दीनदयाल पत्तन प्राधिकरण
DEENDAYAL PORT AUTHORITY

DEENDAYAL PORT AUTHORITY

(FORMELY KANDLA PORT TRUST)

ISO 9001:2015 | ISO 14001 | ISPS compliant port

DETAILED SCHEDULE

OF RATES2022

Chief Engineer
Deendayal Port Authority
Post Box no. 50
Administrative office
Gandhidham – Kachchh
Gujarat – 370201

PREFACE

- THE SOR-2022 OF DEENDAYAL PORT TRUST IS PREPARED BASED ON CPWD SPECIFICATIONS.
- THE REVISED SOR IS PREPARED CONSIDERING THE CPWD DELHI RATES AND BY REDUCING IT BY 30%. THE BIFURCATION IS AS UNDER:

i.	REDUCING FACTOR CONSIDERED FOR KUTCH DISTRICT I.E	8.57%
ii.	GST	14.05%
iii.	CESS	1.00%
iv.	CONTRACTORS PROFITS (15%-10%)	5.00%
	TOTAL	28.62%
	SAY	30.00%

- THIS RATES ARE COMMON FOR GANDHIDHAM/ KANDLA/ VADINAR.

C O N T E N T S		
SUB-HEAD	**DISCRIPTION**	**PAGENO.**
13.0	FINISHING	451 – 520
14.0	REPAIR TO BUILDING	521 - 572
15.0	DISMANTLING AND DEMOLISHING	573 – 604
16.0	ROAD WORK	605 – 713
17.0	SANITARY INSTALLATION	714 – 819
18.0	WATER SUPPLY	820 – 1048
19.0	DRAINAGE	1049 – 1137
20.0	ALUMINUM WORK	1138 - 1168
21.0	WATER PROOFING	1169 - 1190

SUB HEAD 13
FINISHING

SUB HEAD : 13.0

FINISHING

13.1 12 mm cement plaster of mix :

13.1.1 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.144	3713.20	534.70
	LABOUR				
0155	Mason (average)	day	0.67	749.00	501.83
0115	Coolie	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2203.89
	Add 1 % Water charges on "W"				22.04
	TOTAL				2225.93
	Add GST on "X" (multiplying factor 0.1405)				312.74
	TOTAL				2538.68
	Add 15% CPOH on "Y"				380.80
	TOTAL				2919.48
	Add Cess @ 1% on "Z"				29.19
	Cost of 10.00 sqm				2948.67
	Cost of 1.00 sqm				294.87
	Say				294.85
	FOR DPA 30% LESS				206.395

13.1.2 1:6 (1 cement: 6 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 6 (1 cement : 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.144	3044.30	438.38
	LABOUR				0.00
0155	Mason (average)	day	0.67	749.00	501.83
0115	Coolie	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2107.57
	Add 1 % Water charges on "W"				21.08
	TOTAL				2128.65
	Add GST on "X" (multiplying factor 0.1405)				299.08
	TOTAL				2427.72
	Add 15% CPOH on "Y"				364.16
	TOTAL				2791.88
	Add Cess @ 1% on "Z"				27.92
	Cost of 10.00 sqm				2819.80
	Cost of 1.00 sqm				281.98
	Say				282.00
	FOR DPA 30% LESS				197.4

13.2 15 mm cement plaster on the rough side of single or half brick wall of mix :

13.2.1 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.172	3713.20	**638.67**
	LABOUR				**0.00**
0155	Mason (average)	day	0.80	749.00	**599.20**
0115	Coolie	day	0.88	645.00	**567.60**
0101	Bhisti	day	0.99	714.00	**706.86**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2539.06**
	Add 1 % Water charges on "W"				**25.39**
	TOTAL				**2564.45**
	Add GST on "X" (multiplying factor 0.1405)				**360.31**
	TOTAL				**2924.76**
	Add 15% CPOH on "Y"				**438.71**
	TOTAL				**3363.47**
	Add Cess @ 1% on "Z"				**33.63**
	Cost of 10.00 sqm				**3397.11**
	Cost of 1.00 sqm				**339.71**
	Say				**339.70**
	FOR DPA 30% LESS				**237.79**
13.2.2	**1:6 (1 cement: 6 fine sand)**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 6 (1 cement : 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.172	3044.30	**523.62**
	LABOUR				**0.00**
0155	Mason (average)	day	0.80	749.00	**599.20**
0115	Coolie	day	0.88	645.00	**567.60**
0101	Bhisti	day	0.99	714.00	**706.86**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2424.01**
	Add 1 % Water charges on "W"				**24.24**
	TOTAL				**2448.25**
	Add GST on "X" (multiplying factor 0.1405)				**343.98**
	TOTAL				**2792.23**
	Add 15% CPOH on "Y"				**418.83**
	TOTAL				**3211.07**
	Add Cess @ 1% on "Z"				**32.11**
	Cost of 10.00 sqm				**3243.18**
	Cost of 1.00 sqm				**324.32**
	Say				**324.30**
	FOR DPA 30% LESS				**227.01**
13.3	**20 mm cement plaster of mix :**				
13.3.1	**1:4 (1 cement: 4 fine sand)**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.224	3713.20	**831.76**

	LABOUR				**0.00**
0155	Mason (average)	day	0.94	749.00	**704.06**
0115	Coolie	day	1.02	645.00	**657.90**
0101	Bhisti	day	1.10	714.00	**785.40**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**3005.85**
	Add 1 % Water charges on "W"				**30.06**
	TOTAL				**3035.91**
	Add GST on "X" (multiplying factor 0.1405)				**426.55**
	TOTAL				**3462.45**
	Add 15% CPOH on "Y"				**519.37**
	TOTAL				**3981.82**
	Add Cess @ 1% on "Z"				**39.82**
	Cost of 10.00 sqm				**4021.64**
	Cost of 1.00 sqm				**402.16**
	Say				**402.15**
	FOR DPA 30% LESS				**281.505**
13.3.2	**1:6 (1 cement: 6 fine sand)**				

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 6 (1 cement : 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.224	3044.30	**681.92**
	LABOUR				**0.00**
0155	Mason (average)	day	0.94	749.00	**704.06**
0115	Coolie	day	1.02	645.00	**657.90**
0101	Bhisti	day	1.10	714.00	**785.40**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2856.02**
	Add 1 % Water charges on "W"				**28.56**
	TOTAL				**2884.58**
	Add GST on "X" (multiplying factor 0.1405)				**405.28**
	TOTAL				**3289.86**
	Add 15% CPOH on "Y"				**493.48**
	TOTAL				**3783.34**
	Add Cess @ 1% on "Z"				**37.83**
	Cost of 10.00 sqm				**3821.17**
	Cost of 1.00 sqm				**382.12**
	Say				**382.10**
	FOR DPA 30% LESS				**267.47**
13.4	**12 mm cement plaster of mix :**				
13.4.1	**1:4 (1 cement: 4 coarse sand)**				

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.144	4355.20	**627.15**
	LABOUR				**0.00**
0155	Mason (average)	day	0.67	749.00	**501.83**
0115	Coolie	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2296.34**
	Add 1 % Water charges on "W"				**22.96**
	TOTAL				**2319.31**

	Add GST on "X" (multiplying factor 0.1405)				**325.86**
	TOTAL				**2645.17**
	Add 15% CPOH on "Y"				**396.78**
	TOTAL				**3041.94**
	Add Cess @ 1% on "Z"				**30.42**
	Cost of 10.00 sqm				**3072.36**
	Cost of 1.00 sqm				**307.24**
	Say				**307.25**
	FOR DPA 30% LESS				**215.075**

13.4.2	**1:6 (1 cement: 6 coarse sand)**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)				
3.11	Rate as per Item Number 3.11 of SH: Mortars	cum	0.144	3686.30	**530.83**
	LABOUR				**0.00**
0155	Mason (average)	day	0.67	749.00	**501.83**
0115	Coolie	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2200.02**
	Add 1 % Water charges on "W"				**22.00**
	TOTAL				**2222.02**
	Add GST on "X" (multiplying factor 0.1405)				**312.19**
	TOTAL				**2534.21**
	Add 15% CPOH on "Y"				**380.13**
	TOTAL				**2914.35**
	Add Cess @ 1% on "Z"				**29.14**
	Cost of 10.00 sqm				**2943.49**
	Cost of 1.00 sqm				**294.35**
	Say				**294.35**
	FOR DPA 30% LESS				**206.045**

13.4 **13.4.1**	**12 mm cement plaster of mix :** **1:4 (1 cement: 4 coarse sand)**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.144	4355.20	**627.15**
	LABOUR				**0.00**
0155	Mason (average)	day	0.67	749.00	**501.83**
0115	Coolie	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2296.34**
	Add 1 % Water charges on "W"				**22.96**
	TOTAL				**2319.31**
	Add GST on "X" (multiplying factor 0.1405)				**325.86**
	TOTAL				**2645.17**
	Add 15% CPOH on "Y"				**396.78**
	TOTAL				**3041.94**

	Add Cess @ 1% on "Z"				**30.42**
	Cost of 10.00 sqm				**3072.36**
	Cost of 1.00 sqm				**307.24**
	Say				**307.25**
	FOR DPA 30% LESS				**215.075**

13.4.2	**1:6 (1 cement: 6 coarse sand)**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)				
3.11	Rate as per Item Number 3.11 of SH: Mortars	cum	0.144	3686.30	**530.83**
	LABOUR				**0.00**
0155	Mason (average)	day	0.67	749.00	**501.83**
0115	Coolie	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2200.02**
	Add 1 % Water charges on "W"				**22.00**
	TOTAL				**2222.02**
	Add GST on "X" (multiplying factor 0.1405)				**312.19**
	TOTAL				**2534.21**
	Add 15% CPOH on "Y"				**380.13**
	TOTAL				**2914.35**
	Add Cess @ 1% on "Z"				**29.14**
	Cost of 10.00 sqm				**2943.49**
	Cost of 1.00 sqm				**294.35**
	Say				**294.35**
	FOR DPA 30% LESS				**206.045**

13.5	**15 mm cement plaster on rough side of single or half brick wall of mix:**				
13.5.1	**1:4 (1 cement: 4 coarse sand)**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.172	4355.20	**749.09**
	LABOUR				**0.00**
0155	Mason (average)	day	0.80	749.00	**599.20**
0115	Coolie	day	0.88	645.00	**567.60**
0101	Bhisti	day	0.99	714.00	**706.86**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2649.49**
	Add 1 % Water charges on "W"				**26.49**
	TOTAL				**2675.98**
	Add GST on "X" (multiplying factor 0.1405)				**375.98**
	TOTAL				**3051.96**
	Add 15% CPOH on "Y"				**457.79**
	TOTAL				**3509.75**
	Add Cess @ 1% on "Z"				**35.10**
	Cost of 10.00 sqm				**3544.85**
	Cost of 1.00 sqm				**354.48**
	Say				**354.50**
	FOR DPA 30% LESS				**248.15**
13.5.2	**1:6 (1 cement: 6 coarse sand)**				

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)				
3.11	Rate as per Item Number 3.11 of SH: Mortars	cum	0.172	3686.30	**634.04**
	LABOUR				**0.00**
0155	Mason (average)	day	0.80	749.00	**599.20**
0115	Coolie	day	0.88	645.00	**567.60**
0101	Bhisti	day	0.99	714.00	**706.86**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2534.44**
	Add 1 % Water charges on "W"				**25.34**
	TOTAL				**2559.78**
	Add GST on "X" (multiplying factor 0.1405)				**359.65**
	TOTAL				**2919.43**
	Add 15% CPOH on "Y"				**437.91**
	TOTAL				**3357.34**
	Add Cess @ 1% on "Z"				**33.57**
	Cost of 10.00 sqm				**3390.92**
	Cost of 1.00 sqm				**339.09**
	Say				**339.10**
	FOR DPA 30% LESS				**237.37**

13.6 20 mm cement plaster of mix :

13.6.1 1:4 (1 cement: 4 coarse sand)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.224	4355.20	**975.56**
	LABOUR				**0.00**
0155	Mason (average)	day	0.94	749.00	**704.06**
0115	Coolie	day	1.02	645.00	**657.90**
0101	Bhisti	day	1.10	714.00	**785.40**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**3149.66**
	Add 1 % Water charges on "W"				**31.50**
	TOTAL				**3181.15**
	Add GST on "X" (multiplying factor 0.1405)				**446.95**
	TOTAL				**3628.11**
	Add 15% CPOH on "Y"				**544.22**
	TOTAL				**4172.32**
	Add Cess @ 1% on "Z"				**41.72**
	Cost of 10.00 sqm				**4214.05**
	Cost of 1.00 sqm				**421.40**
	Say				**421.40**
	FOR DPA 30% LESS				**294.98**

13.6.2 1:6 (1 cement: 6 coarse sand)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)				
3.11	Rate as per Item Number 3.11 of SH: Mortars	cum	0.224	3686.30	**825.73**
	LABOUR				**0.00**

0155	Mason (average)	day	0.94	749.00	**704.06**
0115	Coolie	day	1.02	645.00	**657.90**
0101	Bhisti	day	1.10	714.00	**785.40**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2999.82**
	Add 1 % Water charges on "W"				**30.00**
	TOTAL				**3029.82**
	Add GST on "X" (multiplying factor 0.1405)				**425.69**
	TOTAL				**3455.51**
	Add 15% CPOH on "Y"				**518.33**
	TOTAL				**3973.84**
	Add Cess @ 1% on "Z"				**39.74**
	Cost of 10.00 sqm				**4013.58**
	Cost of 1.00 sqm				**401.36**
	Say				**401.35**
	FOR DPA 30% LESS				**280.945**

13.7 **12 mm cement plaster finished with a floating coat of neat cement of mix :**

13.7.1 **1:3 (1 cement: 3 fine sand)**

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.144	4382.15	**631.03**
	LABOUR				**0.00**
0155	Mason (average)	day	0.67	749.00	**501.83**
0115	Coolie	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	**100.00**
2209	Carriage of Cement	tonne	0.02	145.72	**2.91**
0155	Mason (average)	day	0.27	749.00	**202.23**
0115	Coolie	day	0.27	645.00	**174.15**
9999	Scaffolding and sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**2796.60**
	Add 1 % Water charges on "W"				**27.97**
	TOTAL				**2824.57**
	Add GST on "X" (multiplying factor 0.1405)				**396.85**
	TOTAL				**3221.42**
	Add 15% CPOH on "Y"				**483.21**
	TOTAL				**3704.64**
	Add Cess @ 1% on "Z"				**37.05**
	Cost of 10.00 sqm				**3741.68**
	Cost of 1.00 sqm				**374.17**
	Say				**374.15**
	FOR DPA 30% LESS				**261.905**

13.7.2 **1:4 (1 cement: 4 fine sand)**

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.144	3713.20	**534.70**
	LABOUR				**0.00**
0155	Mason (average)	day	0.67	749.00	**501.83**
0115	Coolie	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**

9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	**100.00**
2209	Carriage of Cement	tonne	0.02	145.72	**2.91**
0155	Mason (average)	day	0.27	749.00	**202.23**
0115	Coolie	day	0.27	645.00	**174.15**
9999	Scaffolding and sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**2700.28 W**
	Add 1 % Water charges on "W"				**27.00**
	TOTAL				**2727.28 X**
	Add GST on "X" (multiplying factor 0.1405)				**383.18**
	TOTAL				**3110.46 Y**
	Add 15% CPOH on "Y"				**466.57**
	TOTAL				**3577.03 Z**
	Add Cess @ 1% on "Z"				**35.77**
	Cost of 10.00 sqm				**3612.80**
	Cost of 1.00 sqm				**361.28**
	Say				**361.30**
	FOR DPA 30% LESS				**252.91**

13.8 15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix :

13.8.1 1:3 (1 cement: 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.172	4382.15	**753.73**
	LABOUR				**0.00**
0155	Mason (average)	day	0.80	749.00	**599.20**
0115	Coolie	day	0.88	645.00	**567.60**
0101	Bhisti	day	0.99	714.00	**706.86**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	**100.00**
2209	Carriage of Cement	tonne	0.02	145.72	**2.91**
0155	Mason (average)	day	0.27	749.00	**202.23**
0115	Coolie	day	0.27	645.00	**174.15**
9999	Scaffolding and sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**3150.50**
	Add 1 % Water charges on "W"				**31.51**
	TOTAL				**3182.01**
	Add GST on "X" (multiplying factor 0.1405)				**447.07**
	TOTAL				**3629.08**
	Add 15% CPOH on "Y"				**544.36**
	TOTAL				**4173.44**
	Add Cess @ 1% on "Z"				**41.73**
	Cost of 10.00 sqm				**4215.18**
	Cost of 1.00 sqm				**421.52**
	Say				**421.50**
	FOR DPA 30% LESS				**295.05**

13.8.2 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of				

	SH: Mortars	cum	0.172	3713.20	**638.67**
	LABOUR				**0.00**
0155	Mason (average)	day	0.80	749.00	**599.20**
0115	Coolie	day	0.88	645.00	**567.60**
0101	Bhisti	day	0.99	714.00	**706.86**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	**100.00**
2209	Carriage of Cement	tonne	0.02	145.72	**2.91**
0155	Mason (average)	day	0.27	749.00	**202.23**
0115	Coolie	day	0.27	645.00	**174.15**
9999	Scaffolding and sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**3035.45**
	Add 1 % Water charges on "W"				**30.35**
	TOTAL				**3065.80**
	Add GST on "X" (multiplying factor 0.1405)				**430.74**
	TOTAL				**3496.54**
	Add 15% CPOH on "Y"				**524.48**
	TOTAL				**4021.03**
	Add Cess @ 1% on "Z"				**40.21**
	Cost of 10.00 sqm				**4061.24**
	Cost of 1.00 sqm				**406.12**
	Say				**406.10**
	FOR DPA 30% LESS				**284.27**

13.9 **Cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement.**

13.9.1 **12 mm cement plaster**

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1:3 (1 cement : 3 coarse sand)				
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.144	5024.15	**723.48**
	LABOUR				**0.00**
0155	Mason (average)	day	0.67	749.00	**501.83**
0115	Coolie	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	**100.00**
2209	Carriage of Cement	tonne	0.02	145.72	**2.91**
0155	Mason (average)	day	0.27	749.00	**202.23**
0115	Coolie	day	0.27	645.00	**174.15**
9999	Scaffolding and sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**2889.05**
	Add 1 % Water charges on "W"				**28.89**
	TOTAL				**2917.94**
	Add GST on "X" (multiplying factor 0.1405)				**409.97**
	TOTAL				**3327.91**
	Add 15% CPOH on "Y"				**499.19**
	TOTAL				**3827.10**
	Add Cess @ 1% on "Z"				**38.27**
	Cost of 10.00 sqm				**3865.37**
	Cost of 1.00 sqm				**386.54**
	Say				**386.55**
	FOR DPA 30% LESS				**270.585**

13.9.2 **20 mm cement plaster**

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1:3 (1 cement :				

	3 coarse sand)				
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.224	5024.15	**1125.41**
	LABOUR				**0.00**
0155	Mason (average)	day	0.94	749.00	**704.06**
0115	Coolie	day	1.02	645.00	**657.90**
0101	Bhisti	day	1.10	714.00	**785.40**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	**100.00**
2209	Carriage of Cement	tonne	0.02	145.72	**2.91**
0155	Mason (average)	day	0.27	749.00	**202.23**
0115	Coolie	day	0.27	645.00	**174.15**
9999	Scaffolding and sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**3795.88**
	Add 1 % Water charges on "W"				**37.96**
	TOTAL				**3833.84**
	Add GST on "X" (multiplying factor 0.1405)				**538.65**
	TOTAL				**4372.50**
	Add 15% CPOH on "Y"				**655.87**
	TOTAL				**5028.37**
	Add Cess @ 1% on "Z"				**50.28**
	Cost of 10.00 sqm				**5078.66**
	Cost of 1.00 sqm				**507.87**
	Say				**507.85**
	FOR DPA 30% LESS				**355.50**

13.10 15 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement on the rough side of single or half brick wall.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1:3 (1 cement : 3 coarse sand)				
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.172	5024.15	**864.15**
	LABOUR				**0.00**
0155	Mason (average)	day	0.80	749.00	**599.20**
0115	Coolie	day	0.88	645.00	**567.60**
0101	Bhisti	day	0.99	714.00	**706.86**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	**100.00**
2209	Carriage of Cement	tonne	0.02	145.72	**2.91**
0155	Mason (average)	day	0.27	749.00	**202.23**
0115	Coolie	day	0.27	645.00	**174.15**
9999	Scaffolding and sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**3260.93**
	Add 1 % Water charges on "W"				**32.61**
	TOTAL				**3293.54**
	Add GST on "X" (multiplying factor 0.1405)				**462.74**
	TOTAL				**3756.28**
	Add 15% CPOH on "Y"				**563.44**
	TOTAL				**4319.72**
	Add Cess @ 1% on "Z"				**43.20**
	Cost of 10.00 sqm				**4362.92**
	Cost of 1.00 sqm				**436.29**
	Say				**436.30**
	FOR DPA 30% LESS				**305.41**

13.11 18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand).

Code	Description	Unit	Quantity	Rate	Amount
3.10	Detail of cost for 10 sqm MATERIAL				
3.6	Under layer Cement mortar				
0155	1 : 5 (1 cement : 5 coarse sand) Rate as per		0.144	3995.00	**575.28**
0115	Item Number 3.10 of SH: Mortars	cum	0.072	3044.30	**219.19**
0101	Top layer Cement mortar	cum	1.21	749.00	**906.29**
	1 : 6 (1 cement : 6 fine sand) Rate as per Item	day day day	1.29	645.00	**832.05**
	Number 3.6 of SH: Mortars		1.05	714.00	**749.70**
	LABOUR				
	Mason (average) Coolie				
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**3309.24 W**
	Add 1 % Water charges on "W"				**33.09**
	TOTAL				**3342.34 X**
	Add GST on "X" (multiplying factor 0.1405)				**469.60**
	TOTAL				**3811.93 Y**
	Add 15% CPOH on "Y"				**571.79**
	TOTAL				**4383.72 Z**
	Add Cess @ 1% on "Z"				**43.84**
	Cost of 10.00 sqm				**4427.56**
	Cost of 1.00 sqm				**442.76**
	Say				**442.75**
	FOR DPA 30% LESS				**309.925**

13.12 18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Under layer Cement mortar				
	1 : 5 (1 cement : 5 coarse sand)				
3.10	Rate as per Item Number 3.10 of				
	SH: Mortars	cum	0.144	3995.00	**575.28**
	Top layer Cement mortar				**0.00**
	1:3 (1 cement : 3 coarse sand)				**0.00**
3.8	Rate as per Item Number 3.8 of				**0.00**
	SH: Mortars	cum	0.072	5024.15	**361.74**
	LABOUR				**0.00**
0155	Mason (average)	day	1.21	749.00	**906.29**
0115	Coolie	day	1.29	645.00	**832.05**
0101	Bhisti	day	1.05	714.00	**749.70**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**3451.79**
	Add 1 % Water charges on “W”				**34.52**
	TOTAL				**3486.31**
	Add GST on “X” (multiplying factor 0.1405)				**489.83**
	TOTAL				**3976.14**
	Add 15% CPOH on “Y”				**596.42**
	TOTAL				**4572.56**
	Add Cess @ 1% on “Z”				**45.73**
	Cost of 10.00 sqm				**4618.28**
	Cost of 1.00 sqm				**461.83**
	Say				**461.85**
	FOR DPA 30% LESS				**323.295**

13.13 12 mm cement plaster 1:2 (1 cement : 2 stone dust).

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				

Code	Description	Unit	Quantity	Rate	Amount
	MATERIAL				
	Cement mortar 1:2 (1 Cement : 2 stone dust)				
3.12	Rate as per Item Number 3.12 of SH: Mortars	cum	0.144	5319.25	**765.97**
	LABOUR				**0.00**
0155	Mason (average)	day	0.67	749.00	**501.83**
0115	Coolie	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2435.17**
	Add 1 % Water charges on "W"				**24.35**
	TOTAL				**2459.52**
	Add GST on "X" (multiplying factor 0.1405)				**345.56**
	TOTAL				**2805.08**
	Add 15% CPOH on "Y"				**420.76**
	TOTAL				**3225.84**
	Add Cess @ 1% on "Z"				**32.26**
	Cost of 10.00 sqm				**3258.10**
	Cost of 1.00 sqm				**325.81**
	Say				**325.80**
	FOR DPA 30% LESS				**228.06**

13.14 15 mm cement plaster 1:2 (1 cement : 2 stone dust) on the rough side of single or half brick wall.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1:2 (1 Cement : 2 stone dust)				
3.12	Rate as per Item Number 3.12 of SH: Mortars	cum	0.172	5319.25	**914.91**
	LABOUR				**0.00**
0155	Mason (average)	day	0.80	749.00	**599.20**
0115	Coolie	day	0.88	645.00	**567.60**
0101	Bhisti	day	0.99	714.00	**706.86**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2815.30**
	Add 1 % Water charges on "W"				**28.15**
	TOTAL				**2843.46**
	Add GST on "X" (multiplying factor 0.1405)				**399.51**
	TOTAL				**3242.96**
	Add 15% CPOH on "Y"				**486.44**
	TOTAL				**3729.41**
	Add Cess @ 1% on "Z"				**37.29**
	Cost of 10.00 sqm				**3766.70**
	Cost of 1.00 sqm				**376.67**
	Say				**376.65**
	FOR DPA 30% LESS				**263.655**

13.15 20 mm cement plaster 1:2 (1 cement : 2 stone dust).

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1:2 (1 Cement : 2 stone dust)				
3.12	Rate as per Item Number 3.12 of SH: Mortars	cum	0.224	5319.25	**1191.51**
	LABOUR				**0.00**
0155	Mason (average)	day	0.94	749.00	**704.06**

Code	Description	Unit	Quantity	Rate	Amount
0115	Coolie	day	1.02	645.00	**657.90**
0101	Bhisti	day	1.10	714.00	**785.40**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**3365.61**
	Add 1 % Water charges on "W"				**33.66**
	TOTAL				**3399.26**
	Add GST on "X" (multiplying factor 0.1405)				**477.60**
	TOTAL				**3876.86**
	Add 15% CPOH on "Y"				**581.53**
	TOTAL				**4458.39**
	Add Cess @ 1% on "Z"				**44.58**
	Cost of 10.00 sqm				**4502.97**
	Cost of 1.00 sqm				**450.30**
	Say				**450.30**
	FOR DPA 30% LESS				**315.21**

13.16 6 mm cement plaster of mix :

13.16.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.072	4382.15	**315.51**
	LABOUR				**0.00**
0155	Mason (average)	day	0.51	749.00	**381.99**
0115	Coolie	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**
9999	Extra for removing burrs, cleaning with				**0.00**
	wire brushes, pock making with pointed				**0.00**
	tool etc. complete.	L.S.	13.39	2.12	**28.39**
9999	Scaffolding and sundries	L.S.	11.70	2.12	**24.80**
	TOTAL				**1891.33**
	Add 1 % Water charges on "W"				**18.91**
	TOTAL				**1910.24**
	Add GST on "X" (multiplying factor 0.1405)				**268.39**
	TOTAL				**2178.63**
	Add 15% CPOH on "Y"				**326.79**
	TOTAL				**2505.42**
	Add Cess @ 1% on "Z"				**25.05**
	Cost of 10.00 sqm				**2530.48**
	Cost of 1.00 sqm				**253.05**
	Say				**253.05**
	FOR DPA 30% LESS				**177.135**

13.17 6 mm cement plaster 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.072	4382.15	**315.51**
	LABOUR				**0.00**
0155	Mason (average)	day	0.51	749.00	**381.99**
0115	Coolie	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**
9999	Extra for removing burrs, cleaning with				**0.00**

Code	Description	Unit	Quantity	Rate	Amount
	wire brushes, pock making with pointed				**0.00**
	tool etc. complete.	L.S.	13.39	2.12	**28.39**
9999	Scaffolding and sundries	L.S.	11.7	2.12	**24.80**
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	**100.00**
2209	Carriage of Cement	tonne	0.02	145.72	**2.91**
0155	Mason (average)	day	0.27	749.00	**202.23**
0115	Coolie	day	0.27	645.00	**174.15**
9999	Scaffolding and sundries	L.S.	8.06	2.12	**17.09**
0776	Satna lime	quintal	0.01	370.00	**3.70**
9999	Indigo gum etc	L.S.	2.08	2.12	**4.41**
9999	Sundries ladder etc.	L.S.	0.52	2.12	**1.10**
0141	White Washer	day	0.07	714.00	**49.98**
0115	Coolie	day	0.07	645.00	**45.15**
9999	Sundries	L.S.	2.73	2.12	**5.79**
	TOTAL				**2497.84**
	Add 1 % Water charges on “W”				**24.98**
	TOTAL				**2522.82**
	Add GST on “X” (multiplying factor 0.1405)				**354.46**
	TOTAL				**2877.27**
	Add 15% CPOH on “Y”				**431.59**
	TOTAL				**3308.86**
	Add Cess @ 1% on “Z”				**33.09**
	Cost of 10.00 sqm				**3341.95**
	Cost of 1.00 sqm				**334.19**
	Say				**334.20**
	FOR DPA 30% LESS				**233.94**

13.18 Neat cement punning.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0367	Portland Cement (OPC-43 grade)	tonne	0.022	5000.00	**110.00**
2209	Carriage of Cement	tonne	0.022	145.72	**3.21**
0155	Mason (average)	day	0.27	749.00	**202.23**
0115	Coolie	day	0.27	645.00	**174.15**
9999	Scaffolding and sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**506.67 W**
	Add 1 % Water charges on "W"				**5.07**
	TOTAL				**511.74 X**
	Add GST on "X" (multiplying factor 0.1405)				**71.90**
	TOTAL				**583.64 Y**
	Add 15% CPOH on "Y"				**87.55**
	TOTAL				**671.19 Z**
	Add Cess @ 1% on "Z"				**6.71**
	Cost of 10.00 sqm				**677.90**
	Cost of 1.00 sqm				**67.79**
	Say				**67.80**
	FOR DPA 30% LESS				**47.46**

13.19 Rough cast plaster upto 10 m height above ground level with a mixture of sand and gravel or crushed stone from 6 mm to 10 mm nominal size, dashed over and including the fresh plaster in two layers, under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10 mm cement plaster 1:3 (1 cement : 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement.

13.19.1 Ordinary cement finish using ordinary cement

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Under layer 12 mm thick cement plaster				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				

3.9	Rate as per Item Number 3.9 of				
	SH: Mortars	cum	0.144	4355.20	**627.15**
	LABOUR				**0.00**
0155	Mason (average)	day	0.67	749.00	**501.83**
0114	Beldar	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**
9999	Scaffolding and sundries	L.S.	9.88	2.12	**20.95**
	Top layer 10 mm thick cement plaster				**0.00**
	Cement mortar 1 : 3 (1 cement :				**0.00**
	3 fine sand)				**0.00**
3.3	Rate as per Item Number 3.3 of				**0.00**
	SH: Mortars	cum	0.12	4382.15	**525.86**
0155	Mason (average)	day	0.61	749.00	**456.89**
0114	Beldar	day	0.69	645.00	**445.05**
0101	Bhisti	day	0.85	714.00	**606.90**
9999	Scaffolding and sundries	L.S.	9.88	2.12	**20.95**
1179	Crushed stone 2.36 mm to				**0.00**
	12.5 mm size	cum	0.10	900.00	**90.00**
0101	Bhisti	day	0.01	714.00	**7.14**
0777	Dry hydrated lime (factory made)	quintal	0.09	290.00	**26.10**
9977	Carriage of lime	L.S.	3.64	2.12	**7.72**
0155	Mason (average)	day	0.50	749.00	**374.50**
0114	Beldar	day	0.50	645.00	**322.50**
0101	Bhisti	day	0.10	714.00	**71.40**
9999	Scaffolding and sundries	L.S.	9.88	2.12	**20.95**
	Labour for scooping				**0.00**
0123	Mason (brick layer) 1st class	day	0.25	784.00	**196.00**
0114	Beldar	day	0.25	645.00	**161.25**
	TOTAL				**5623.75**
	Add 1 % Water charges on “W”				**56.24**
	TOTAL				**5679.99**
	Add GST on “X” (multiplying factor 0.1405)				**798.04**
	TOTAL				**6478.03**
	Add 15% CPOH on “Y”				**971.70**
	TOTAL				**7449.73**
	Add Cess @ 1% on “Z”				**74.50**
	Cost of 10.00 sqm				**7524.23**
	Cost of 1.00 sqm				**752.42**
	Say				**752.40**
	FOR DPA 30% LESS				**526.68**

13.20 Pebble dash plaster upto 10 m height above ground level with a mixture of washed pebble or crushed stone 6 mm to 12.5 mm nominal size, dashed over and including fresh plaster in two layers under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10 mm cement plaster with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Under layer 12 mm thick cement plaster				
	Cement mortar 1 : 4 (1 cement :				
	4 coarse sand)				
3.9	Rate as per Item Number 3.9 of				
	SH: Mortars	cum	0.144	4355.20	**627.15**
	LABOUR				**0.00**
0155	Mason (average)	day	0.67	749.00	**501.83**
0114	Beldar	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**
9999	Scaffolding and sundries	L.S.	9.88	2.12	**20.95**

	Top layer 10 mm thick cement plaster				**0.00**
	Cement mortar 1 : 3 (1 cement :				**0.00**
	3 fine sand)				**0.00**
3.3	Rate as per Item Number 3.3 of				**0.00**
	SH: Mortars	cum	0.12	4382.15	**525.86**
0155	Mason (average)	day	0.61	749.00	**456.89**
0114	Beldar	day	0.69	645.00	**445.05**
0101	Bhisti	day	0.85	714.00	**606.90**
9999	Scaffolding and sundries	L.S.	9.88	2.12	**20.95**
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	0.10	900.00	**90.00**
0101	Bhisti	day	0.01	714.00	**7.14**
0777	Dry hydrated lime (factory made)	quintal	0.09	290.00	**26.10**
9977	Carriage of lime	L.S.	3.64	2.12	**7.72**
0155	Mason (average)	day	0.50	749.00	**374.50**
0114	Beldar	day	0.50	645.00	**322.50**
0101	Bhisti	day	0.10	714.00	**71.40**
9999	Scaffolding and sundries	L.S.	9.88	2.12	**20.95**
9999	Scaffolding and sundries	L.S.	4.42	2.12	**9.37**
	TOTAL				**5275.87 W**
	Add 1 % Water charges on "W"				**52.76**
	TOTAL				**5328.63 X**
	Add GST on "X" (multiplying factor 0.1405)				**748.67**
	TOTAL				**6077.30 Y**
	Add 15% CPOH on "Y"				**911.60**
	TOTAL				**6988.90 Z**
	Add Cess @ 1% on "Z"				**69.89**
	Cost of 10.00 sqm				**7058.79**
	Cost of 1.00 sqm				**705.88**
	Say				**705.90**
	FOR DPA 30% LESS				**494.13**

13.20 Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 12mm cement plaster 1:3				
	(1 cement :3 sand) = 10 sqm or				
	1.48 bags of cement used in the mix.				
	Cement required for 10 sqm = 73.89kg.				
	Water proofing material required @				
	1 kg per 50 kg of cement = 1.48 kg.				
1213	Water proofing materials	kilogram	1.48	35.00	**51.80**
9999	Sundries	L.S.	7.15	2.12	**15.16**
	TOTAL				**66.96**
	Add 1 % Water charges on "W"				**0.67**
	TOTAL				**67.63**
	Add GST on "X" (multiplying factor 0.1405)				**9.50**
	TOTAL				**77.13**
	Add 15% CPOH on "Y"				**11.57**
	TOTAL				**88.70**
	Add Cess @ 1% on "Z"				**0.89**
	Cost of 1.48 bags of cement used in the mix.				**89.59**
	Cost of 1.00 bag of 50 kg cement used in the mix.				**60.53**
	Say				**60.55**
	FOR DPA 30% LESS				**42.385**

13.21 Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.

Code	Description	Unit	Quantity	Rate	Amount

Code	Description	Unit	Quantity	Rate	Amount
9999	Detail of cost for 10 sqm Scaffolding and sundries	L.S.	53.82	2.12	**114.10**
	LABOUR				**0.00**
0155	Mason (average)	day	0.20	749.00	**149.80**
0115	Coolie	day	0.30	645.00	**193.50**
0101	Bhisti	day	0.10	714.00	**71.40**
9999	Sundries	L.S.	7.15	2.12	**15.16**
	TOTAL				**543.96**
	Add 1 % Water charges on “W”				**5.44**
	TOTAL				**549.40**
	Add GST on “X” (multiplying factor 0.1405)				**77.19**
	TOTAL				**626.59**
	Add 15% CPOH on “Y”				**93.99**
	TOTAL				**720.57**
	Add Cess @ 1% on “Z”				**7.21**
	Cost of 10.00 sqm				**727.78**
	Cost of 1.00 sqm				**72.78**
	Say				**72.80**
	FOR DPA 30% LESS				**50.96**

13.22 Extra for plastering on circular work not exceeding 6 m in radius:

13.22.1 In one coat

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0155	Mason (average)	day	0.20	749.00	**149.80**
0114	Beldar	day	0.20	645.00	**129.00**
9999	Sundries	L.S.	7.15	2.12	**15.16**
	TOTAL				**293.96**
	Add 1 % Water charges on “W”				**2.94**
	TOTAL				**296.90**
	Add GST on “X” (multiplying factor 0.1405)				**41.71**
	TOTAL				**338.61**
	Add 15% CPOH on “Y”				**50.79**
	TOTAL				**389.40**
	Add Cess @ 1% on “Z”				**3.89**
	Cost of 10.00 sqm				**393.30**
	Cost of 1.00 sqm				**39.33**
	Say				**39.35**
	FOR DPA 30% LESS				**27.545**

13.22.2 In two coats

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0155	Mason (average)	day	0.30	749.00	**224.70**
0114	Beldar	day	0.30	645.00	**193.50**
9999	Sundries	L.S.	13.39	2.12	**28.39**
	TOTAL				**446.59 W**
	Add 1 % Water charges on “W”				**4.47**
	TOTAL				**451.05 X**
	Add GST on “X” (multiplying factor 0.1405)				**63.37**
	TOTAL				**514.43 Y**
	Add 15% CPOH on “Y”				**77.16**
	TOTAL				**591.59 Z**
	Add Cess @ 1% on “Z”				**5.92**
	Cost of 10.00 sqm				**597.51**
	Cost of 1.00 sqm				**59.75**
	Say				**59.75**
	FOR DPA 30% LESS				**41.825**

13.23 Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Plaster of paris 10x0.002x1121 = 22.42kg				
	Add 2% wastage= 0.45kg				
	Total = 22.87kg. Say23kg				
0869	Plaster of Paris	kilogram	23.00	5.00	**115.00**
9977	Carriage of plaster of paris	L.S.	3.90	2.12	**8.27**
	LABOUR				**0.00**
0122	Mason (for plaster of paris work)				**0.00**
	1st class	day	0.91	784.00	**713.44**
0114	Beldar	day	0.91	645.00	**586.95**
9999	Scaffolding and sundries	L.S.	83.98	2.12	**178.04**
	TOTAL				**1601.70**
	Add 1 % Water charges on “W”				**16.02**
	TOTAL				**1617.71**
	Add GST on “X” (multiplying factor 0.1405)				**227.29**
	TOTAL				**1845.00**
	Add 15% CPOH on “Y”				**276.75**
	TOTAL				**2121.75**
	Add Cess @ 1% on “Z”				**21.22**
	Cost of 10.00 sqm				**2142.97**
	Cost of 1.00 sqm				**214.30**
	Say				**214.30**
	FOR DPA 30% LESS				**150.01**

13.24 White washing with lime to give an even shade :

13.24.1 New work (three or more coats)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0775	Dehradun white lime	quintal	0.03	600.00	**18.00**
9977	Carriage of lime	L.S.	0.91	2.12	**1.93**
	LABOUR				**0.00**
0141	White Washer	day	0.20	714.00	**142.80**
0115	Coolie	day	0.10	645.00	**64.50**
9999	Indigo gum etc	L.S.	4.42	2.12	**9.37**
9999	Sundries ladders etc	L.S.	2.73	2.12	**5.79**
	TOTAL				**242.39**
	Add 1 % Water charges on “W”				**2.42**
	TOTAL				**244.81**
	Add GST on “X” (multiplying factor 0.1405)				**34.40**
	TOTAL				**279.21**
	Add 15% CPOH on “Y”				**41.88**
	TOTAL				**321.09**
	Add Cess @ 1% on “Z”				**3.21**
	Cost of 10.00 sqm				**324.30**
	Cost of 1.00 sqm				**32.43**
	Say				**32.45**
	FOR DPA 30% LESS				22.72

13.25 Satna lime wash on walls with one coat.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				

	MATERIAL				
0776	Satna lime	quintal	0.01	370.00	**3.70**
9977	Carriage of lime	L.S.	2.08	2.12	**4.41**
9999	Indigo gum etc	L.S.	0.52	2.12	**1.10**
	LABOUR				**0.00**
0141	White Washer	day	0.08	714.00	**57.12**
0115	Coolie	day	0.04	645.00	**25.80**
9999	Sundries ladders etc	L.S.	2.73	2.12	**5.79**
	TOTAL				**97.92**
	Add 1 % Water charges on "W"				**0.98**
	TOTAL				**98.90**
	Add GST on "X" (multiplying factor 0.1405)				**13.90**
	TOTAL				**112.79**
	Add 15% CPOH on "Y"				**16.92**
	TOTAL				**129.71**
	Add Cess @ 1% on "Z"				**1.30**
	Cost of 10.00 sqm				**131.01**
	Cost of 1.00 sqm				**13.10**
	Say				**13.10**
	FOR DPA 30% LESS				**9.17**

13.26 Colour washing such as green, blue or buff to give an even shade :

13.26.1 New work (two or more coats) with a base coat of white washing with lime

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0775	Dehradun white lime	quintal	0.03	600.00	**18.00**
9977	Carriage of lime	L.S.	8.06	2.12	**17.09**
9999	Add for colouring stuff	L.S.	0.91	2.12	**1.93**
	LABOUR				**0.00**
0141	White Washer	day	0.30	714.00	**214.20**
0115	Coolie	day	0.10	645.00	**64.50**
9999	Indigo gum etc	L.S.	4.42	2.12	**9.37**
9999	Sundries ladders etc	L.S.	2.73	2.12	**5.79**
	TOTAL				**330.87**
	Add 1 % Water charges on "W"				**3.31**
	TOTAL				**334.18**
	Add GST on "X" (multiplying factor 0.1405)				**46.95**
	TOTAL				**381.14**
	Add 15% CPOH on "Y"				**57.17**
	TOTAL				**438.31**
	Add Cess @ 1% on "Z"				**4.38**
	Cost of 10.00 sqm				**442.69**
	Cost of 1.00 sqm				**44.27**
	Say				**44.25**
	FOR DPA 30% LESS				**30.98**

13.26.2 New work (two or more coats) with a base coat of whiting

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0775	Dehradun white lime	quintal	0.03	600.00	**18.00**
9977	Carriage of lime	L.S.	8.06	2.12	**17.09**
9999	Add for colouring stuff	L.S.	0.91	2.12	**1.93**
	LABOUR				**0.00**
0141	White Washer	day	0.30	714.00	**214.20**
0115	Coolie	day	0.10	645.00	**64.50**
9999	Indigo gum etc	L.S.	2.73	2.12	**5.79**
9999	Sundries ladders etc	L.S.	2.73	2.12	**5.79**
	TOTAL				**327.29**
	Add 1 % Water charges on "W"				**3.27**

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				**330.56**
	Add GST on "X" (multiplying factor 0.1405)				**46.44**
	TOTAL				**377.01**
	Add 15% CPOH on "Y"				**56.55**
	TOTAL				**433.56**
	Add Cess @ 1% on "Z"				**4.34**
	Cost of 10.00 sqm				**437.90**
	Cost of 1.00 sqm				**43.79**
	Say				**43.80**
	FOR DPA 30% LESS				**30.66**

13.28 Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :

13.28.1 New work (two or more coats) over and including water thinnable priming coat with cement primer

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 gms/lit.	litre	0.70	50.00	**35.00**
9999	Brushes, putty etc	L.S.	7.15	2.12	**15.16**
9988	Sundries including Carriage	L.S.	8.06	2.12	**17.09**
0802	Acrylic distemper 1st quality , having				**0.00**
	VOC content less than 50 grams/ litre	kilogram	1.50	40.00	**60.00**
9977	Carriage of material	L.S.	4.42	2.12	**9.37**
9999	Brushes, sand paper and putty for filling				**0.00**
	holes	L.S.	11.70	2.12	**24.80**
	LABOUR				**0.00**
0131	Painter	day	1.00	714.00	**714.00**
0115	Coolie	day	0.50	645.00	**322.50**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**1215.01 W**
	Add 1 % Water charges on "W"				**12.15**
	TOTAL				**1227.16 X**
	Add GST on "X" (multiplying factor 0.1405)				**172.42**
	TOTAL				**1399.57 Y**
	Add 15% CPOH on "Y"				**209.94**
	TOTAL				**1609.51 Z**
	Add Cess @ 1% on "Z"				**16.10**
	Cost of 10.00 sqm				**1625.60**
	Cost of 1.00 sqm				**162.56**
	Say				**162.55**
	FOR DPA 30% LESS				**113.785**

13.27 Distempering with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gms/litre, of approved manufacturer, of required shade and colour complete, as per manufacturer's specification.

13.27.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0802	Acrylic distemper 1st quality , having VOC content less than 50 grams/ litre	kilogram	1.50	40.00	**60.00**
9977	Carriage of material	L.S.	4.42	2.12	**9.37**
9999	Brushes, sand paper and putty for				**0.00**
	filling holes	L.S.	11.57	2.12	**24.53**
	LABOUR				**0.00**
0131	Painter	day	0.40	714.00	**285.60**
0114	Beldar	day	0.46	645.00	**296.70**

9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**693.29**
	Add 1 % Water charges on “W”				**6.93**
	TOTAL				**700.22**
	Add GST on “X” (multiplying factor 0.1405)				**98.38**
	TOTAL				**798.60**
	Add 15% CPOH on “Y”				**119.79**
	TOTAL				**918.39**
	Add Cess @ 1% on “Z”				**9.18**
	Cost of 10.00 sqm				**927.57**
	Cost of 1.00 sqm				**92.76**
	Say				**92.75**
	FOR DPA 30% LESS				**64.925**

13.30 Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :

13.30.1 Water thinnable cement primer

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 gms/lit.	litre	0.70	50.00	**35.00**
9999	Brushes, putty etc	L.S.	7.15	2.12	**15.16**
	LABOUR				**0.00**
0131	Painter	day	0.40	714.00	**285.60**
0115	Coolie	day	0.20	645.00	**129.00**
9988	Sundries including carriage	L.S.	8.06	2.12	**17.09**
	TOTAL				**481.85**
	Add 1 % Water charges on "W"				**4.82**
	TOTAL				**486.66**
	Add GST on "X" (multiplying factor 0.1405)				**68.38**
	TOTAL				**555.04**
	Add 15% CPOH on "Y"				**83.26**
	TOTAL				**638.30**
	Add Cess @ 1% on "Z"				**6.38**
	Cost of 10.00 sqm				**644.68**
	Cost of 1.00 sqm				**64.47**
	Say				**64.45**
	FOR DPA 30% LESS				**45.115**

13.31 Finishing walls with water proofing cement paint of required shade :

13.31.1 New work (Two or more coats applied @ 3.84 kg/10 sqm)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0851	Water proofing cement paint	kilogram	3.84	38.00	**145.92**
9977	Carriage of material	L.S.	1.56	2.12	**3.31**
	LABOUR				**0.00**
0131	Painter	day	0.46	714.00	**328.44**
0115	Coolie	day	0.23	645.00	**148.35**
0101	Bhisti	day	0.10	714.00	**71.40**
9999	Brushes, sand paper etc	L.S.	7.15	2.12	**15.16**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**729.66**
	Add 1 % Water charges on "W"				**7.30**
	TOTAL				**736.96**
	Add GST on "X" (multiplying				

	factor 0.1405)				103.54
	TOTAL				840.50
	Add 15% CPOH on "Y"				126.08
	TOTAL				966.58
	Add Cess @ 1% on "Z"				9.67
	Cost of 10.00 sqm				976.24
	Cost of 1.00 sqm				97.62
	Say				97.60
	FOR DPA 30% LESS				**68.32**

13.32 Finishing walls with textured exterior paint of required shade :
13.32.2 New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8507	Textured exterior paint	litre	3.28	280.00	918.40
0837	Acrylic Exterior Primer	kilogram	2.20	100.00	220.00
9977	Carriage of material	L.S.	1.56	2.12	3.31
	LABOUR				0.00
0131	Painter	day	0.60	714.00	428.40
0115	Coolie	day	0.30	645.00	193.50
0101	Bhisti	day	0.05	714.00	35.70
9999	Brushes, sand paper etc	L.S.	7.02	2.12	14.88
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1831.28
	Add 1 % Water charges on “W”				18.31
	TOTAL				1849.59
	Add GST on “X” (multiplying factor 0.1405)				259.87
	TOTAL				2109.46
	Add 15% CPOH on “Y”				316.42
	TOTAL				2425.88
	Add Cess @ 1% on “Z”				24.26
	Cost of 10.00 sqm				2450.13
	Cost of 1.00 sqm				245.01
	Say				245.00
	FOR DPA 30% LESS				**171.5**

13.33 Finishing walls with Acrylic Smooth exterior paint of required shade :
13.33.1 New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8505	Acrylic exterior paint	litre	1.67	200.00	334.00
0837	Acrylic Exterior Primer	Kg	2.20	100.00	220.00
9977	Carriage of material	L.S.	1.56	2.12	3.31
	LABOUR				0.00
0131	Painter	day	0.60	714.00	428.40
0115	Coolie	day	0.30	645.00	193.50
0101	Bhisti	day	0.05	714.00	35.70
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1247.15
	Add 1 % Water charges on "W"				12.47
	TOTAL				1259.62
	Add GST on "X" (multiplying factor 0.1405)				176.98
	TOTAL				1436.60
	Add 15% CPOH on "Y"				215.49
	TOTAL				1652.09

	Add Cess @ 1% on "Z"				**16.52**
	Cost of 10.00 sqm				**1668.61**
	Cost of 1.00 sqm				**166.86**
	Say				**166.85**
	FOR DPA 30% LESS				**116.795**

13.34 Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:

13.34.1 New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8506	Premium Acrylic exterior paint	litre	1.43	210.00	**300.30**
0837	Acrylic Exterior Primer	kilogram	2.20	100.00	**220.00**
9977	Carriage of material	L.S.	1.56	2.12	**3.31**
	LABOUR				**0.00**
0131	Painter	day	0.60	714.00	**428.40**
0115	Coolie	day	0.30	645.00	**193.50**
0101	Bhisti	day	0.05	714.00	**35.70**
9999	Brushes, sand paper etc	L.S.	7.15	2.12	**15.16**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**1213.45**
	Add 1 % Water charges on "W"				**12.13**
	TOTAL				**1225.59**
	Add GST on "X" (multiplying factor 0.1405)				**172.19**
	TOTAL				**1397.78**
	Add 15% CPOH on "Y"				**209.67**
	TOTAL				**1607.45**
	Add Cess @ 1% on "Z"				**16.07**
	Cost of 10.00 sqm				**1623.52**
	Cost of 1.00 sqm				**162.35**
	Say				**162.35**
	FOR DPA 30% LESS				**113.645**

13.35 Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :

13.35.1 Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8504	Multi surface paint	litre	1.25	300.00	**375.00**
8509	Special Primer (C.W.)	litre	0.75	160.00	**120.00**
9977	Carriage of material	L.S.	1.56	2.12	**3.31**
	LABOUR				**0.00**
0131	Painter	day	0.60	714.00	**428.40**
0115	Coolie	day	0.30	645.00	**193.50**
0101	Bhisti	day	0.05	714.00	**35.70**
9999	Brushes, sand paper etc	L.S.	7.02	2.12	**14.88**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**1187.88**
	Add 1 % Water charges on "W"				**11.88**
	TOTAL				**1199.76**
	Add GST on "X" (multiplying factor 0.1405)				**168.57**
	TOTAL				**1368.32**
	Add 15% CPOH on "Y"				**205.25**
	TOTAL				**1573.57**
	Add Cess @ 1% on "Z"				**15.74**
	Cost of 10.00 sqm				**1589.31**
	Cost of 1.00 sqm				**158.93**
	Say				**158.95**

	FOR DPA 30% LESS				111.27

13.35.2 Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @0.75 ltr/10 sqm of approved brand and manufacture

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8504	Multi surface paint	litre	0.90	300.00	270.00
8509	Special Primer (C.W.)	litre	0.75	160.00	120.00
9977	Carriage of material	L.S.	1.56	2.12	3.31
	LABOUR				0.00
0131	Painter	day	0.60	714.00	428.40
0115	Coolie	day	0.30	645.00	193.50
0101	Bhisti	day	0.05	714.00	35.70
9999	Brushes, sand paper etc	L.S.	7.02	2.12	14.88
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1082.88
	Add 1 % Water charges on "W"				10.83
	TOTAL				1093.71
	Add GST on "X" (multiplying factor 0.1405)				153.67
	TOTAL				1247.37
	Add 15% CPOH on "Y"				187.11
	TOTAL				1434.48
	Add Cess @ 1% on "Z"				14.34
	Cost of 10.00 sqm				1448.82
	Cost of 1.00 sqm				144.88
	Say				144.90
	FOR DPA 30% LESS				101.43

13.35.3 Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/10 sqm of approved brand and manufacture

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8504	Multi surface paint	litre	0.90	300.00	270.00
8510	Metal Primer (U.G.)	litre	0.80	105.00	84.00
9977	Carriage of material	L.S.	1.56	2.12	3.31
	LABOUR				0.00
0131	Painter	day	0.60	714.00	428.40
0115	Coolie	day	0.30	645.00	193.50
0101	Bhisti	day	0.05	714.00	35.70
9999	Brushes, sand paper etc	L.S.	7.02	2.12	14.88
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1046.88
	Add 1 % Water charges on "W"				10.47
	TOTAL				1057.35
	Add GST on "X" (multiplying factor 0.1405)				148.56
	TOTAL				1205.90
	Add 15% CPOH on "Y"				180.89
	TOTAL				1386.79
	Add Cess @ 1% on "Z"				13.87
	Cost of 10.00 sqm				1400.66
	Cost of 1.00 sqm				140.07
	Say				140.05
	FOR DPA 30% LESS				98.035

13.36 Applying priming coat:
13.36.1 With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm MATERIAL				
0806	Ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre	litre	0.75	105.00	78.75
9999	Putty	L.S.	2.73	2.12	5.79
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.25	714.00	178.50
0115	Coolie	day	0.25	645.00	161.25
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	10.79	2.12	22.87
	TOTAL				459.29 W
	Add 1 % Water charges on "W"				4.59
	TOTAL				463.88 X
	Add GST on "X" (multiplying factor 0.1405)				65.18
	TOTAL				529.06 Y
	Add 15% CPOH on "Y"				79.36
	TOTAL				608.42 Z
	Add Cess @ 1% on "Z"				6.08
	Cost of 10.00 sqm				614.50
	Cost of 1.00 sqm				61.45
	Say				61.45
	FOR DPA 30% LESS				**43.02**

13.36.2 With ready mixed aluminium primer of approved brand and manufacture on resinous wood and plywood

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
4201	Aluminium primer	litre	0.75	120.00	90.00
9999	Putty	L.S.	2.73	2.12	5.79
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				0.00
0131	Painter	day	0.25	714.00	178.50
0115	Coolie	day	0.25	645.00	161.25
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	10.79	2.12	22.87
	TOTAL				470.54
	Add 1 % Water charges on "W"				4.71
	TOTAL				475.24
	Add GST on "X" (multiplying factor 0.1405)				66.77
	TOTAL				542.02
	Add 15% CPOH on "Y"				81.30
	TOTAL				623.32
	Add Cess @ 1% on "Z"				6.23
	Cost of 10.00 sqm				629.55
	Cost of 1.00 sqm				62.96
	Say				62.95
	FOR DPA 30% LESS				**44.07**

13.36.3 With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.54	120.00	64.80
9977	Carriage	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.24	714.00	171.36

0115	Coolie	day	0.24	645.00	**154.80**
9999	Brushes,sand paper including sundries	L.S.	10.79	2.12	**22.87**
	TOTAL				**414.94 W**
	Add 1 % Water charges on "W"				**4.15**
	TOTAL				**419.09 X**
	Add GST on "X" (multiplying factor 0.1405)				**58.88**
	TOTAL				**477.97 Y**
	Add 15% CPOH on "Y"				**71.70**
	TOTAL				**549.66 Z**
	Add Cess @ 1% on "Z"				**5.50**
	Cost of 10.00 sqm				**555.16**
	Cost of 1.00 sqm				**55.52**
	Say				**55.50**
	FOR DPA 30% LESS				**38.85**

13.36.4 With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.36	120.00	**43.20**
9977	Carriage	L.S.	0.39	2.12	**0.83**
	LABOUR				**0.00**
0131	Painter	day	0.12	714.00	**85.68**
0115	Coolie	day	0.12	645.00	**77.40**
9999	Brushes,sand paper including	L.S.	7.15	2.12	**15.16**
	TOTAL				**222.26**
	Add 1 % Water charges on "W"				**2.22**
	TOTAL				**224.49**
	Add GST on "X" (multiplying factor 0.1405)				**31.54**
	TOTAL				**256.03**
	Add 15% CPOH on "Y"				**38.40**
	TOTAL				**294.43**
	Add Cess @ 1% on "Z"				**2.94**
	Cost of 10.00 sqm				**297.38**
	Cost of 1.00 sqm				**29.74**
	Say				**29.75**
	FOR DPA 30% LESS				**20.825**

13.37 Painting with silicon & acrylic emulsion based water thinnable sealer of approved brand and manufacture on wet or patchy portion of plastered surfaces :

13.37.1 One coat

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0801	Silicon and acrylic emulsion	litre	1.80	120.00	**216.00**
9977	Carriage of material	L.S.	0.52	2.12	**1.10**
9999	Putty etc	L.S.	2.73	2.12	**5.79**
	LABOUR				**0.00**
0131	Painter	day	0.27	714.00	**192.78**
0115	Coolie	day	0.27	645.00	**174.15**
9999	Brushes, sand paper etc	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	10.79	2.12	**22.87**
	TOTAL				**623.99**
	Add 1 % Water charges on "W"				**6.24**
	TOTAL				**630.23**
	Add GST on "X" (multiplying factor 0.1405)				**88.55**
	TOTAL				**718.78**
	Add 15% CPOH on "Y"				**107.82**
	TOTAL				**826.60**

	Add Cess @ 1% on "Z"				**8.27**
	Cost of 10.00 sqm				**834.87**
	Cost of 1.00 sqm				**83.49**
	Say				**83.50**
	FOR DPA 30% LESS				**58.45**

13.37.2 Two coats

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0801	Silicon and acrylic emulsion	litre	2.88	120.00	**345.60**
9977	Carriage of material	L.S.	0.52	2.12	**1.10**
9999	Putty etc	L.S.	2.73	2.12	**5.79**
	LABOUR				**0.00**
0131	Painter	day	0.43	714.00	**307.02**
0115	Coolie	day	0.43	645.00	**277.35**
9999	Brushes, sand paper etc	L.S.	8.53	2.12	**18.08**
9999	Sundries	L.S.	17.26	2.12	**36.59**
	TOTAL				**991.53**
	Add 1 % Water charges on "W"				**9.92**
	TOTAL				**1001.45**
	Add GST on "X" (multiplying factor 0.1405)				**140.70**
	TOTAL				**1142.15**
	Add 15% CPOH on "Y"				**171.32**
	TOTAL				**1313.48**
	Add Cess @ 1% on "Z"				**13.13**
	Cost of 10.00 sqm				**1326.61**
	Cost of 1.00 sqm				**132.66**
	Say				**132.65**
	FOR DPA 30% LESS				**92.855**

13.38 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.38.1 On steel work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm PRIMING COAT				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.75	120.00	**90.00**
9999	Putty	L.S.	2.73	2.12	**5.79**
9977	Carriage	L.S.	0.39	2.12	**0.83**
	LABOUR				**0.00**
0131	Painter	day	0.25	714.00	**178.50**
0115	Coolie	day	0.25	645.00	**161.25**
9999	Brushes, sand paper etc	L.S.	5.46	2.12	**11.58**
9999	Sundries	L.S.	10.66	2.12	**22.60**
	EPOXY PAINTING				**0.00**
	MATERIAL				**0.00**
7239	Epoxy paint	litre	1.25	215.00	**268.75**
9977	Carriage of material	L.S.	1.43	2.12	**3.03**
	LABOUR				**0.00**
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
9999	Putty, brushes, sand paper etc	L.S.	6.76	2.12	**14.33**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**1507.60**
	Add 1 % Water charges on "W"				**15.08**
	TOTAL				**1522.67**
	Add GST on "X" (multiplying factor 0.1405)				**213.94**
	TOTAL				**1736.61**
	Add 15% CPOH on "Y"				**260.49**
	TOTAL				**1997.10**

	Add Cess @ 1% on "Z"				**19.97**
	Cost of 10.00 sqm				**2017.07**
	Cost of 1.00 sqm				**201.71**
	Say				**201.70**
	FOR DPA 30% LESS				**141.19**

13.38.2 On concrete work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	PRIMING COAT				
	MATERIAL				
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 grams/ litre	litre	0.84	50.00	**42.00**
9999	Putty	L.S.	13.52	2.12	**28.66**
9977	Carriage	L.S.	0.52	2.12	**1.10**
	LABOUR				**0.00**
0131	Painter	day	0.25	714.00	**178.50**
0115	Coolie	day	0.25	645.00	**161.25**
9999	Brushes, sand paper etc	L.S.	2.73	2.12	**5.79**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	EPOXY PAINTING				**0.00**
	MATERIAL				**0.00**
7239	Epoxy paint	litre	1.21	215.00	**260.15**
9999	Materials for filling in holes				**0.00**
	and cracks	L.S.	6.76	2.12	**14.33**
9977	Carriage of material	L.S.	1.43	2.12	**3.03**
	LABOUR				**0.00**
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
9999	Putty, brushes, sand paper etc	L.S.	10.79	2.12	**22.87**
9999	Sundries	L.S.	6.76	2.12	**14.33**
	TOTAL				**1482.97**
	Add 1 % Water charges on "W"				**14.83**
	TOTAL				**1497.80**
	Add GST on "X" (multiplying factor 0.1405)				**210.44**
	TOTAL				**1708.24**
	Add 15% CPOH on "Y"				**256.24**
	TOTAL				**1964.47**
	Add Cess @ 1% on "Z"				**19.64**
	Cost of 10.00 sqm				**1984.12**
	Cost of 1.00 sqm				**198.41**
	Say				**198.40**
	FOR DPA 30% LESS				**138.88**

13.39 Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :

13.39.1 New work (two or more coats) including a coat of approved steel primer but excluding a coat of mordant solution

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	PRIMING COAT				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.36	120.00	**43.20**
9977	Carriage	L.S.	0.39	2.12	**0.83**
	LABOUR				**0.00**
0131	Painter	day	0.12	714.00	**85.68**
0114	Beldar	day	0.12	645.00	**77.40**
9999	Brushes, sand paper etc	L.S.	7.15	2.12	**15.16**
	Synthetic enamel painting				**0.00**
	MATERIAL				**0.00**
0834	Synthetic enamel paint in all shades				**0.00**

	except black or chocolate shade	litre	0.80	165.00	**132.00**
9977	Carriage	L.S.	1.43	2.12	**3.03**
	LABOUR				**0.00**
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
9999	Putty, brushes, sand paper etc	L.S.	6.76	2.12	**14.33**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**1122.57**
	Add 1 % Water charges on "W"				**11.23**
	TOTAL				**1133.80**
	Add GST on "X" (multiplying factor 0.1405)				**159.30**
	TOTAL				**1293.10**
	Add 15% CPOH on "Y"				**193.96**
	TOTAL				**1487.06**
	Add Cess @ 1% on "Z"				**14.87**
	Cost of 10.00 sqm				**1501.94**
	Cost of 1.00 sqm				**150.19**
	Say				**150.20**
	FOR DPA 30% LESS				**105.14**

13.40 Applying a coat of mordant solution on G.S. sheet:

13.40.1 With a solution of 38 gms of copper acetate in a litre of soft water

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 25 sqm				
	MATERIAL				
4203	Copper acetate	kilogram	0.038	300.00	**11.40**
9999	Soft Water	L.S.	1.82	2.12	**3.86**
9977	Carriage	L.S.	0.91	2.12	**1.93**
	LABOUR				**0.00**
0131	Painter	day	0.60	714.00	**428.40**
0115	Coolie	day	0.60	645.00	**387.00**
9999	Brushes, sand paper etc	L.S.	35.88	2.12	**76.07**
9999	Sundries	L.S.	35.88	2.12	**76.07**
	TOTAL				**984.72**
	Add 1 % Water charges on "W"				**9.85**
	TOTAL				**994.57**
	Add GST on "X" (multiplying factor 0.1405)				**139.74**
	TOTAL				**1134.30**
	Add 15% CPOH on "Y"				**170.15**
	TOTAL				**1304.45**
	Add Cess @ 1% on "Z"				**13.04**
	Cost of 25 sqm				**1317.49**
	Cost of 1.00 sqm				**52.70**
	Say				**52.70**
	FOR DPA 30% LESS				**36.89**

13.40.2 With a solution made of 13 gms of hydrochloric acid in a solution of 13 gms each of copper chloride, copper nitrate and ammonium chloride dissolved in a litre of soft water

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 25 sqm				
	MATERIAL				
4204	Hydrochloric acid	kilogram	0.013	35.00	**0.46**
4205	Copper chloride	kilogram	0.013	300.00	**3.90**
4206	Copper nitrate	kilogram	0.013	210.00	**2.73**
4207	Ammonium chloride	kilogram	0.013	22.00	**0.29**
9999	Soft Water	L.S.	1.82	2.12	**3.86**
9977	Carriage	L.S.	0.91	2.12	**1.93**
	LABOUR				**0.00**
0131	Painter	day	0.60	714.00	**428.40**

0115	Coolie	day	0.60	645.00	**387.00**
9999	Brushes, sand paper etc	L.S.	35.88	2.12	**76.07**
9999	Sundries	L.S.	35.88	2.12	**76.07**
	TOTAL				**980.69**
	Add 1 % Water charges on "W"				**9.81**
	TOTAL				**990.50**
	Add GST on "X" (multiplying factor 0.1405)				**139.16**
	TOTAL				**1129.66**
	Add 15% CPOH on "Y"				**169.45**
	TOTAL				**1299.11**
	Add Cess @ 1% on "Z"				**12.99**
	Cost of 25 sqm				**1312.10**
	Cost of 1.00 sqm				**52.48**
	Say				**52.50**
	FOR DPA 30% LESS				**36.75**

13.41 Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture, over and including a priming of ready mixed zinc chromate yellow primer on new work:

13.41.1 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 mtrs				
	Area=22/7 x106.4mm x30m =10.032sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.54	120.00	**64.80**
9977	Carriage	L.S.	0.52	2.12	**1.10**
	LABOUR				**0.00**
0131	Painter	day	0.24	714.00	**171.36**
0115	Coolie	day	0.24	645.00	**154.80**
9999	Brushes, sand paper etc	L.S.	10.79	2.12	**22.87**
	MATERIAL				**0.00**
0828	Anticorrosive bituminous paint (black)	litre	0.95	100.00	**95.00**
9977	Carriage	L.S.	1.43	2.12	**3.03**
	LABOUR				**0.00**
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
9999	Putty, sand paper etc	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	8.06	2.12	**17.09**
9999	Wire brushes for cleaning	L.S.	5.33	2.12	**11.30**
9999	Extra for delays	L.S.	61.10	2.12	**129.53**
	TOTAL				**1416.05**
	Add 1 % Water charges on "W"				**14.16**
	TOTAL				**1430.21**
	Add GST on "X" (multiplying factor 0.1405)				**200.94**
	TOTAL				**1631.15**
	Add 15% CPOH on "Y"				**244.67**
	TOTAL				**1875.82**
	Add Cess @ 1% on "Z"				**18.76**
	Cost of 30.00 mtrs				**1894.58**
	Cost of 1.00 metre				**63.15**
	Say				**63.15**
	FOR DPA 30% LESS				**44.205**

13.41.2 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 mtrs				
	Area=22/7 x0.1572 m x30m =14.82sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.80	120.00	**96.00**
	LABOUR				**0.00**

0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Brushes, sand paper etc	L.S.	15.99	2.12	**33.90**
9977	Carriage	L.S.	0.91	2.12	**1.93**
	MATERIAL				**0.00**
0828	Anticorrosive bituminous paint (black)	litre	1.41	100.00	**141.00**
9977	Carriage	L.S.	2.08	2.12	**4.41**
	LABOUR				**0.00**
0131	Painter	day	0.80	714.00	**571.20**
0115	Coolie	day	0.80	645.00	**516.00**
9999	Putty, sand paper etc	L.S.	8.06	2.12	**17.09**
9999	Sundries	L.S.	11.96	2.12	**25.36**
9999	Wire brushes for cleaning	L.S.	7.15	2.12	**15.16**
9999	Extra for delays	L.S.	94.12	2.12	**199.53**
	TOTAL				**2110.81**
	Add 1 % Water charges on "W"				**21.11**
	TOTAL				**2131.92**
	Add GST on "X" (multiplying factor 0.1405)				**299.53**
	TOTAL				**2431.46**
	Add 15% CPOH on "Y"				**364.72**
	TOTAL				**2796.17**
	Add Cess @ 1% on "Z"				**27.96**
	Cost of 30.00 mtrs				**2824.14**
	Cost of 1.00 metre				**94.14**
	Say				**94.15**
	FOR DPA 30% LESS				**65.905**

13.42 Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour over a priming coat of approved steel primer on new work.

13.42.1 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 mtrs				
	Area=22/7x0.1064m x30m =10.032sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.54	120.00	**64.80**
9977	Carriage	L.S.	0.52	2.12	**1.10**
	LABOUR				**0.00**
0131	Painter	day	0.24	714.00	**171.36**
0115	Coolie	day	0.24	645.00	**154.80**
9999	Sundries	L.S.	10.79	2.12	**22.87**
	MATERIAL				**0.00**
0833	Synthetic enamel paint in black or				**0.00**
	chocolate shade	litre	1.16	175.00	**203.00**
9977	Carriage	L.S.	1.43	2.12	**3.03**
9999	Putty, sand paper etc	L.S.	5.33	2.12	**11.30**
	LABOUR				**0.00**
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
9999	Sundries	L.S.	6.76	2.12	**14.33**
9999	Wire brushes for cleaning	L.S.	11.96	2.12	**25.36**
9999	Extra for delays	L.S.	66.43	2.12	**140.83**
	TOTAL				**1546.65**
	Add 1 % Water charges on "W"				**15.47**
	TOTAL				**1562.11**
	Add GST on "X" (multiplying factor 0.1405)				**219.48**
	TOTAL				**1781.59**
	Add 15% CPOH on "Y"				**267.24**
	TOTAL				**2048.83**
	Add Cess @ 1% on "Z"				**20.49**

	Cost of 30.00 mtrs				**2069.32**
	Cost of 1.00 metre				**68.98**
	Say				**69.00**
	FOR DPA 30% LESS				**48.3**

13.43 Painting with oil type wood preservative of approved brand and manufacture :
13.43.1 New work (two or more coats)

Code	Description	Unit	Quantity	Rate	Amount
0859 9977 0131 0115 9999	Detail of cost for 10 sqm MATERIAL Oil type wood preservative Carriage of material LABOUR Painter Coolie Brushes etc	litre L.S. day day L.S.	1.00 0.52 0.15 0.15 4.16	130.00 2.12 714.00 645.00 2.12	**130.00** **1.10** **107.10** **96.75** **8.82**
9999	Sundries	L.S.	3.90	2.12	**8.27**
	TOTAL				**352.04 W**
	Add 1 % Water charges on "W"				**3.52**
	TOTAL				**355.56 X**
	Add GST on "X" (multiplying factor 0.1405)				**49.96**
	TOTAL				**405.52 Y**
	Add 15% CPOH on "Y"				**60.83**
	TOTAL				**466.34 Z**
	Add Cess @ 1% on "Z"				**4.66**
	Cost of 10.00 sqm				**471.01**
	Cost of 1.00 sqm				**47.10**
	Say				**47.10**
	FOR DPA 30% LESS				**32.97**

13.44 Providing and applying two coats of fire retardant paint on cleaned wood / ply surface @ 3.5 sqm per litre per coat including preparation of base surface as per recommendations of manufacturer to make the surface fire retardant.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
7240	Fire retardant paint	litre	5.70	240.00	**1368.00**
9977	Carriage of material	L.S.	1.43	2.12	**3.03**
	LABOUR				**0.00**
0131	Painter	day	0.54	714.00	**385.56**
0114	Beldar	day	0.54	645.00	**348.30**
9999	Putty, brushes, sand paper etc	L.S.	6.76	2.12	**14.33**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**2136.31**
	Add 1 % Water charges on “W”				**21.36**
	TOTAL				**2157.67**
	Add GST on “X” (multiplying factor 0.1405)				**303.15**
	TOTAL				**2460.83**
	Add 15% CPOH on “Y”				**369.12**
	TOTAL				**2829.95**
	Add Cess @ 1% on “Z”				**28.30**
	Cost of 10.00 sqm				**2858.25**
	Cost of 1.00 sqm				**285.82**
	Say				**285.80**
	FOR DPA 30% LESS				**200.06**

13.45 Coal tarring two coats on new work using 0.16 Litre and 0.12 litre coal tar per sqm in the first coat and second coat respectively.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
9999	Lime	L.S.	1.43	2.12	**3.03**
0324	Coal Tar	litre	2.80	30.00	**84.00**

9977	Carriage of material	L.S.	1.43	2.12	**3.03**
0771	Kerosene oil	litre	0.50	50.00	**25.00**
	LABOUR				**0.00**
0114	Beldar	day	0.43	645.00	**277.35**
9999	Brushes etc	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	5.33	2.12	**11.30**
	TOTAL				**415.01**
	Add 1 % Water charges on "W"				**4.15**
	TOTAL				**419.16**
	Add GST on "X" (multiplying factor 0.1405)				**58.89**
	TOTAL				**478.05**
	Add 15% CPOH on "Y"				**71.71**
	TOTAL				**549.76**
	Add Cess @ 1% on "Z"				**5.50**
	Cost of 10.00 sqm				**555.26**
	Cost of 1.00 sqm				**55.53**
	Say				**55.55**
	FOR DPA 30% LESS				**38.885**

13.46 Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :
13.46.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0804	Premium plastic acrylic emulsion of interior grade, having VOC content less than 50 grams/ litre	litre	1.21	200.00	**242.00**
9999	For filling holes and cracks with putty etc	L.S.	6.76	2.12	**14.33**
9977	Carriage of material	L.S.	1.43	2.12	**3.03**
	LABOUR				**0.00**
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
9999	Brushes, sand paper etc	L.S.	10.79	2.12	**22.87**
9999	Sundries	L.S.	6.76	2.12	**14.33**
	TOTAL				**1030.43**
	Add 1 % Water charges on "W"				**10.30**
	TOTAL				**1040.73**
	Add GST on "X" (multiplying factor 0.1405)				**146.22**
	TOTAL				**1186.96**
	Add 15% CPOH on "Y"				**178.04**
	TOTAL				**1365.00**
	Add Cess @ 1% on "Z"				**13.65**
	Cost of 10.00 sqm				**1378.65**
	Cost of 1.00 sqm				**137.86**
	Say				**137.85**
	FOR DPA 30% LESS				**96.50**

13.47 Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :
13.47.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	1.16	175.00	**203.00**
9999	For filling holes and cracks with putty etc	L.S.	5.33	2.12	**11.30**
9977	Carriage	L.S.	1.43	2.12	**3.03**
	LABOUR				**0.00**

Code	Description	Unit	Quantity	Rate	Amount
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
9999	Brushes, sand paper etc	L.S.	6.76	2.12	**14.33**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**982.61**
	Add 1 % Water charges on "W"				**9.83**
	TOTAL				**992.44**
	Add GST on "X" (multiplying factor 0.1405)				**139.44**
	TOTAL				**1131.87**
	Add 15% CPOH on "Y"				**169.78**
	TOTAL				**1301.65**
	Add Cess @ 1% on "Z"				**13.02**
	Cost of 10.00 sqm				**1314.67**
	Cost of 1.00 sqm				**131.47**
	Say				**131.45**
	FOR DPA 30% LESS				**92.02**

13.48 Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :
13.48.1 Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0806	Ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre	litre	0.75	105.00	**78.75**
9999	Putty	L.S.	2.73	2.12	**5.79**
9977	Carriage	L.S.	0.39	2.12	**0.83**
	LABOUR				
0131	Painter	day	0.25	714.00	**178.50**
0115	Coolie	day	0.25	645.00	**161.25**
9999	Brushes, sand paper etc	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	10.79	2.12	**22.87**
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	1.16	175.00	**203.00**
9977	Carriage of paint and material	L.S.	1.43	2.12	**3.03**
	LABOUR				
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
	FOR DPA 30% LESS				**243.81**

13.49 Painting with aluminium paint of approved brand and manufacture to give an even shade .
13.49.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.80	150.00	**120.00**
9977	Carriage of paint and material	L.S.	1.43	2.12	**3.03**
9999	Putty etc	L.S.	5.33	2.12	**11.30**
	LABOUR				**0.00**
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
9999	Brushes, sand paper etc	L.S.	6.76	2.12	**14.33**
9999	Sundries	L.S.	11.96	2.12	**25.36**
	TOTAL				**907.88**
	Add 1 % Water charges on "W"				**9.08**
	TOTAL				**916.96**

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X" (multiplying factor 0.1405)				**128.83**
	TOTAL				**1045.79**
	Add 15% CPOH on "Y"				**156.87**
	TOTAL				**1202.66**
	Add Cess @ 1% on "Z"				**12.03**
	Cost of 10.00 sqm				**1214.68**
	Cost of 1.00 sqm				**121.47**
	Say				**121.45**
	FOR DPA 30% LESS				**85.02**

13.50 Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade :

13.50.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate	Amount
0827	Detail of cost for 10 sqm MATERIAL Acid proof paint (chocolate or black)	litre	1.16	225.00	**261.00**
9977	Carriage of paint	L.S.	1.43	2.12	**3.03**
9999	Putty etc	L.S.	5.33	2.12	**11.30**
	LABOUR				**0.00**
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
9999	Brushes, sand paper etc	L.S.	6.76	2.12	**14.33**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**1040.61**
	Add 1 % Water charges on "W"				**10.41**
	TOTAL				**1051.02**
	Add GST on "X" (multiplying factor 0.1405)				**147.67**
	TOTAL				**1198.68**
	Add 15% CPOH on "Y"				**179.80**
	TOTAL				**1378.49**
	Add Cess @ 1% on "Z"				**13.78**
	Cost of 10.00 sqm				**1392.27**
	Cost of 1.00 sqm				**139.23**
	Say				**139.25**
	FOR DPA 30% LESS				**97.48**

13.51 Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade :

13.51.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.95	100.00	**95.00**
9977	Carriage	L.S.	1.43	2.12	**3.03**
	LABOUR				**0.00**
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
9999	Putty, brushes, sand paper etc	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**860.28**
	Add 1 % Water charges on "W"				**8.60**
	TOTAL				**868.88**
	Add GST on "X" (multiplying factor 0.1405)				**122.08**
	TOTAL				**990.96**
	Add 15% CPOH on "Y"				**148.64**
	TOTAL				**1139.60**
	Add Cess @ 1% on "Z"				**11.40**
	Cost of 10.00 sqm				**1151.00**
	Cost of 1.00 sqm				**115.10**

Code	Description	Unit	Quantity	Rate	Amount
	Say				115.10
	FOR DPA 30% LESS				**80.57**

13.53 Varnishing with varnish of approved brand and manufacture :

13.53.1 Two or more coats of glue sizing with copal varnish over an under coat of flatting varnish

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0856	Ordinary varnish	litre	0.70	100.00	70.00
0763	Glue	kilogram	0.07	75.00	5.25
0857	Superior copal varnish	litre	1.16	115.00	133.40
9977	Carriage	L.S.	1.43	2.12	3.03
9999	Putty for repair to holes etc	L.S.	5.33	2.12	11.30
	LABOUR				0.00
0131	Painter	day	0.90	714.00	642.60
	(0.36+0.54=0.90)				0.00
0115	Coolie	day	0.90	645.00	580.50
	(0.36+0.54=0.90)				0.00
9999	Brushes, sand paper etc	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				1475.57
	Add 1 % Water charges on "W"				14.76
	TOTAL				1490.33
	Add GST on "X" (multiplying factor 0.1405)				209.39
	TOTAL				1699.72
	Add 15% CPOH on "Y"				254.96
	TOTAL				1954.67
	Add Cess @ 1% on "Z"				19.55
	Cost of 10.00 sqm				1974.22
	Cost of 1.00 sqm				197.42
	Say				197.40
	FOR DPA 30% LESS				**138.18**

13.53.2 Two or more coats glue sizing with spar varnish or an under coat of flatting varnish

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0856	Ordinary varnish	litre	0.70	100.00	70.00
0763	Glue	kilogram	0.07	75.00	5.25
0858	Superior spar varnish	litre	1.26	115.00	144.90
9977	Carriage	L.S.	1.43	2.12	3.03
9999	Repair etc	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.90	714.00	642.60
	(0.36+0.54=0.90)				
0115	Coolie	day	0.90	645.00	580.50
	(0.36+0.54=0.90)				
9999	Brushes, sand paper etc	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				1481.56 W
	Add 1 % Water charges on "W"				14.82
	TOTAL				1496.37 X
	Add GST on "X" (multiplying factor 0.1405)				210.24
	TOTAL				1706.61 Y
	Add 15% CPOH on "Y"				255.99
	TOTAL				1962.61 Z
	Add Cess @ 1% on "Z"				19.63
	Cost of 10.00 sqm				1982.23
	Cost of 1.00 sqm				198.22
	Say				198.20

	FOR DPA 30% LESS				138.74

13.54 French spirit polishing :
13.54.1 Two or more coats on new works including a coat of wood filler

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
1000	Spirit	litre	1.63	48.00	78.24
9999	Pigment	L.S.	7.15	2.12	15.16
0999	Shellac	kilogram	0.24	300.00	72.00
9977	Carriage of material	L.S.	2.73	2.12	5.79
9999	White woolen cloth, putty	L.S.	16.12	2.12	34.17
9999	Sand paper cotton etc	L.S.	13.39	2.12	28.39
9999	Lineseed oil	L.S.	1.43	2.12	3.03
	LABOUR				0.00
0131	Painter	day	3.50	714.00	2499.00
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				2752.87
	Add 1 % Water charges on "W"				27.53
	TOTAL				2780.39
	Add GST on "X" (multiplying factor 0.1405)				390.65
	TOTAL				3171.04
	Add 15% CPOH on "Y"				475.66
	TOTAL				3646.70
	Add Cess @ 1% on "Z"				36.47
	Cost of 10.00 sqm				3683.16
	Cost of 1.00 sqm				368.32
	Say				368.30
	FOR DPA 30% LESS				257.81

13.55 Polishing on wood work with ready mixed wax polish of approved brand and manufacture :
13.55.1 New work

Code	Description	Unit	Quantity	Rate	Amount
0855	Detail of cost for 10 sqm MATERIAL Wax polish (ready made)	kilogram	0.50	230.00	115.00
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.80	714.00	571.20
0115	Coolie	day	0.80	645.00	516.00
9999	Soap, brushes, cloth etc	L.S.	4.16	2.12	8.82
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				1227.00 W
	Add 1 % Water charges on "W"				12.27
	TOTAL				1239.27 X
	Add GST on "X" (multiplying factor 0.1405)				174.12
	TOTAL				1413.39 Y
	Add 15% CPOH on "Y"				212.01
	TOTAL				1625.40 Z
	Add Cess @ 1% on "Z"				16.25
	Cost of 10.00 sqm				1641.65
	Cost of 1.00 sqm				164.17
	Say				164.15
	FOR DPA 30% LESS				114.91

13.56 Floor polishing on masonry or concrete floors with wax polish of approved brand and manufacture.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0855	Wax polish (ready made)	kilogram	0.10	230.00	23.00
	LABOUR				0.00

Code	Description	Unit	Quantity	Rate	Amount
0131	Painter	day	0.40	714.00	**285.60**
0115	Coolie	day	0.40	645.00	**258.00**
9999	Acetic acid soap, cloth etc	L.S.	5.33	2.12	**11.30**
9988	Sundries including Carriage	L.S.	8.06	2.12	**17.09**
	TOTAL				**594.99**
	Add 1 % Water charges on "W"				**5.95**
	TOTAL				**600.94**
	Add GST on "X" (multiplying factor 0.1405)				**84.43**
	TOTAL				**685.37**
	Add 15% CPOH on "Y"				**102.81**
	TOTAL				**788.17**
	Add Cess @ 1% on "Z"				**7.88**
	Cost of 10.00 sqm				**796.06**
	Cost of 1.00 sqm				**79.61**
	Say				**79.60**
	FOR DPA 30% LESS				55.72

13.57 Lettering with black Japan paint of approved brand and manufacture

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 100 letters of 15 cm height				
	MATERIAL				**50.40**
0829	Black Japan paint	litre	0.56	90.00	
9977	Carriage	L.S.	0.91	2.12	**1.93**
	LABOUR				**0.00**
0131	Painter	day	6.00	714.00	**4284.00**
0115	Coolie	day	2.00	645.00	**1290.00**
9999	Painting brushes, turpentine, stencil etc	L.S.	13.39	2.12	**28.39**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**5671.80**
	Add 1 % Water charges on "W"				**56.72**
	TOTAL				**5728.52**
	Add GST on "X" (multiplying factor 0.1405)				**804.86**
	TOTAL				**6533.38**
	Add 15% CPOH on "Y"				**980.01**
	TOTAL				**7513.39**
	Add Cess @ 1% on "Z"				**75.13**
	Cost of 100 letters of 15 cm height				**7588.52**
	Cost of 1 letters of 1 cm height				**5.06**
	Say				**5.05**
	FOR DPA 30% LESS				3.54

13.58 Washed stone grit plaster on exterior walls height upto 10 metre above ground level, in two layers, under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand), furrowing the under layer with scratching tool, applying cement slurry on the under layer @ 2 Kg of cement per square metre, top layer 15 mm cement plaster 1:1/ 2:2 (1 cement: 1/2 coarse sand : 2 stone chipping 10 mm nominal size), in panels with groove all around as per approved pattern, including scrubbing and washing the top layer with brushes and water to expose the stone chippings ,complete as per specification and direction of Engineer-in- charge (payment for providing grooves shall be made separately).

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Under layer 12 mm cement plaster with Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.144	4355.20	**627.15**
	LABOUR				**0.00**
0155	Mason (average)	day	0.67	749.00	**501.83**
0114	Beldar	day	0.75	645.00	**483.75**
0101	Bhisti	day	0.92	714.00	**656.88**

9999	Scaffolding	L.S.	8.97	2.12	**19.02**
	Applying cement slurry				**0.00**
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	**100.00**
2209	Carriage of Cement	tonne	0.02	145.72	**2.91**
0114	Beldar	day	0.25	645.00	**161.25**
	Top layer 15 mm thick stone chipping plaster Quantity required = 0.172 cum including wastage				
	Preparation of cement concrete mix 1:1/2:2 (1 cement : 1/2 coarse sand : 2 stone chipping 10 mm nominal size)				
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.14	1200.00	**168.00**
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.14	163.93	**22.95**
0982	Coarse sand (zone III)	cum	0.04	1500.00	**60.00**
2203	Carriage of Coarse sand	cum	0.04	163.93	**6.56**
0367	Portland Cement (OPC-43 grade)	tonne	0.10	5000.00	**500.00**
2209	Carriage of Cement	tonne	0.10	145.72	**14.57**
0114	Beldar	day	0.10	645.00	**64.50**
0101	Bhisti	day	0.05	714.00	**35.70**
9999	Hire and running charges of mechanical mixer	L.S.	4.29	2.12	**9.09**
9999	Sundries	L.S.	2.08	2.12	**4.41**
	LABOUR				
0123	Mason (brick layer) 1st class	Day	1.75	784.00	**1372.00**
0114	Beldar	Day	1.75	645.00	**1128.75**
0101	Bhisti	Day	0.30	714.00	**214.20**
9999	Scaffolding	L.S.	24.44	2.12	**51.81**
	Labour for washing				
0123	Mason (brick layer) 1st class	Day	1.00	784.00	**784.00**
0115	Coolie	Day	0.50	645.00	**322.50**
9999	Sundries soft brushes etc	L.S.	25.22	2.12	**53.47**
	TOTAL				**7365.30 W**
	Add 1 % Water charges on "W"				**73.65**
	TOTAL				**7438.96 X**
	Add GST on "X" (multiplying factor 0.1405)				**1045.17**
	TOTAL				**8484.13 Y**
	Add 15% CPOH on "Y"				**1272.62**
	TOTAL				**9756.75 Z**
	Add Cess @ 1% on "Z"				**97.57**
	Cost of 10.00 sqm				**9854.32**
	Cost of 1.00 sqm				**985.43**
	Say				**985.45**
	FOR DPA 30% LESS				**689.815**

13.59 Forming groove of uniform size in the top layer of washed stone grit plaster as per approved pattern using wooden battens, nailed to the under layer, including removal of wooden battens, repair to the edges of panels and finishing the groove complete as per specifications and direction of the Engineer-in-charge :

13.59.1 15 mm wide and 15 mm deep groove

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 mtrs Second class kail wood in plank 30 x0.015 x0.015m =6.75cudm Wastage @ 10% = 0.68 Total = 7.43 cudm Assuming that the battens shall become unserviceable after using 5 times Cost for using once = 7.43 / 5 = 1.48 cudm				
	MATERIAL				

1198	Second class kail wood in planks	10 cudm	0.148	260.00	**38.48**
9977	Carriage of wood	L.S.	0.39	2.12	**0.83**
	Labour for making battens				**0.00**
0112	Carpenter 2nd class	day	0.15	714.00	**107.10**
0114	Beldar	day	0.15	645.00	**96.75**
9999	Sundries	L.S.	2.86	2.12	**6.06**
	Labour for nailing the battens to under				**0.00**
	layer and finishing and repairing				**0.00**
	grooves				**0.00**
0123	Mason (brick layer) 1st class	day	0.70	784.00	**548.80**
0114	Beldar	day	0.70	645.00	**451.50**
9999	Nails and cement mortar	L.S.	71.76	2.12	**152.13**
	TOTAL				**1401.65**
	Add 1 % Water charges on "W"				**14.02**
	TOTAL				**1415.67**
	Add GST on "X" (multiplying factor 0.1405)				**198.90**
	TOTAL				**1614.57**
	Add 15% CPOH on "Y"				**242.19**
	TOTAL				**1856.75**
	Add Cess @ 1% on "Z"				**18.57**
	Cost of 30.00 mtrs				**1875.32**
	Cost of 1.00 metre				**62.51**
	Say				**62.50**
	FOR DPA 30% LESS				**43.75**

13.59.2 20 mm wide and 15 mm deep groove

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 mtrs				
	Second class kail wood in plank				
	30 x0.02 x0.015m =9.00 cudm				
	Wastage @ 10% = 0.90				
	Total = 9.90 cudm				
	Assuming that the battens shall become unserviceable after using 5 times				
	Cost for using once = 9.9 / 5				
	= 1.98 cudm				
	MATERIAL				
1198	Second class kail wood in planks	10 cudm	0.198	260.00	**51.48**
9977	Carriage of wood	L.S.	0.52	2.12	**1.10**
	Labour for making battens				**0.00**
0112	Carpenter 2nd class	day	0.15	714.00	**107.10**
0114	Beldar	day	0.15	645.00	**96.75**
9999	Sundries	L.S.	2.86	2.12	**6.06**
	Labour for nailing the battens to under				**0.00**
	layer and finishing and repairing				**0.00**
	grooves				**0.00**
0123	Mason (brick layer) 1st class	day	0.70	784.00	**548.80**
0114	Beldar	day	0.70	645.00	**451.50**
9999	Nails and cement mortar	L.S.	71.76	2.12	**152.13**
	TOTAL				**1414.93 W**
	Add 1 % Water charges on "W"				**14.15**
	TOTAL				**1429.08 X**
	Add GST on "X" (multiplying factor 0.1405)				**200.79**
	TOTAL				**1629.86 Y**
	Add 15% CPOH on "Y"				**244.48**
	TOTAL				**1874.34 Z**
	Add Cess @ 1% on "Z"				**18.74**
	Cost of 30.00 mtrs				**1893.08**
	Cost of 1.00 metre				**63.10**

	Say				63.10
	FOR DPA 30% LESS				**44.17**

13.60 Extra for washed grit plaster on exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
9999	Scaffolding	L.S.	215.28	2.12	456.39
0123	Mason (brick layer) 1st class	day	0.30	784.00	235.20
0114	Beldar	day	0.30	645.00	193.50
0101	Bhisti	day	0.15	714.00	107.10
9999	Sundries	L.S.	28.60	2.12	60.63
	TOTAL				1052.83
	Add 1 % Water charges on “W”				10.53
	TOTAL				1063.35
	Add GST on “X” (multiplying factor 0.1405)				149.40
	TOTAL				1212.76
	Add 15% CPOH on “Y”				181.91
	TOTAL				1394.67
	Add Cess @ 1% on “Z”				13.95
	Cost of 10.00 sqm				1408.62
	Cost of 1.00 sqm				140.86
	Say				140.85
	FOR DPA 30% LESS				**98.60**

13.61 Extra for washed stone grit plaster on circular work not exceeding 6 m in radius (in two coats).

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	53.82	2.12	114.10
	TOTAL				828.60 W
	Add 1 % Water charges on "W"				8.29
	TOTAL				836.88 X
	Add GST on "X" (multiplying factor 0.1405)				117.58
	TOTAL				954.47 Y
	Add 15% CPOH on "Y"				143.17
	TOTAL				1097.64 Z
	Add Cess @ 1% on "Z"				10.98
	Cost of 10.00 sqm				1108.61
	Cost of 1.00 sqm				110.86
	Say				110.85
	FOR DPA 30% LESS				**77.60**

13.62 Forming groove of uniform size from 12x12 mm and upto 25x15 mm in the top layer of washed stone grit plastered surface as per approved pattern, including providing and fixing aluminum channels of appropriate size and thickness (not less than 2 mm), nailed to the under layer with rust proof screws and nails and finishing the groove complete as per specifications and direction of the Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 mtrs				
	Aluminium channel section 15 x 15 x 2 mm (weight 0.221 kg/mtr)				
	Qty = 30 + 5% wastage = 31.5 m @ 0.221 kg/m = 6.96 kg.				
7306	Aluminium T or L sections	kilogram	6.96	190.00	1322.40

9977	Carriage	L.S.	38.98	2.12	**82.64**
	Labour for fixing				
0117	Assistant Fitter or 2nd class Fitter	day	0.46	714.00	**328.44**
0114	Beldar	day	0.15	645.00	**96.75**
9999	Sundries	L.S.	2.86	2.12	**6.06**
9999	Nails and cement mortar	L.S.	71.76	2.12	**152.13**
	TOTAL				**1988.42 W**
	Add 1 % Water charges on "W"				**19.88**
	TOTAL				**2008.31 X**
	Add GST on "X" (multiplying factor 0.1405)				**282.17**
	TOTAL				**2290.47 Y**
	Add 15% CPOH on "Y"				**343.57**
	TOTAL				**2634.04 Z**
	Add Cess @ 1% on "Z"				**26.34**
	Cost of 30.00 mtrs				**2660.38**
	Cost of 1.00 metre				**88.68**
	Say				**88.70**
	FOR DPA 30% LESS				**62.09**

13.63 Extra for using white cement in place of ordinary cement in the top layer of the item of washed stone grit plaster.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Add for				
0368	White Cement	tonne	0.10	11200.00	1120.00
	Deduct for ordinary cement				
0367	Portland Cement (OPC-43 grade)	tonne	-0.10	5000.00	-500.00
	TOTAL				620.00 W
	Add 1 % Water charges on "W"				6.20
	TOTAL				626.20 X
	Add GST on "X" (multiplying factor 0.1405)				87.98
	TOTAL				714.18 Y
	Add 15% CPOH on "Y"				107.13
	TOTAL				821.31 Z
	Add Cess @ 1% on "Z"				8.21
	Cost of 10.00 sqm				829.52
	Cost of 1.00 sqm				82.95
	Say				82.95
	FOR DPA 30% LESS				**58.07**

13.64 Providing and applying 12 mm thick (average) premixed formulated one coat gypsum lightweight plaster having additives and light weight aggregates as vermiculite/ perlite respectively conforming to IS: 2547 (Part - 1 & II) 1976, applied on hacked / uneven background such as bare brick/ block/ RCC work on walls & ceiling at all floors and locations, finished in smooth line and level etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
0868 0155 0115	Detail of cost for 10 sqm MATERIAL Premixed super white gypsum plaster @ 16.14kg /sqm = 61.40 + 5% wastage = 161.40+8.07= 169.47 kg Premixed super white gypsum plaster. LABOUR Mason (average) Coolie	kg day day	169.47 1.20 1.20	6.00 749.00 645.00	**1016.82** **898.80** **774.00**
9999	Scaffolding and sundries	L.S.	12.61	2.12	**26.73**
	TOTAL				**2716.35 W**
	Add 1 % Water charges on "W"				**27.16**
	TOTAL				**2743.52 X**
	Add GST on "X" (multiplying factor 0.1405)				**385.46**
	TOTAL				**3128.98 Y**
	Add 15% CPOH on "Y"				**469.35**

	TOTAL				**3598.33 Z**
	Add Cess @ 1% on "Z"				**35.98**
	Cost of 10.00 sqm				**3634.31**
	Cost of 1.00 sqm				**363.43**
	Say				**363.45**
	FOR DPA 30% LESS				**254.415**

13.65 Extra for addition of synthetic Polyester triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 in cement plaster/ mortar by using 125 gms. of synthetic Polyester triangular fibre for 50 Kgs. cement used in cement mortar as per directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for per bag of 50 kg of cement used in mortar				
	MATERIAL				
8733	Synthetic ploystер triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 including labour for mixing	kg	0.125	410.00	**51.25**
	TOTAL				**51.25 W**
	Add 1 % Water charges on "W"				**0.51**
	TOTAL				**51.76 X**
	Add GST on "X" (multiplying factor 0.1405)				**7.27**
	TOTAL				**59.04 Y**
	Add 15% CPOH on "Y"				**8.86**
	TOTAL				**67.89 Z**
	Add Cess @ 1% on "Z"				**0.68**
	Cost per bag of cement				**68.57**
	Say				**68.55**
	FOR DPA 30% LESS				**47.99**

13.66 Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0824	Cement base wall care putty	kg	14.58	13.00	**189.54**
	10x0.001x1429 = 14.29kg				
	Add 2% wastage= 0.29kg				
	Total = 14.58kg Say 14.58 kg				
9977	Carriage	L.S.	3.90	2.12	**8.27**
	LABOUR				
0122	Mason (for plaster of paris work)				
	1st class	day	0.45	784.00	**352.80**
0114	Beldar	day	0.45	645.00	**290.25**
9999	Scaffolding and sundries	L.S.	40.00	2.12	**84.80**
	TOTAL				**925.66 W**
	Add 1 % Water charges on "W"				**9.26**
	TOTAL				**934.91 X**
	Add GST on "X" (multiplying factor 0.1405)				**131.36**
	TOTAL				**1066.27 Y**
	Add 15% CPOH on "Y"				**159.94**
	TOTAL				**1226.21 Z**
	Add Cess @ 1% on "Z"				**12.26**
	Cost of 10.00 sqm				**1238.47**
	Cost of 1.00 sqm				**123.85**
	Say				**123.85**
	FOR DPA 30% LESS				**86.70**

13.67 Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.

13.67.1 One coat

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm MATERIAL				
0802	Acrylic distemper 1st quality , having VOC content less than 50 gm/kg	Kg	0.62	40.00	**24.80**
9999	Brushes, putty etc.	L.S.	0.52	2.12	**1.10**
9988	Sundries including carriage	L.S.	10.79	2.12	**22.87**
	LABOUR				
0131	Painter	day	0.33	714.00	**235.62**
0115	Coolie	day	0.17	645.00	**109.65**
9999	Scaffolding and sundries	L.S.	7.15	2.12	**15.16**
	TOTAL				**409.21 W**
	Add 1 % Water charges on "W"				**4.09**
	TOTAL				**413.30 X**
	Add GST on "X" (multiplying factor 0.1405)				**58.07**
	TOTAL				**471.37 Y**
	Add 15% CPOH on "Y"				**70.70**
	TOTAL				**542.07 Z**
	Add Cess @ 1% on "Z"				**5.42**
	Cost of 10.00 sqm				**547.49**
	Cost of 1.00 sqm				**54.75**
	Say				**54.75**
	FOR DPA 30% LESS				**38.33**

13.67.2 Two coats

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0802	Acrylic distemper 1st quality, having VOC content less than 50 gm/kg	Kg	0.99	40.00	**39.60**
9999	Brushes, putty etc.	L.S.	11.57	2.12	**24.53**
9988	Sundries including carriage	L.S.	4.42	2.12	**9.37**
	LABOUR				
0131	Painter	day	0.40	714.00	**285.60**
0115	Coolie	day	0.46	645.00	**296.70**
9999	Scaffolding and sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**672.89 W**
	Add 1 % Water charges on "W"				**6.73**
	TOTAL				**679.61 X**
	Add GST on "X" (multiplying factor 0.1405)				**95.49**
	TOTAL				**775.10 Y**
	Add 15% CPOH on "Y"				**116.27**
	TOTAL				**891.37 Z**
	Add Cess @ 1% on "Z"				**8.91**
	Cost of 10.00 sqm				**900.28**
	Cost of 1.00 sqm				**90.03**
	Say				**90.05**
	FOR DPA 30% LESS				**63.04**

13.68 Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.

13.68.1 One coat

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0803	Acrylic emulsion , having VOC content less than 50 gm/ltr	litre	0.53	94.00	**49.82**

9999	For filling holes and cracks with putty etc	L.S.	0.52	2.12	**1.10**
9977	Carriage of material	L.S.	5.33	2.12	**11.30**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Brushes, sand paper etc.	L.S.	8.06	2.12	**17.09**
9999	Sundries	L.S.	6.76	2.12	**14.33**
	TOTAL				**582.88 W**
	Add 1 % Water charges on "W"				**5.83**
	TOTAL				**588.71 X**
	Add GST on "X" (multiplying factor 0.1405)				**82.71**
	TOTAL				**671.42 Y**
	Add 15% CPOH on "Y"				**100.71**
	TOTAL				**772.14 Z**
	Add Cess @ 1% on "Z"				**7.72**
	Cost of 10.00 sqm				**779.86**
	Cost of 1.00 sqm				**77.99**
	Say				**78.00**
	FOR DPA 30% LESS				**54.6**

13.68.2 Two coats

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0803	Acrylic emulsion , having VOC content less than 50 gm/ltr	litre	0.84	94.00	**78.96**
9999	For filling holes and cracks with putty etc	L.S.	1.43	2.12	**3.03**
9977	Carriage of material	L.S.	6.76	2.12	**14.33**
	LABOUR				
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
9999	Brushes, sand paper etc.	L.S.	10.79	2.12	**22.87**
9999	Sundries	L.S.	6.76	2.12	**14.33**
	TOTAL				**867.39 W**
	Add 1 % Water charges on "W"				**8.67**
	TOTAL				**876.06 X**
	Add GST on "X" (multiplying factor 0.1405)				**123.09**
	TOTAL				**999.15 Y**
	Add 15% CPOH on "Y"				**149.87**
	TOTAL				**1149.02 Z**
	Add Cess @ 1% on "Z"				**11.49**
	Cost of 10.00 sqm				**1160.51**
	Cost of 1.00 sqm				**116.05**
	Say				**116.05**
	FOR DPA 30% LESS				**81.24**

13.71 Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.

13.71.1 One coat

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0804	Premium acrylic emulsion of interior grade, having VOC content less than 50 gm/ltr.	litre	0.38	200.00	**76.00**
9999	For filling holes and cracks with putty etc	L.S.	0.52	2.12	**1.10**
9977	Carriage of material	L.S.	0.91	2.12	**1.93**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**

9999	Brushes, sand paper etc.	L.S.	8.06	2.12	**17.09**
9999	Sundries	L.S.	6.76	2.12	**14.33**
	TOTAL				**599.69 W**
	Add 1 % Water charges on "W"				**6.00**
	TOTAL				**605.69 X**
	Add GST on "X" (multiplying factor 0.1405)				**85.10**
	TOTAL				**690.79 Y**
	Add 15% CPOH on "Y"				**103.62**
	TOTAL				**794.40 Z**
	Add Cess @ 1% on "Z"				**7.94**
	Cost of 10.00 sqm				**802.35**
	Cost of 1.00 sqm				**80.23**
	Say				**80.25**
	FOR DPA 30% LESS				**56.18**

13.71.2 Two coats

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm MATERIAL				
0804	Premium acrylic emulsion of interior				
	grade, having VOC content less than 50 gm/ltr.	litre L.S.	0.60	200.00	**120.00**
9999	For filling holes and cracks with putty etc Carriage	L.S.	1.43	2.12	**3.03**
9977	of material	day	6.76	2.12	**14.33**
0131	LABOUR		0.54	714.00	**385.56**
	Painter				
0115	Coolie	day L.S.	0.54	645.00	**348.30**
9999	Brushes, sand paper etc.		10.79	2.12	**22.87**
9999	Sundries	L.S.	6.76	2.12	**14.33**
	TOTAL				**908.43 W**
	Add 1 % Water charges on "W"				**9.08**
	TOTAL				**917.51 X**
	Add GST on "X" (multiplying factor 0.1405)				**128.91**
	TOTAL				**1046.42 Y**
	Add 15% CPOH on "Y"				**156.96**
	TOTAL				**1203.39 Z**
	Add Cess @ 1% on "Z"				**12.03**
	Cost of 10.00 sqm				**1215.42**
	Cost of 1.00 sqm				**121.54**
	Say				**121.55**
	FOR DPA 30% LESS				**85.09**

13.72 Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :
13.72.2 Two or more coats on new work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	1.16	175.00	**203.00**
9999	For filling holes and cracks with putty etc	L.S.	5.33	2.12	**11.30**
9977	Carriage	L.S.	1.43	2.12	**3.03**
	LABOUR				**0.00**
0131	Painter	day	0.54	714.00	**385.56**
0115	Coolie	day	0.54	645.00	**348.30**
9999	Brushes, sand paper etc	L.S.	6.76	2.12	**14.33**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**982.61**
	Add 1 % Water charges on "W"				**9.83**
	TOTAL				**992.44**
	Add GST on "X" (multiplying factor 0.1405)				**139.44**
	TOTAL				**1131.87**

	Add 15% CPOH on "Y"				**169.78**
	TOTAL				**1301.65**
	Add Cess @ 1% on "Z"				**13.02**
	Cost of 10.00 sqm				**1314.67**
	Cost of 1.00 sqm				**131.47**
	Say				**131.45**
	FOR DPA 30% LESS				**92.02**

13.73 Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.

13.73.1 With ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0806	Ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 gms/lit.	litre	0.75	105.00	**78.75**
9999	Putty	L.S.	2.73	2.12	**5.79**
9977	Carriage of material	L.S.	0.39	2.12	**0.83**
	LABOUR				
0131	Painter	day	0.25	714.00	**178.50**
0115	Coolie	day	0.25	645.00	**161.25**
9999	Brushes, sand paper etc.	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	10.79	2.12	**22.87**
	TOTAL				**459.29 W**
	Add 1 % Water charges on "W"				**4.59**
	TOTAL				**463.88 X**
	Add GST on "X" (multiplying factor 0.1405)				**65.18**
	TOTAL				**529.06 Y**
	Add 15% CPOH on "Y"				**79.36**
	TOTAL				**608.42 Z**
	Add Cess @ 1% on "Z"				**6.08**
	Cost of 10.00 sqm				**614.50**
	Cost of 1.00 sqm				**61.45**
	Say				**61.45**
	FOR DPA 30% LESS				**43.015**

13.73.2 With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.54	120.00	**64.80**
9977	Carriage	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	0.24	714.00	**171.36**
0115	Coolie	day	0.24	645.00	**154.80**
9999	Brushes,sand paper including sundries	L.S.	10.79	2.12	**22.87**
	TOTAL				**414.94 W**
	Add 1 % Water charges on "W"				**4.15**
	TOTAL				**419.09 X**
	Add GST on "X" (multiplying factor 0.1405)				**58.88**
	TOTAL				**477.97 Y**
	Add 15% CPOH on "Y"				**71.70**
	TOTAL				**549.66 Z**
	Add Cess @ 1% on "Z"				**5.50**

	Cost of 10.00 sqm				**555.16**
	Cost of 1.00 sqm				**55.52**
	Say				**55.50**
	FOR DPA 30% LESS				**38.85**

13.73.3 With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 gms/lit.	litre	0.70	50.00	**35.00**
9977	Carriage of material	L.S.	8.06	2.12	**17.09**
	LABOUR				
0131	Painter	day	0.40	714.00	**285.60**
0115	Coolie	day	0.20	645.00	**129.00**
9999	Brushes, sand paper etc.	L.S.	7.15	2.12	**15.16**
	TOTAL				**481.85 W**
	Add 1 % Water charges on "W"				**4.82**
	TOTAL				**486.66 X**
	Add GST on "X" (multiplying factor 0.1405)				**68.38**
	TOTAL				**555.04 Y**
	Add 15% CPOH on "Y"				**83.26**
	TOTAL				**638.30 Z**
	Add Cess @ 1% on "Z"				**6.38**
	Cost of 10.00 sqm				**644.68**
	Cost of 1.00 sqm				**64.47**
	Say				**64.45**
	FOR DPA 30% LESS				**45.12**

13.74 6 mm plaster on cement concrete or reinforced cement concrete work with white cement based polymer modified self curing mortar of approved make as per the direction of Engineer-In-Charge.

Code	Description	Unit	Quantity	Rate	Amount
0772	Detail of cost for 10 sqm MATERIAL White cement based polymer modified self curing compound in powder form i/c 2% wastage	kg	46.00	15.00	**690.00**
9977 0155 0115	Carriage of white cement based polymer modified self curing compound in powder form LABOUR Mason (average) Coolie	L.S. day day	7.80 0.51 0.75	2.12 749.00 645.00	**16.54 381.99 483.75**
9999	Extra for removing burrs, cleaning with wire brushes and pock making with pointed tools etc.	L.S.	13.39	2.12	**28.39**
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Scaffolding and sunderies	L.S.	11.70	2.12	**24.80**
	TOTAL				**1625.47 W**
	Add 1 % Water charges on "W"				**16.25**
	TOTAL				**1641.72 X**
	Add GST on "X" (multiplying factor 0.1405)				**230.66**
	TOTAL				**1872.38 Y**
	Add 15% CPOH on "Y"				**280.86**
	TOTAL				**2153.24 Z**
	Add Cess @ 1% on "Z"				**21.53**
	Cost of 10 sqm				**2174.77**
	Cost of 1 sqm				**217.48**
	Say				**217.50**
	FOR DPA 30% LESS				**152.25**

13.87 White washing with lime to give an even shade :

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0775	Dehradun white lime	quintal	0.02	600.00	**12.00**
9977	Carriage of lime	L.S.	0.52	2.12	**1.10**
	LABOUR				
0141	White Washer	day	0.11	714.00	**78.54**
0115	Coolie	day	0.06	645.00	**38.70**
9999	Indigo gum etc	L.S.	2.73	2.12	**5.79**
9999	Sundries ladders etc	L.S.	2.73	2.12	**5.79**
	TOTAL				**141.92 W**
	Add 1 % Water charges on "W"				**1.42**
	TOTAL				**143.34 X**
	Add GST on "X" (multiplying factor 0.1405)				**20.14**
	TOTAL				**163.48 Y**
	Add 15% CPOH on "Y"				**24.52**
	TOTAL				**188.00 Z**
	Add Cess @ 1% on "Z"				**1.88**
	Cost of 10.00 sqm				**189.88**
	Cost of 1.00 sqm				**18.99**
	Say				**19.00**
	FOR DPA 30% LESS				**13.3**

13.87.2 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0775	Dehradun white lime	quintal	0.01	600.00	**6.00**
9977	Carriage of lime	L.S.	0.52	2.12	**1.10**
	LABOUR				
0141	White Washer	day	0.07	714.00	**49.98**
0115	Coolie	day	0.03	645.00	**19.35**
9999	Indigo gum etc	L.S.	2.08	2.12	**4.41**

Code	Description	Unit	Quantity	Rate	Amount
9999	Sundries ladders etc	L.S.	2.73	2.12	**5.79**
	TOTAL				**86.63 W**
	Add 1 % Water charges on "W"				**0.87**
	TOTAL				**87.50 X**
	Add GST on "X" (multiplying factor 0.1405)				**12.29**
	TOTAL				**99.79 Y**
	Add 15% CPOH on "Y"				**14.97**
	TOTAL				**114.76 Z**
	Add Cess @ 1% on "Z"				**1.15**
	Cost of 10.00 sqm				**115.91**
	Cost of 1.00 sqm				**11.59**
	Say				**11.60**
	FOR DPA 30% LESS				**8.12**

13.88 Removing white or colour wash by scrapping and sand papering and preparing the surface

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	LABOUR				
0114	Beldar	day	0.09	645.00	**58.05**
0115	Coolie	day	0.04	645.00	**25.80**
0101	Bhisti	day	0.04	714.00	**28.56**
9999	Sundries such as sand paper and scrapper	L.S.	2.73	2.12	**5.79**
9999	Repair to scraches	L.S.	1.82	2.12	**3.86**
	TOTAL				**122.06 W**

	Add 1 % Water charges on "W"				**1.22**
	TOTAL				**123.28 X**
	Add GST on "X" (multiplying factor 0.1405)				**17.32**
	TOTAL				**140.60 Y**
	Add 15% CPOH on "Y"				**21.09**
	TOTAL				**161.69 Z**
	Add Cess @ 1% on "Z"				**1.62**
	Cost of 10 sqm.				**163.30**
	Cost of 1 sqm.				**16.33**
	Say				**16.35**
	FOR DPA 30% LESS				**11.445**

13.90 Distempering with 1st quality acrylic distember (Ready mix) having VOC content less

Code	Description	Unit	Quantity	Rate	Amount
0802	Details of cost for 10 sqm. MATERIAL				
9999	Acrylic distemper 1st quality , having VOC content less than 50 grams/ litre	kilogram	1.00	40.00	**40.00**
9988	Brushes, putty etc.	L.S.	0.52	2.12	**1.10**
	Sundries including carriage	L.S.	10.79	2.12	**22.87**

Code	Description	Unit	Quantity	Rate	Amount
	LABOUR				
0131	Painter	day	0.33	714.00	**235.62**
0115	Coolie	day	0.17	645.00	**109.65**
9999	Sundries	L.S.	7.15	2.12	**15.16**
	TOTAL				**424.41 W**
	Add 1 % Water charges on "W"				**4.24**
	TOTAL				**428.65 X**
	Add GST on "X" (multiplying factor 0.1405)				**60.23**
	TOTAL				**488.87 Y**
	Add 15% CPOH on "Y"				**73.33**
	TOTAL				**562.21 Z**
	Add Cess @ 1% on "Z"				**5.62**
	Cost of 10 sqm.				**567.83**
	Cost of 1 sqm.				**56.78**
	Say				**56.80**
	FOR DPA 30% LESS				**39.76**

13.91 Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping,

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	LABOUR				
0114	Beldar	day	0.11	645.00	**70.95**
0115	Coolie	day	0.05	645.00	**32.25**
0101	Bhisti	day	0.05	714.00	**35.70**
9999	Scrapper, sand paper etc.	L.S.	6.24	2.12	**13.23**
9999	Sundries including mortar to repair the surface	L.S.	1.82	2.12	**3.86**
	TOTAL				**155.99 W**
	Add 1 % Water charges on "W"				**1.56**
	TOTAL				**157.55 X**
	Add GST on "X" (multiplying factor 0.1405)				**22.14**
	TOTAL				**179.68 Y**
	Add 15% CPOH on "Y"				**26.95**
	TOTAL				**206.63 Z**
	Add Cess @ 1% on "Z"				**2.07**
	Cost of 10 sqm.				**208.70**
	Cost of 1 sqm.				**20.87**
	Say				**20.85**
	FOR DPA 30% LESS				**14.595**

13.92 Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture

Code	Description	Unit	Quantity	Rate	Amount
0845	Details of cost for 10 sqm. MATERIAL Roofing paint for iron sheets in red colour	litre	0.46	120.00	**55.20**
9977	Carriage	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Putty, brushes sand paper etc.	L.S.	6.76	2.12	**14.33**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**576.96 W**
	Add 1 % Water charges on "W"				**5.77**
	TOTAL				**582.73 X**
	Add GST on "X" (multiplying factor 0.1405)				**81.87**
	TOTAL				**664.60 Y**
	Add 15% CPOH on "Y"				**99.69**
	TOTAL				**764.29 Z**
	Add Cess @ 1% on "Z"				**7.64**
	Cost of 10 sqm.				**771.94**
	Cost of 1 sqm.				**77.19**
	Say				**77.20**
	FOR DPA 30% LESS				**54.04**

13.93 Painting (two or more coats) on rain water, soil, waste and vent pipes and

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 metres				
	Area=22/7 x0.0814m x30m =7.67 sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.41	120.00	**49.20**
9977	Carraige	L.S.	0.39	2.12	**0.83**
	LABOUR				
0131	Painter	day	0.18	714.00	**128.52**
0115	Coolie	day	0.18	645.00	**116.10**
9999	Brushes, sand paper etc	L.S.	8.19	2.12	**17.36**
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.73	100.00	**73.00**
9977	Carraige	L.S.	1.04	2.12	**2.20**
	LABOUR				
0131	Painter	day	0.41	714.00	**292.74**
0115	Coolie	day	0.41	645.00	**264.45**
9999	Putty, sand paper etc	L.S.	4.16	2.12	**8.82**
9999	Sundries	L.S.	6.24	2.12	**13.23**
9999	Wire brushes for cleaning	L.S.	4.42	2.12	**9.37**
9999	Extra for delays	L.S.	40.3	2.12	**85.44**
	TOTAL				**1061.26 W**
	Add 1 % Water charges on "W"				**10.61**
	TOTAL				**1071.87 X**
	Add GST on "X" (multiplying factor 0.1405)				**150.60**
	TOTAL				**1222.47 Y**
	Add 15% CPOH on "Y"				**183.37**
	TOTAL				**1405.84 Z**
	Add Cess @ 1% on "Z"				**14.06**
	Cost of 30.00 metres				**1419.90**
	Cost of 1.00 metre				**47.33**
	Say				**47.35**
	FOR DPA 30% LESS				**33.145**

13.94 Painting (one or more coats) on rain water, soil waste and vent pipes and fittings

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 metres				
	Area=22/7 x0.0814m x30m =7.67 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.43	100.00	**43.00**
9977	Carriage	L.S.	0.39	2.12	**0.83**
	LABOUR				
0131	Painter	day	0.27	714.00	**192.78**
0115	Coolie	day	0.27	645.00	**174.15**
9999	Putty, sand paper etc	L.S.	4.16	2.12	**8.82**
9999	Sundries	L.S.	6.24	2.12	**13.23**
9999	Wire brushes for cleaning	L.S.	4.42	2.12	**9.37**
9999	Extra for delays	L.S.	26.91	2.12	**57.05**
	TOTAL				**499.22 W**
	Add 1 % Water charges on "W"				**4.99**
	TOTAL				**504.22 X**
	Add GST on "X" (multiplying factor 0.1405)				**70.84**
	TOTAL				**575.06 Y**
	Add 15% CPOH on "Y"				**86.26**
	TOTAL				**661.32 Z**
	Add Cess @ 1% on "Z"				**6.61**
	Cost of 30.00 metres				**667.93**
	Cost of 1.00 metre				**22.26**
	Say				**22.25**
	FOR DPA 30% LESS				**15.575**

13.94.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 metres				
	Area = 22/7x106.4 mmx30 m				
	= 10.032 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.57	100.00	**57.00**
9977	Carriage	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Putty, sand paper brushes etc.	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	8.06	2.12	**17.09**
9999	Wire brushes for cleaning	L.S.	5.33	2.12	**11.30**
9999	Extra for delay	L.S.	34.06	2.12	**72.21**
	TOTAL				**659.24 W**
	Add 1 % Water charges on "W"				**6.59**
	TOTAL				**665.83 X**
	Add GST on "X" (multiplying factor 0.1405)				**93.55**
	TOTAL				**759.38 Y**
	Add 15% CPOH on "Y"				**113.91**
	TOTAL				**873.28 Z**
	Add Cess @ 1% on "Z"				**8.73**
	Cost of 30.00 metres				**882.02**
	Cost of 1.00 metre				**29.40**
	Say				**29.40**
	FOR DPA 30% LESS				**20.58**

13.94.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 metres				
	Area = 22/7x157.2 mmx30 m				

	= 14.82 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.85	100.00	**85.00**
9977	Carriage	L.S.	0.65	2.12	**1.38**
	LABOUR				
0131	Painter	day	0.53	714.00	**378.42**
0115	Coolie	day	0.53	645.00	**341.85**
9999	Putty, sand paper brushes etc.	L.S.	8.06	2.12	**17.09**
9999	Sundries	L.S.	11.96	2.12	**25.36**
9999	Wire brushes for cleaning	L.S.	7.14	2.12	**15.14**
9999	Extra for delay	L.S.	40.30	2.12	**85.44**
	TOTAL				**949.66 W**
	Add 1 % Water charges on "W"				**9.50**
	TOTAL				**959.16 X**
	Add GST on "X" (multiplying factor 0.1405)				**134.76**
	TOTAL				**1093.92 Y**
	Add 15% CPOH on "Y"				**164.09**
	TOTAL				**1258.01 Z**
	Add Cess @ 1% on "Z"				**12.58**
	Cost of 30.00 metres				**1270.59**
	Cost of 1.00 metre				**42.35**
	Say				**42.35**
	FOR DPA 30% LESS				**29.645**

13.95 Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 metres Area=22/7 x0.0814m x30m =7.67 sqm				

Code	Description	Unit	Quantity	Rate	Amount
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.41	120.00	**49.20**
9977	Carriage	L.S.	0.39	2.12	**0.83**
	LABOUR				
0131	Painter	day	0.18	714.00	**128.52**
0115	Coolie	day	0.18	645.00	**116.10**
9999	Sundries	L.S.	8.19	2.12	**17.36**
	MATERIAL				
0826	Aluminium paint	litre	0.61	150.00	**91.50**
9977	Carriage	L.S.	1.04	2.12	**2.20**
9999	Putty, sand paper etc	L.S.	4.16	2.12	**8.82**
	LABOUR				
0131	Painter	day	0.41	714.00	**292.74**
0115	Coolie	day	0.41	645.00	**264.45**
9999	Sundries	L.S.	5.20	2.12	**11.02**
9999	Wire brushes for cleaning	L.S.	9.10	2.12	**19.29**
9999	Extra for delays	L.S.	44.85	2.12	**95.08**
	TOTAL				**1097.12 W**
	Add 1 % Water charges on "W"				**10.97**
	TOTAL				**1108.09 X**
	Add GST on "X" (multiplying factor 0.1405)				**155.69**
	TOTAL				**1263.78 Y**
	Add 15% CPOH on "Y"				**189.57**
	TOTAL				**1453.35 Z**
	Add Cess @ 1% on "Z"				**14.53**
	Cost of 30.00 metres				**1467.88**
	Cost of 1.00 metre				**48.93**
	Say				**48.95**
	FOR DPA 30% LESS				**34.265**

13.95.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 metres				
	Area=22/7 x106.4x30m =10.032sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.54	120.00	**64.80**
9977	Carriage	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	0.24	714.00	**171.36**
	0.18 x 10.032 / 7.67 = 0.24				
0115	Coolie	day	0.24	645.00	**154.80**
9999	Sundries	L.S.	10.79	2.12	**22.87**
	MATERIAL				
0826	Aluminium paint	litre	1.16	150.00	**174.00**
	0.61 x 10.032 / 7.67 = 0.80				
9977	Carriage	L.S.	1.43	2.12	**3.03**
9999	Putty, sand paper etc	L.S.	5.33	2.12	**11.30**
	LABOUR				
0131	Painter	day	0.54	714.00	**385.56**
	0.41 x 10.032 / 7.67 = 0.54				
0115	Coolie	day	0.54	645.00	**348.30**
9999	Sundries	L.S.	6.76	2.12	**14.33**
9999	Wire brushes for cleaning	L.S.	11.96	2.12	**25.36**
9999	Extra for delays	L.S.	66.43	2.12	**140.83**
	TOTAL				**1517.65 W**
	Add 1 % Water charges on "W"				**15.18**
	TOTAL				**1532.82 X**
	Add GST on "X" (multiplying factor 0.1405)				**215.36**
	TOTAL				**1748.18 Y**
	Add 15% CPOH on "Y"				**262.23**
	TOTAL				**2010.41 Z**
	Add Cess @ 1% on "Z"				**20.10**
	Cost of 30.00 metres				**2030.52**
	Cost of 1.00 metre				**67.68**
	Say				**67.70**
	FOR DPA 30% LESS				**47.39**

13.95.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 metres				
	Area=22/7 x157.12x30m =14.82 sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.80	120.00	**96.00**
9977	Carriage	L.S.	0.65	2.12	**1.38**
	LABOUR				
0131	Painter	Day	0.36	714.00	**257.04**
	0.18 x 14.82 / 7.67 = 0.36				
0115	Coolie	Day	0.36	645.00	**232.20**
9999	Sundries	L.S.	15.99	2.12	**33.90**
	MATERIAL				
0826	Aluminium paint	litre	1.72	150.00	**258.00**
	0.61 x 14.82 / 7.67 = 1.72				
9977	Carriage	L.S.	2.08	2.12	**4.41**
9999	Putty, sand paper etc	L.S.	7.93	2.12	**16.81**
	LABOUR				
0131	Painter	day	0.80	714.00	**571.20**
	0.41 x 14.82 / 7.67 = 0.80				
0115	Coolie	day	0.80	645.00	**516.00**
9999	Sundries	L.S.	10.01	2.12	**21.22**

9999	Wire brushes for cleaning	L.S.	17.81	2.12	**37.76**
9999	Extra for delays	L.S.	101.4	2.12	**214.97**
	TOTAL				**2260.88 W**
	Add 1 % Water charges on "W"				**22.61**
	TOTAL				**2283.49 X**
	Add GST on "X" (multiplying factor 0.1405)				**320.83**
	TOTAL				**2604.32 Y**
	Add 15% CPOH on "Y"				**390.65**
	TOTAL				**2994.97 Z**
	Add Cess @ 1% on "Z"				**29.95**
	Cost of 30.00 metres				**3024.92**
	Cost of 1.00 metre				**100.83**
	Say				**100.85**
	FOR DPA 30% LESS				**70.595**

13.96 Painting (one or more coats) on rain water, soil waste and vent pipes and fittings with

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 metres				
	Area = 22/7x0.0814 mmx30 m				
	= 7.67 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.35	150.00	**52.50**
9999	Putty, sand paper etc.	L.S.	0.39	2.12	**0.83**
9977	Carriage	L.S.	2.08	2.12	**4.41**
	LABOUR				
0131	Painter	day	0.28	714.00	**199.92**
0115	Coolie	day	0.28	645.00	**180.60**
9999	Putty, sand paper brushes etc.	L.S.	4.16	2.12	**8.82**
9999	Sundries	L.S.	6.24	2.12	**13.23**
9999	Wire brushes for cleaning	L.S.	4.42	2.12	**9.37**
9999	Extra for delay	L.S.	26.91	2.12	**57.05**
	TOTAL				**526.72 W**
	Add 1 % Water charges on "W"				**5.27**
	TOTAL				**531.99 X**
	Add GST on "X" (multiplying factor 0.1405)				**74.74**
	TOTAL				**606.74 Y**
	Add 15% CPOH on "Y"				**91.01**
	TOTAL				**697.75 Z**
	Add Cess @ 1% on "Z"				**6.98**
	Cost of 30.00 metres				**704.72**
	Cost of 1.00 metre				**23.49**
	Say				**23.50**
	FOR DPA 30% LESS				**16.45**

13.96.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 metres				
	Area = 22/7x106.4 mmx30 m				
	= 10.032 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.46	150.00	**69.00**
9999	Putty, sand paper etc.	L.S.	0.52	2.12	**1.10**
9977	Carriage	L.S.	2.73	2.12	**5.79**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Putty, sand paper brushes etc.	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	8.06	2.12	**17.09**

9999	Wire brushes for cleaning	L.S.	5.33	2.12	**11.30**

Code	Description	Unit	Quantity	Rate	Amount
9999	Extra for delay	L.S.	34.06	2.12	**72.21**
	TOTAL				**677.02 W**
	Add 1 % Water charges on "W"				**6.77**
	TOTAL				**683.79 X**
	Add GST on "X" (multiplying factor 0.1405)				**96.07**
	TOTAL				**779.87 Y**
	Add 15% CPOH on "Y"				**116.98**
	TOTAL				**896.85 Z**
	Add Cess @ 1% on "Z"				**8.97**
	Cost of 30.00 metres				**905.82**
	Cost of 1.00 metre				**30.19**
	Say				**30.20**
	FOR DPA 30% LESS				**21.14**

13.96.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 metres				
	Area = 22/7x157.2 mmx30 m				
	= 14.82 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.68	150.00	**102.00**
9999	Putty, sand paper etc.	L.S.	0.65	2.12	**1.38**
9977	Carriage	L.S.	3.90	2.12	**8.27**
	LABOUR				
0131	Painter	day	0.53	714.00	**378.42**
0115	Coolie	day	0.53	645.00	**341.85**
9999	Putty, sand paper brushes etc.	L.S.	7.93	2.12	**16.81**
9999	Sundries	L.S.	11.96	2.12	**25.36**
9999	Wire brushes for cleaning	L.S.	7.15	2.12	**15.16**
9999	Extra for delay	L.S.	40.30	2.12	**85.44**
	TOTAL				**974.68 W**
	Add 1 % Water charges on "W"				**9.75**
	TOTAL				**984.42 X**
	Add GST on "X" (multiplying factor 0.1405)				**138.31**
	TOTAL				**1122.74 Y**
	Add 15% CPOH on "Y"				**168.41**
	TOTAL				**1291.15 Z**
	Add Cess @ 1% on "Z"				**12.91**
	Cost of 30.00 metres				**1304.06**
	Cost of 1.00 metre				**43.47**
	Say				**43.45**
	FOR DPA 30% LESS				**30.415**

13.97 Painting with oil type wood preservative of approved brand and manufacture:

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0859	Oil type wood preservative	litre	0.81	130.00	**105.30**
9977	Carriage of material	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	0.11	714.00	**78.54**
0115	Coolie	day	0.11	645.00	**70.95**
9999	Brushes etc	L.S.	2.73	2.12	**5.79**
9999	Sundries	L.S.	2.73	2.12	**5.79**
	TOTAL				**267.47 W**
	Add 1 % Water charges on "W"				**2.67**
	TOTAL				**270.14 X**

	Add GST on "X" (multiplying factor 0.1405)				**37.95**
	TOTAL				**308.10 Y**
	Add 15% CPOH on "Y"				**46.21**
	TOTAL				**354.31 Z**
	Add Cess @ 1% on "Z"				**3.54**
	Cost of 10.00 sqm				**357.85**
	Cost of 1.00 sqm				**35.79**
	Say				**35.80**
	FOR DPA 30% LESS				**25.06**

13.98 Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade:

13.98.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0804	Premium plastic acrylic emulsion of interior grade, having VOC content less than 50 grams/ litre	litre	0.73	200.00	**146.00**
9999	Material for filling holes and cracks (putty etc.)	L.S.	0.52	2.12	**1.10**
9977	Carriage of material	L.S.	5.33	2.12	**11.30**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Brushes, sand paper etc	L.S.	8.06	2.12	**17.09**
9999	Sundries	L.S.	6.76	2.12	**14.33**
	TOTAL				**679.06 W**
	Add 1 % Water charges on "W"				**6.79**
	TOTAL				**685.85 X**
	Add GST on "X" (multiplying factor 0.1405)				**96.36**
	TOTAL				**782.21 Y**
	Add 15% CPOH on "Y"				**117.33**
	TOTAL				**899.55 Z**
	Add Cess @ 1% on "Z"				**9.00**
	Cost of 10.00 sqm				**908.54**
	Cost of 1.00 sqm				**90.85**
	Say				**90.85**
	FOR DPA 30% LESS				**63.595**

13.99 Painting with synthetic enamel paint of approved brand and manufacture of required colour

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	0.70	175.00	**122.50**
9977	Carriage of paint and materials	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Putty	L.S.	2.73	2.12	**5.79**
9999	Brushes sand paper etc.	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**647.02 W**
	Add 1 % Water charges on "W"				**6.47**
	TOTAL				**653.49 X**
	Add GST on "X" (multiplying factor 0.1405)				**91.81**

	TOTAL				745.30 Y
	Add 15% CPOH on "Y"				111.80
	TOTAL				857.10 Z
	Add Cess @ 1% on "Z"				8.57
	Cost of 10.00 sqm				865.67
	Cost of 1.00 sqm				86.57
	Say				86.55
	FOR DPA 30% LESS				**60.585**

13.100 Painting with aluminium paint of approved brand and manufacture to give an even shade:

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.46	150.00	69.00
9977	Carriage of paint and material	L.S.	0.52	2.12	1.10
9999	Putty etc	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				593.52 W
	Add 1 % Water charges on "W"				5.94
	TOTAL				599.45 X
	Add GST on "X" (multiplying factor 0.1405)				84.22
	TOTAL				683.67 Y
	Add 15% CPOH on "Y"				102.55
	TOTAL				786.23 Z
	Add Cess @ 1% on "Z"				7.86
	Cost of 10.00 sqm				794.09
	Cost of 1.00 sqm				79.41
	Say				79.40
	FOR DPA 30% LESS				**55.58**

13.101 Painting with acid proof paint of approved brand and manufacture of required colour to give

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0827	Acid proof paint (chocolate or black)	litre	0.70	225.00	157.50
9977	Carriage of paint	L.S.	0.52	2.12	1.10
9999	Putty etc	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				682.02 W
	Add 1 % Water charges on "W"				6.82
	TOTAL				688.84 X
	Add GST on "X" (multiplying factor 0.1405)				96.78
	TOTAL				785.62 Y
	Add 15% CPOH on "Y"				117.84
	TOTAL				903.46 Z
	Add Cess @ 1% on "Z"				9.03
	Cost of 10.00 sqm				912.50
	Cost of 1.00 sqm				91.25
	Say				91.25
	FOR DPA 30% LESS				**63.875**

13.102 Painting with black anti-corrosive bitumastic paint of approved brand and manufacture

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.57	100.00	**57.00**
9977	Carriage	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Putty, brushes, sand paper etc	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**575.73 W**
	Add 1 % Water charges on "W"				**5.76**
	TOTAL				**581.49 X**
	Add GST on "X" (multiplying factor 0.1405)				**81.70**
	TOTAL				**663.19 Y**
	Add 15% CPOH on "Y"				**99.48**
	TOTAL				**762.66 Z**
	Add Cess @ 1% on "Z"				**7.63**
	Cost of 10.00 sqm				**770.29**
	Cost of 1.00 sqm				**77.03**
	Say				**77.05**
	FOR DPA 30% LESS				**53.935**

13.101 Painting with acid proof paint of approved brand and manufacture of required colour to give

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0827	Acid proof paint (chocolate or black)	litre	0.70	225.00	**157.50**
9977	Carriage of paint	L.S.	0.52	2.12	**1.10**
9999	Putty etc	L.S.	2.73	2.12	**5.79**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Brushes, sand paper etc	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**682.02 W**
	Add 1 % Water charges on "W"				**6.82**
	TOTAL				**688.84 X**
	Add GST on "X" (multiplying factor 0.1405)				**96.78**
	TOTAL				**785.62 Y**
	Add 15% CPOH on "Y"				**117.84**
	TOTAL				**903.46 Z**
	Add Cess @ 1% on "Z"				**9.03**
	Cost of 10.00 sqm				**912.50**
	Cost of 1.00 sqm				**91.25**
	Say				**91.25**
	FOR DPA 30% LESS				**63.875**

13.102 Painting with black anti-corrosive bitumastic paint of approved brand and manufacture

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.57	100.00	**57.00**
9977	Carriage	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Putty, brushes, sand paper etc	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**575.73 W**

	Add 1 % Water charges on "W"				**5.76**
	TOTAL				**581.49 X**
	Add GST on "X" (multiplying factor 0.1405)				**81.70**
	TOTAL				**663.19 Y**
	Add 15% CPOH on "Y"				**99.48**
	TOTAL				**762.66 Z**
	Add Cess @ 1% on "Z"				**7.63**
	Cost of 10.00 sqm				**770.29**
	Cost of 1.00 sqm				**77.03**
	Say				**77.05**
	FOR DPA 30% LESS				**53.935**

13.103 French spirit polishing :

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
1000	Spirit	litre	0.98	48.00	**47.04**
0999	Shellac	kilogram	0.13	300.00	**39.00**
9977	Carriage of materials	L.S.	0.91	2.12	**1.93**
9999	Turpentine oil sand paper cotton/woolen cloth putty etc.	L.S.	10.79	2.12	**22.87**
9999	Linseed oil	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	1.76	714.00	**1256.64**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**1385.67 W**
	Add 1 % Water charges on "W"				**13.86**
	TOTAL				**1399.53 X**
	Add GST on "X" (multiplying factor 0.1405)				**196.63**
	TOTAL				**1596.16 Y**
	Add 15% CPOH on "Y"				**239.42**
	TOTAL				**1835.59 Z**
	Add Cess @ 1% on "Z"				**18.36**
	Cost of 10.00 sqm				**1853.94**
	Cost of 1.00 sqm				**185.39**
	Say				**185.40**
	FOR DPA 30% LESS				**129.78**

13.104 Polishing on wood work with ready made wax polish of approved brand and manufacture :

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0855	Wax polish (ready made)	kilogram	0.25	230.00	**57.50**
9977	Caariage	L.S.	0.39	2.12	**0.83**
	LABOUR				
0131	Painter	day	0.40	714.00	**285.60**
0115	Coolie	day	0.40	645.00	**258.00**
9999	Soap, brushes, cloth etc	L.S.	4.16	2.12	**8.82**
9999	Sundries	L.S.	4.42	2.12	**9.37**
	TOTAL				**620.12 W**
	Add 1 % Water charges on "W"				**6.20**
	TOTAL				**626.32 X**
	Add GST on "X" (multiplying factor 0.1405)				**88.00**
	TOTAL				**714.32 Y**
	Add 15% CPOH on "Y"				**107.15**
	TOTAL				**821.46 Z**

	Add Cess @ 1% on "Z"				**8.21**
	Cost of 10.00 sqm				**829.68**
	Cost of 1.00 sqm				**82.97**
	Say				**82.95**
	FOR DPA 30% LESS				**58.065**

13.105 Re-lettering with black Japan paint of approved brand and manufacture.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 100 letters of				
	15 cm height				
	MATERIAL				
0829	Black Japan paint	litre	0.37	90.00	**33.30**
9977	Carriage	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	4.00	714.00	**2856.00**
0115	Coolie	day	1.00	645.00	**645.00**
9999	Painting brushes, turpentine, stencil etc	L.S.	7.15	2.12	**15.16**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**3567.65 W**
	Add 1 % Water charges on "W"				**35.68**
	TOTAL				**3603.32 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**506.27**
	TOTAL				**4109.59 Y**
	Add 15% CPOH on "Y"				**616.44**
	TOTAL				**4726.03 Z**
	Add Cess @ 1% on "Z"				**47.26**
	Cost of 100 letters of 15 cm height				**4773.29**
	Cost per letter per cm height				**3.18**
	Say				**3.20**
	FOR DPA 30% LESS				**2.24**

13.106 Painting (one or more coats) with black Japan paint of approved brand and manufacture to

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0829	Black Japan paint	litre	0.70	90.00	**63.00**
9977	Carriage	L.S.	0.52	2.12	**1.10**
9999	Putty etc.	L.S.	2.73	2.12	**5.79**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Brushes, sand paper etc.	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**587.52 W**
	Add 1 % Water charges on "W"				**5.88**
	TOTAL				**593.39 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**83.37**
	TOTAL				**676.76 Y**
	Add 15% CPOH on "Y"				**101.51**
	TOTAL				**778.28 Z**
	Add Cess @ 1% on "Z"				**7.78**
	Cost of 10.00 sqm				**786.06**
	Cost of 1sqm				**78.61**
	Say				**78.60**
	FOR DPA 30% LESS				**55.02**

13.107 Providing and fixing C.P. brass chain and rubber plug complete for sink or wash basin:

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 no.				
	MATERIAL				
1314	C.P.brass chain with 32 mm dia				
	rubber plug	each	1.00	40.00	**40.00**
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	**17.09**
	TOTAL				**57.09 W**
	Add 1 % Water charges on "W"				**0.57**
	TOTAL				**57.66 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**8.10**
	TOTAL				**65.76 Y**
	Add 15% CPOH on "Y"				**9.86**
	TOTAL				**75.62 Z**
	Add Cess @ 1% on "Z"				**0.76**
	Cost of each				**76.38**
	Say				**76.40**
	FOR DPA 30% LESS				**53.48**

13.107.2 40 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 no.				
	MATERIAL				
1315	C.P.brass chain with 40 mm dia				
	rubber plug	each	1.00	40.00	**40.00**
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	**17.09**
	TOTAL				**57.09 W**
	Add 1 % Water charges on "W"				**0.57**
	TOTAL				**57.66 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**8.10**
	TOTAL				**65.76 Y**
	Add 15% CPOH on "Y"				**9.86**
	TOTAL				**75.62 Z**
	Add Cess @ 1% on "Z"				**0.76**
	Cost of each				**76.38**
	Say				**76.40**
	FOR DPA 30% LESS				**53.48**

13.108 Distempering with 1st quality acrylic distemper (ready made) having VOC content less

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm MATERIAL				
0802	Acrylic distemper 1st quality , having VOC content less than 50 grams/ litre	kilogram	1.00	40.00	**40.00**
9999	Brushes, putty etc	L.S.	0.52	2.12	**1.10**
9988	Sundries including carriage of material	L.S.	10.76	2.12	**22.81**
	LABOUR				
0131	Painter	day	0.22	714.00	**157.08**
0114	Beldar	day	0.22	645.00	**141.90**
9999	Sundries	L.S.	7.15	2.12	**15.16**
	TOTAL				**378.05 W**
	Add 1 % Water charges on "W"				**3.78**
	TOTAL				**381.83 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**53.65**
	TOTAL				**435.48 Y**
	Add 15% CPOH on "Y"				**65.32**
	TOTAL				**500.80 Z**
	Add Cess @ 1% on "Z"				**5.01**
	Cost of 10.00 sqm				**505.81**
	Cost of 1.00 sqm				**50.58**
	Say				**50.60**
	FOR DPA 30% LESS				**35.42**

13.107 Providing and fixing C.P. brass chain and rubber plug complete for sink or wash basin:

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 no.				
	MATERIAL				
1314	C.P.brass chain with 32 mm dia				
	rubber plug	each	1.00	40.00	**40.00**
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	**17.09**
	TOTAL				**57.09 W**
	Add 1 % Water charges on "W"				**0.57**
	TOTAL				**57.66 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**8.10**
	TOTAL				**65.76 Y**
	Add 15% CPOH on "Y"				**9.86**
	TOTAL				**75.62 Z**
	Add Cess @ 1% on "Z"				**0.76**
	Cost of each				**76.38**
	Say				**76.40**
	FOR DPA 30% LESS				**53.48**

13.107.2 40 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 no.				
	MATERIAL				
1315	C.P.brass chain with 40 mm dia				
	rubber plug	each	1.00	40.00	**40.00**
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	**17.09**
	TOTAL				**57.09 W**
	Add 1 % Water charges on "W"				**0.57**
	TOTAL				**57.66 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**8.10**
	TOTAL				**65.76 Y**
	Add 15% CPOH on "Y"				**9.86**
	TOTAL				**75.62 Z**
	Add Cess @ 1% on "Z"				**0.76**
	Cost of each				**76.38**
	Say				**76.40**
	FOR DPA 30% LESS				**53.48**

13.108 Distempering with 1st quality acrylic distemper (ready made) having VOC content less

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm MATERIAL				
0802	Acrylic distemper 1st quality , having VOC content less than 50 grams/ litre	kilogram	1.00	40.00	**40.00**
9999	Brushes, putty etc	L.S.	0.52	2.12	**1.10**
9988	Sundries including carriage of material	L.S.	10.76	2.12	**22.81**
	LABOUR				
0131	Painter	day	0.22	714.00	**157.08**
0114	Beldar	day	0.22	645.00	**141.90**
9999	Sundries	L.S.	7.15	2.12	**15.16**
	TOTAL				**378.05 W**
	Add 1 % Water charges on "W"				**3.78**
	TOTAL				**381.83 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**53.65**
	TOTAL				**435.48 Y**
	Add 15% CPOH on "Y"				**65.32**
	TOTAL				**500.80 Z**
	Add Cess @ 1% on "Z"				**5.01**

	Cost of 10.00 sqm				**505.81**
	Cost of 1.00 sqm				**50.58**
	Say				**50.60**
	FOR DPA 30% LESS				**35.42**

13.109.2 Old work (one or more coats @ 2.20 kg/10 sqm) complete.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0851	Water proofing cement paint	kilogram	2.20	38.00	**83.60**
9977	Carriage of material	L.S.	1.10	2.12	**2.33**
	LABOUR				
0131	Painter	day	0.35	714.00	**249.90**
0115	Coolie	day	0.12	645.00	**77.40**
0101	Bhisti	day	0.05	714.00	**35.70**
9999	Brushes, sand paper etc	L.S.	3.15	2.12	**6.68**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**472.70 W**
	Add 1 % Water charges on "W"				**4.73**
	TOTAL				**477.42 X**
	Add GST on "X" (multiplying factor 0.1405)				**67.08**
	TOTAL				**544.50 Y**
	Add 15% CPOH on "Y"				**81.68**
	TOTAL				**626.18 Z**
	Add Cess @ 1% on "Z"				**6.26**
	Cost of 10.00 sqm				**632.44**
	Cost of 1.00 sqm				**63.24**
	Say				**63.25**
	FOR DPA 30% LESS				**44.275**

13.110 Finishing walls with textured exterior paint of required shade :

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8507	Textured exterior paint	litre	3.28	280.00	**918.40**
9977	Carriage of material	L.S.	1.56	2.12	**3.31**
	LABOUR				
0131	Painter	day	0.46	714.00	**328.44**
0115	Coolie	day	0.23	645.00	**148.35**
9999	Brushes, sand paper etc	L.S.	7.15	2.12	**15.16**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**1430.74 W**
	Add 1 % Water charges on "W"				**14.31**
	TOTAL				**1445.05 X**
	Add GST on "X" (multiplying factor 0.1405)				**203.03**
	TOTAL				**1648.08 Y**
	Add 15% CPOH on "Y"				**247.21**
	TOTAL				**1895.29 Z**
	Add Cess @ 1% on "Z"				**18.95**
	Cost of 10.00 sqm				**1914.24**
	Cost of 1.00 sqm				**191.42**
	Say				**191.40**
	FOR DPA 30% LESS				**133.98**

13.110.2 Old work (One or more coats) applied @ 1.82 ltr/10 sqm.

Code	Description	Unit	Quantity	Rate ₹	₹ Amount
	Detail of cost for 10 sqm				

	MATERIAL				
8507	Textured exterior paint	litre	1.82	280.00	509.60
9977	Carriage of material	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.33	714.00	235.62
0115	Coolie	day	0.17	645.00	109.65
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				888.22 W
	Add 1 % Water charges on "W"				8.88
	TOTAL				897.10 X
	Add GST on "X" (multiplying factor 0.1405)				126.04
	TOTAL				1023.14 Y
	Add 15% CPOH on "Y"				153.47
	TOTAL				1176.61 Z
	Add Cess @ 1% on "Z"				11.77
	Cost of 10.00 sqm				1188.38
	Cost of 1.00 sqm				118.84
	Say				118.85
	FOR DPA 30% LESS				**83.195**

13.111 Finishing walls with Acrylic Smooth exterior paint of required shade :

13.111.1 Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface

Code	Description	Unit	Quantity	Rate ₹	₹ Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8505	Acrylic exterior paint	litre	1.67	200.00	334.00
9977	Carriage of material	L.S.	0.91	2.12	1.93
	LABOUR				
0131	Painter	day	0.46	714.00	328.44
0115	Coolie	day	0.23	645.00	148.35
9999	Brushes, sand paper etc	L.S.	4.81	2.12	10.20
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				834.22 W
	Add 1 % Water charges on "W"				8.34
	TOTAL				842.56 X
	Add GST on "X" (multiplying factor 0.1405)				118.38
	TOTAL				960.94 Y
	Add 15% CPOH on "Y"				144.14
	TOTAL				1105.08 Z
	Add Cess @ 1% on "Z"				11.05
	Cost of 10.00 sqm				1116.13
	Cost of 1.00 sqm				111.61
	Say				111.60
	FOR DPA 30% LESS				**78.12**

13.111.2 Old work (One or more coat applied @ 0.90 ltr/10 sqm).

Code	Description	Unit	Quantity	Rate ₹	₹ Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8505	Acrylic exterior paint	litre	0.90	200.00	180.00
9977	Carriage of material	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.33	714.00	235.62
0115	Coolie	day	0.17	645.00	109.65
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				558.62 W
	Add 1 % Water charges on "W"				5.59
	TOTAL				564.20 X
	Add GST on "X" (multiplying factor 0.1405)				79.27
	TOTAL				643.47 Y
	Add 15% CPOH on "Y"				96.52

	TOTAL				740.00 Z
	Add Cess @ 1% on "Z"				7.40
	Cost of 10.00 sqm				747.40
	Cost of 1.00 sqm				74.74
	Say				74.75
	FOR DPA 30% LESS				**52.325**

13.112 Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade

13.112.1 Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface

Code	Description	Unit	Quantity	Rate ₹	₹Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8506	Premium Acrylic exterior paint	litre	1.43	210.00	300.30
9977	Carriage of material	L.S.	1.04	2.12	2.20
	LABOUR				
0131	Painter	day	0.46	714.00	328.44
0115	Coolie	day	0.23	645.00	148.35
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				811.54 W
	Add 1 % Water charges on “W”				8.12
	TOTAL				819.66 X
	Add GST on “X” (multiplying factor 0.1405)				115.16
	TOTAL				934.82 Y
	Add 15% CPOH on “Y”				140.22
	TOTAL				1075.04 Z
	Add Cess @ 1% on “Z”				10.75
	Cost of 10.00 sqm				1085.79
	Cost of 1.00 sqm				108.58
	Say				108.60
	FOR DPA 30% LESS				**76.02**

13.112.2 Old work (one or more coats applied @ 0.83 ltr/10 sqm).

Code	Description	Unit	Quantity	Rate ₹	₹Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8506	Premium Acrylic exterior paint	litre	0.83	210.00	174.30
9977	Carriage of material	L.S.	0.91	2.12	1.93
	LABOUR				
0131	Painter	day	0.33	714.00	235.62
0115	Coolie	day	0.17	645.00	109.65
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				553.74 W
	Add 1 % Water charges on "W"				5.54
	TOTAL				559.28 X
	Add GST on "X" (multiplying factor 0.1405)				78.58
	TOTAL				637.86 Y
	Add 15% CPOH on "Y"				95.68
	TOTAL				733.54 Z
	Add Cess @ 1% on "Z"				7.34
	Cost of 10.00 sqm				740.88
	Cost of 1.00 sqm				74.09
	Say				74.10
	FOR DPA 30% LESS				**51.87**

13.113 Varnishing with varnish of approved brand and manufacture:

13.113.1 One or more coats with copal varnish

Code	Description	Unit	Quantity	Rate ₹	₹Amount
	Detail of cost for 10 sqm				

	MATERIAL				
0857	Superior copal varnish	litre	0.70	115.00	80.50
9977	Carriage	L.S.	0.52	2.12	1.10
9999	Repair to the surface	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				593.72 W
	Add 1 % Water charges on "W"				5.94
	TOTAL				599.65 X
	Add GST on "X" (multiplying factor 0.1405)				84.25
	TOTAL				683.91 Y
	Add 15% CPOH on "Y"				102.59
	TOTAL				786.49 Z
	Add Cess @ 1% on "Z"				7.86
	Cost of 10.00 sqm				794.36
	Cost of 1.00 sqm				79.44
	Say				79.45
	FOR DPA 30% LESS				**55.615**

13.113.2 One or more coats with spar varnish

Code	Description	Unit	Quantity	Rate ₹	₹ Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0858	Superior spar varnish	litre	0.75	115.00	86.25
9977	Carriage	L.S.	0.52	2.12	1.10
9999	Repair etc	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	2.73	2.12	5.79
9999	Sundries	L.S.	4.16	2.12	8.82
	TOTAL				596.99 W
	Add 1 % Water charges on "W"				5.97
	TOTAL				602.96 X
	Add GST on "X" (multiplying factor 0.1405)				84.72
	TOTAL				687.67 Y
	Add 15% CPOH on "Y"				103.15
	TOTAL				790.82 Z
	Add Cess @ 1% on "Z"				7.91
	Cost of 10.00 sqm				798.73
	Cost of 1.00 sqm				79.87
	Say				79.85
	FOR DPA 30% LESS				**55.895**

13.114 Melamine polishing on wood work (one or more coat).

Code	Description	Unit	Quantity	Rate ₹	₹ Amount
	Detail of cost for 10 sqm				
	MATERIAL				
7241	Melamine polish	litre	0.65	300.00	195.00
0006	Hire charges of Spraying machine including electric charges	day	0.78	250.00	195.00
9988	Carriage charge of Machine & Marerial	L.S.	4.42	2.12	9.37
	LABOUR				
0131	Painter	day	0.35	714.00	249.90
0114	Beldar	day	0.35	645.00	225.75
9999	Sundries	L.S.	4.42	2.12	9.37
	TOTAL				884.39 W

	Add 1 % Water charges on "W"				8.84
	TOTAL				893.23 X
	Add GST on "X" (multiplying factor 0.1405)				125.50
	TOTAL				1018.73 Y
	Add 15% CPOH on "Y"				152.81
	TOTAL				1171.54 Z
	Add Cess @ 1% on "Z"				11.72
	Cost of 10.00 sqm				1183.26
	Cost of 1.00 sqm				118.33
	Say				118.35
	FOR DPA 30% LESS				**82.845**

13.115 Varnishing with flatting varnish of approved brand and manufacture one or more coats on old

Code	Description	Unit	Quantity	Rate ₹	₹ Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0856	Ordinary varnish	litre	0.70	100.00	70.00
9999	Glue, putty etc	L.S.	2.73	2.12	5.79
9977	Carriage	L.S.	1.82	2.12	3.86
9999	Painting brushes, turpentine, stencil etc	L.S.	24.18	2.12	51.26
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
	TOTAL				620.15 W
	Add 1 % Water charges on "W"				6.20
	TOTAL				626.35 X
	Add GST on "X" (multiplying factor 0.1405)				88.00
	TOTAL				714.35 Y
	Add 15% CPOH on "Y"				107.15
	TOTAL				821.50 Z
	Add Cess @ 1% on "Z"				8.22
	Cost of 10.00 sqm				829.72
	Cost of 1.00 sqm				82.97
	Say				82.95
	FOR DPA 30% LESS				**58.065**

13.116 Polishing in high gloss/matt finish melamine clear polish on wood work in required color/wooden shade texture with following process in the sequence as detailed below:

1. The surface to be polished is rubbed with sand paper 80/120 no. and then with sand paper of 160/180 nos.

2. Applying two coats of sealer with spray gun and allowing sufficient drying time for 1st coat and 2nd coat is allowed to dry for 8 to 12 hrs.

3. On drying of sealer coat, wet rubbing with emery cloth of finer grading with ample water to remove excess sealer layer and make the surface further smooth after this wet rubbing, then surface is applied with special grade melamine fillers to fill all the small and big holes/grooves etc. Filler coat to be allowed to dry for 4 to 6 hrs on which again a light wet rubbing is done this surface is further allowed to dry for 12 hrs.

4. On this, 1st coat of melamine polish is applied with spray gun using melamine clear polish and melamine thinner in required proportion. This 1st coat is allowed to dry for 24 hrs then this dry surface is again fine wet rubbed smooth, which is further allowed to dry for 12 hrs. The final melamine polish is applied with compressor pressure spray gun using melamine clear polish and melamine thinner mixed in required proportion complete as per direction of Engineer-in-Charge. (Final coat to be done in 1 or 2 layers without gap of time.)

Code	Description	Unit	Quantity	Rate ₹	₹ Amount
7241	Detail of cost for 10 sqm MATERIAL Melamine Matt clear polish	litre	1.56	300.00	468.00

5766 5767 5768 5769 5770 5771 0167 0168 0114 0006 9999 5779	Melamine wood sealer Melamine solvent/thinner Sanding cloth 150 mm wide Sand papers of assorted gratings Melamine wood filler putty Dhoti (worm out soft cotton cloth) LABOUR Polisher 1st class Polisher 2nd class Beldrs/Coolies Hire charges of compressor machine spare gun etc., with electric charges Sundries including scaffolding & T&P etc. Grinding buffers TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10.00 sqm Cost of 1.00 sqm Say	litre litre metre Nos Kg Nos day day day day L.S. day	2.80 2.85 6.00 16.00 1.50 2.00 1.66 3.25 2.00 1.25 300.00 2.00	190.00 120.00 60.00 22.00 120.00 25.00 784.00 714.00 645.00 250.00 2.12 250.00	532.00 342.00 360.00 352.00 180.00 50.00 1301.44 2320.50 1290.00 312.50 636.00 500.00 8644.44 W 86.44 8730.88 X 1226.69 9957.57 Y 1493.64 11451.21 Z 114.51 11565.72 1156.57 1156.55
	FOR DPA 30% LESS				**809.585**

SUB HEAD 14
REPAIR TO BUILDING

14.1 Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq.meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer- in-Charge.

14.1.1 With cement mortar 1:4 (1 cement : 4 fine sand)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.183	3713.20	679.52
	LABOUR				
0155	Mason (average)	day	1.21	749.00	906.29
0115	Coolie	day	1.29	645.00	832.05
0114	Beldar	day	0.54	645.00	348.30
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	15.21	2.12	32.25
	TOTAL				3455.28 W
	Add 1 % Water charges on "W"				34.55
	TOTAL				3489.83 X
	Add GST on "X" (multiplying factor 0.1405)				490.32
	TOTAL				3980.16 Y
	Add 15% CPOH on "Y"				597.02
	TOTAL				4577.18 Z
	Add Cess @ 1% on "Z"				45.77
	Cost of 10.00 sqm				4622.95
	Cost of 1.00 sqm				462.30
	Say				462.30
	FOR DPA 30% LESS				**323.61**

14.1.2 With cement mortar 1:4 (1cement: 4 coarse sand)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.183	4355.20	797.00
	LABOUR				
0155	Mason (average)	day	1.21	749.00	906.29
0115	Coolie	day	1.29	645.00	832.05
0114	Beldar	day	0.54	645.00	348.30
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	15.21	2.12	32.25
	TOTAL				3572.77 W
	Add 1 % Water charges on "W"				35.73
	TOTAL				3608.49 X
	Add GST on "X" (multiplying factor 0.1405)				506.99
	TOTAL				4115.49 Y
	Add 15% CPOH on "Y"				617.32
	TOTAL				4732.81 Z
	Add Cess @ 1% on "Z"				47.33
	Cost of 10.00 sqm				4780.14
	Cost of 1.00 sqm				478.01
	Say				478.00
	FOR DPA 30% LESS				**334.6**

14.2 Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts, embedding hold fasts in cement concrete blocks of size 15 x 10 x 10 cm with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in- Charge.

14.2.1 Door chowkhats

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for each				

0295	Stone Aggregate (Single size) :				
	20 mm nominal size	cum	0.021	1400.00	29.40
0297	Stone Aggregate (Single size) :				
	10 mm nominal size	cum	0.0072	1350.00	9.72
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	0.0282	163.93	4.62
0982	Coarse sand (zone III)	cum	0.0141	1500.00	21.15
2203	Carriage of Coarse sand	cum	0.0141	163.93	2.31
0367	Portland Cement (OPC-43 grade)	tonne	0.0066	5000.00	33.00
2209	Carriage of Cement	tonne	0.0066	145.72	0.96
0114	Beldar	day	0.027	645.00	17.42
0115	Coolie	day	0.0195	645.00	12.58
0130	Mistry	day	0.0084	784.00	6.59
0123	Mason (brick layer) 1st class	day	0.0018	784.00	1.41
0124	Mason (brick layer) 2nd class	day	0.0018	714.00	1.29
0128	Mate	day	0.0012	714.00	0.86
9999	Scaffolding	L.S.	1.43	2.12	3.03
9999	Hire and running charges of mechanical				
	mixer	L.S.	0.78	2.12	1.65
9999	Sundries	L.S.	0.39	2.12	0.83
	Cement mortar 1 : 6 (1 cement :				
	6 fine sand)				
3.6	Rate as per Item Number 3.6 of				
	SH: Mortars	cum	0.01	3044.30	30.44
9999	Cement concrete 1:2:4 filled in				
	chase cut	L.S.	24.18	2.12	51.26
9999	Painting two coats of coaltar	L.S.	13.52	2.12	28.66
9999	Disposal of mulba	L.S.	1.82	2.12	3.86
0155	Mason (average)	day	0.50	749.00	374.50
0114	Beldar	day	0.75	645.00	483.75
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				1125.07 W
	Add 1 % Water charges on "W"				11.25
	TOTAL				1136.32 X
	Add GST on "X" (multiplying				
	factor 0.1405)				159.65
	TOTAL				1295.98 Y
	Add 15% CPOH on "Y"				194.40
	TOTAL				1490.37 Z
	Add Cess @ 1% on "Z"				14.90
	Cost of each				1505.28
	Say				1505.30
	FOR DPA 30% LESS				**1053.71**

14.2.2 Window chowkhats

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for each				
0295	Stone Aggregate (Single size) : 20 mm				
	nominal size	cum	0.014	1400.00	19.60
0297	Stone Aggregate (Single size) : 10 mm				
	nominal size	cum	0.0048	1350.00	6.48
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	0.0188	163.93	3.08
0982	Coarse sand (zone III)	cum	0.0094	1500.00	14.10
2203	Carriage of Coarse sand	cum	0.0094	163.93	1.54
0367	Portland Cement (OPC-43 grade)	tonne	0.0044	5000.00	22.00
2209	Carriage of Cement	tonne	0.0044	145.72	0.64
0114	Beldar	day	0.018	645.00	11.61
0115	Coolie	day	0.013	645.00	8.39
0130	Mistry	day	0.0056	784.00	4.39
0123	Mason (brick layer) 1st class	day	0.0012	784.00	0.94
0124	Mason (brick layer) 2nd class	day	0.0012	714.00	0.86
0128	Mate	day	0.0008	714.00	0.57
9999	Scaffolding and sundries	L.S.	0.91	2.12	1.93
9999	Hire and running charges of				

	mechanical mixer	L.S.	0.52	2.12	1.10
9999	Sundries	L.S.	0.26	2.12	0.55
	Cement mortar 1 : 6 (1 cement : 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.006	3044.30	18.27
9999	Cement concrete 1:2:4	L.S.	9.88	2.12	20.95
9999	Painting two coats of coaltar	L.S.	0.91	2.12	1.93
0155	Mason (average)	day	0.33	749.00	247.17
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				708.59 W
	Add 1 % Water charges on "W"				7.09
	TOTAL				715.68 X
	Add GST on "X" (multiplying factor 0.1405)				100.55
	TOTAL				816.23 Y
	Add 15% CPOH on "Y"				122.43
	TOTAL				938.66 Z
	Add Cess @ 1% on "Z"				9.39
	Cost of each				948.05
	Say				948.05
	FOR DPA 30% LESS				**663.635**

14.2.3 Clerestory window chowkhats

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for each				
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.007	1400.00	9.80
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.0024	1350.00	3.24
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.0094	163.93	1.54
0982	Coarse sand (zone III)	cum	0.0047	1500.00	7.05
2203	Carriage of Coarse sand	cum	0.0047	163.93	0.77
0367	Portland Cement (OPC-43 grade)	tonne	0.0022	5000.00	11.00
2209	Carriage of Cement	tonne	0.0022	145.72	0.32
0114	Beldar	day	0.009	645.00	5.81
0115	Coolie	day	0.0065	645.00	4.19
0130	Mistry	day	0.0028	784.00	2.20
0123	Mason (brick layer) 1st class	day	0.0006	784.00	0.47
0124	Mason (brick layer) 2nd class	day	0.0006	714.00	0.43
0128	Mate	day	0.0004	714.00	0.29
9999	Scaffolding and sundries	L.S.	0.52	2.12	1.10
9999	Hire and running charges of mechanical mixer	L.S.	0.26	2.12	0.55
9999	Sundries	L.S.	0.13	2.12	0.28
	Cement mortar 1 : 6 (1 cement : 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.003	3044.30	9.13
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	8.06	2.12	17.09
9999	Painting two coats of coaltar	L.S.	0.91	2.12	1.93
0155	Mason (average)	day	0.17	749.00	127.33
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				532.80 W
	Add 1 % Water charges on "W"				5.33
	TOTAL				538.12 X

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X" (multiplying factor 0.1405)				75.61
	TOTAL				613.73 Y
	Add 15% CPOH on "Y"				92.06
	TOTAL				705.79 Z
	Add Cess @ 1% on "Z"				7.06
	Cost of each				712.85
	Say				712.85
	FOR DPA 30% LESS				**499.00**

14.3 Fixing chowkhat in existing opening in brick/ RCC wall with dash fasteners/ Chemical fasteners of appropriate size (3 nos on each vertical member of door chowkhat and 2 nos on each vertical member of window chowkhats), including Cost of dash fasteners/ chemical fastener.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 chowkhat.				
0114	Beldar	day	0.027	645.00	17.42
0115	Coolie	day	0.0195	645.00	12.58
0130	Mistry	day	0.0084	784.00	6.59
0128	Mate	day	0.0012	714.00	0.86
9999	Disposal of mulba	L.S.	1.82	2.12	3.86
7019	Dash fastner/ chemical fastener	each	6.00	12.50	75.00
9999	Hire charges of drill machine hire charges, Scaffolding and Sundries	L.S.	12.22	2.12	25.91
	TOTAL				142.20 W
	Add 1 % Water charges on "W"				1.42
	TOTAL				143.62 X
	Add GST on "X" (multiplying factor 0.1405)				20.18
	TOTAL				163.80 Y
	Add 15% CPOH on "Y"				24.57
	TOTAL				188.37 Z
	Add Cess @ 1% on "Z"				1.88
	Cost of each				190.25
	Say				190.25
	FOR DPA 30% LESS				**133.175**

14.4 Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground, all complete as per direction of Engineer-in- Charge.

14.4.1 For door/ window/ clerestory window

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one opening of size 0.90x2.10m = 1.89 sqm				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
3.6	Cement mortar 1:6 (1 cement:	cum L.S.	0.01	3044.30	30.44
9999	6 fine sand)	day day	24.57	2.12	52.09
0124	Rate as per Item Number 3.6 of SH: Mortars	day L.S.	0.50	714.00	357.00
0114	Cement concrete 1:2:4 filled in chase cut Mason (brick		1.20	645.00	774.00
0115	layer) 2nd class		0.40	645.00	258.00
9999	Beldar Coolie		3.50	2.12	7.42
	Scaffolding and Sundries TOTAL				1478.95 W
	Add 1 % Water charges on "W" TOTAL				14.79
	Add GST on "X" (multiplying factor 0.1405)				1493.74 X
	TOTAL				209.87
	Add 15% CPOH on "Y" TOTAL				1703.61 Y
	Add Cess @ 1% on "Z" Cost of 1.89sqm.				255.54
	Cost of 1.00 sqm. Say				1959.15 Z
					19.59
					1978.74
					1046.95
					1046.95
	FOR DPA 30% LESS				**732.445**

14.5 Renewing glass panes, with putty and nails wherever necessary including racking out the old putty:

14.5.1 Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)

Code	Description	Unit	Quantity	Rate	Amount
2406	Detail of cost for 10 glasses area each 0.1sqm.	sqm L.S.	1.10	309.00	339.90
9988	MATERIAL	kilogram	1.82	2.12	3.86
0863	Float glass panes of nominal thickness 4 mm	L.S.	0.68	28.00	19.04
9999	(weight not less than 10kg/sqm).	L.S.	5.33	2.12	11.30
9999	1.00 sqm + 10% wastage= 1.10 Sqm Carriage	day day	6.76	2.12	14.33
0119	including sundries	L.S.	0.23	714.00	164.22
0114	Putty for wood work		0.23	645.00	148.35
9999	Painting or varnishing or beewaxing Sundries Nails		1.43	2.12	3.03
	etc.				704.03 W
	Glazier Beldar				7.04
	Sundries such as Rag, cotton etc TOTAL				711.07 X
	Add 1 % Water charges on "W" TOTAL				99.91
	Add GST on "X" (multiplying factor 0.1405)				810.98 Y
	TOTAL				121.65
	Add 15% CPOH on "Y" TOTAL				932.62 Z
	Add Cess @ 1% on "Z" Cost of 1.00 sqm				9.33
	Say				941.95
					941.95
	FOR DPA 30% LESS				**659.365**

14.5.2 Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)

Code	Description	Unit	Quantity	Rate	Amount
2407	Detail of cost for 10 glasses area each 0.1sqm.	sqm L.S.	1.10	515.00	566.50
9988	MATERIAL	kilogram	1.82	2.12	3.86
0863	Float glass panes of nominal thickness 5 mm	L.S.	0.68	28.00	19.04
9999	(weight not less than 12.5kg/sqm)	L.S.	5.33	2.12	11.30
9999	1.00 sqm + 10% wastage= 1.10 Sqm Carriage	day day	6.76	2.12	14.33
0119	including sundries	L.S.	0.23	714.00	164.22
0114	Putty for wood work		0.23	645.00	148.35
9999	Painting or varnishing or beewaxing Sundries Nails		1.43	2.12	3.03
	etc.				930.63 W
	Glazier Beldar				9.31
	Sundries such as Rag, cotton etc TOTAL				939.94 X
	Add 1 % Water charges on "W" TOTAL				132.06
	Add GST on "X" (multiplying factor 0.1405)				1072.00 Y
	TOTAL				160.80
	Add 15% CPOH on "Y" TOTAL				1232.80 Z
	Add Cess @ 1% on "Z" Cost of 1.00 sqm				12.33
	Say				1245.13
					1245.15
	FOR DPA 30% LESS				**871.605**

14.6 Renewing glass panes, with wooden fillets wherever necessary:

14.6.1 Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)

Code	Description	Unit	Quantity	Rate	Amount
2406	Detail of cost for 10 glasses area each 0.1sqm.	sqm 10	1.10	309.00	339.90
1189	MATERIAL	cudm	0.025	776.00	19.40
1194	Float glass panes of nominal thickness 4 mm	10 cudm	0.025	500.00	12.50
1196	(weight not less than 10kg/sqm).	10 cudm	0.025	300.00	7.50
9999	1.00 sqm + 10% wastage= 1.10 Sqm Second class	L.S.	4.42	2.12	9.37
9999	teak wood in scantling Second class deodar wood in	L.S.	2.73	2.12	5.79
0112	planks First class kail wood in planks Painting or	day day	0.20	714.00	142.80
0119	varnishing or beewaxing Sundries Nails etc.	day L.S.	0.25	714.00	178.50
0114	Carpenter 2nd class Glazier		0.45	645.00	290.25
9999	Beldar		1.82	2.12	3.86
	Sundries such as Rag, cotton etc TOTAL				1009.87 W
	Add 1 % Water charges on "W" TOTAL				10.10
	Add GST on "X" (multiplying factor 0.1405)				1019.97 X
	TOTAL				143.31
	Add 15% CPOH on "Y" TOTAL				1163.27 Y
	Add Cess @ 1% on "Z" Cost of 1.00 sqm				174.49
	Say				1337.76 Z
					13.38
					1351.14
					1351.15
	FOR DPA 30% LESS				**945.805**

14.6.2 Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)

Code	Description	Unit	Quantity	Rate	Amount
2407 1189 1194 1196 9999 9999 0112 0119 0114 9999	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL Float glass sheet of nominal thickness Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm) 1.00 sqm + 10% wastage= 1.10 Sqm Second class teak wood in scantling Second class deodar wood in planks First class kail wood in planks Painting or varnishing or beewaxing Sundries Nails etc. Carpenter 2nd class Glazier Beldar Sundries such as Rag, cotton etc TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1.00 sqm Say	sqm 10 cudm 10 cudm 10 cudm L.S. L.S. day day day L.S.	1.10 0.025 0.025 0.025 4.42 2.73 0.20 0.25 0.45 1.82	515.00 776.00 500.00 300.00 2.12 2.12 714.00 714.00 645.00 2.12	566.50 19.40 12.50 7.50 9.37 5.79 142.80 178.50 290.25 3.86 1236.47 W 12.36 1248.83 X 175.46 1424.29 Y 213.64 1637.94 Z 16.38 1654.31 1654.30
	FOR DPA 30% LESS				**1158.01**

14.7 Renewing glass panes and refixing existing wooden fillets:

14.7.1 Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)

Code	Description	Unit	Quantity	Rate	Amount
2406 9977 9999 9999 0119 0114	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm). 1.00 sqm + 10% wastage= 1.10 Sqm Carriage of glasspanes and other materials Sundries Nails etc. Methylated spirit Glazier Beldar	sqm L.S. L.S. L.S. day day	1.10 2.73 9.88 5.33 0.30 0.30	309.00 2.12 2.12 2.12 714.00 645.00	339.90 5.79 20.95 11.30 214.20 193.50
9999	Sundries TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1.00 sqm Say	L.S.	1.43	2.12	3.03 788.66 W 7.89 796.55 X 111.92 908.47 Y 136.27 1044.74 Z 10.45 1055.18 1055.20
	FOR DPA 30% LESS				**738.64**

14.7.2 Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)

Code	Description	Unit	Quantity	Rate	Amount
2407 9977 9999 9999 0119 0114 9999	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm) 1.00 sqm + 10% wastage= 1.10 Sqm Carriage of glasspanes and other materials Sundries Nails etc. Methylated spirit Glazier Beldar Sundries TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1.00 sqm Say	sqm L.S. L.S. L.S. day day L.S.	1.10 2.73 9.88 5.33 0.30 0.30 1.43	515.00 2.12 2.12 2.12 714.00 645.00 2.12	566.50 5.79 20.95 11.30 214.20 193.50 3.03 1015.26 W 10.15 1025.42 X 144.07 1169.49 Y 175.42 1344.91 Z 13.45 1358.36 1358.35
	FOR DPA 30% LESS				**950.845**

14.8 Supplying and fixing new wooden fillets wherever necessary:

14.8.1 2nd class teak wood fillets

Code	Description	Unit	Quantity	Rate	Amount
1190 9999	Details of cost for 10 metres length MATERIAL Second class teak wood in planks 10.00x0.01x0.01 = 1.00 cudm Add 15% wastage = 0.15 cudm Total = 1.15 cudm Nails	10 cudm L.S.	0.115 26.91	791.00 2.12	90.97 57.05
0112 0114 9999	LABOUR Carpenter 2nd class Beldar Sundries TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10.00 metre Cost of 1.00 metre Say	day day L.S.	0.25 0.25 2.73	714.00 645.00 2.12	178.50 161.25 5.79 493.55 W 4.94 498.49 X 70.04 568.52 Y 85.28 653.80 Z 6.54 660.34 66.03 66.05
	FOR DPA 30% LESS				**46.235**

14.8.2 Hollock wood fillets

Code	Description	Unit	Quantity	Rate	Amount
2466 9999 0112 0114 9999	Details of cost for 10 metres length MATERIAL Hollock wood in scantling 10.00x0.01x0.01 = 1.00 cudm Add 15% wastage = 0.15 cudm Total = 1.15 cudm Nails LABOUR Carpenter 2nd class Beldar Sundries TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10.00 metre Cost of 1.00 metre Say	10 cudm L.S. day day L.S.	0.115 26.91 0.25 0.25 2.73	357.00 2.12 714.00 645.00 2.12	41.06 57.05 178.50 161.25 5.79 443.64 W 4.44 448.08 X 62.95 511.03 Y 76.65 587.69 Z 5.88 593.57 59.36 59.35
	FOR DPA 30% LESS				**41.545**

14.9 Renewal of old putty of glass panes (length)

Code	Description	Unit	Quantity	Rate	Amount
0863 9999 9999	Details of cost for 13 metres length MATERIAL Putty for wood work Nails Spirit	kilogram L.S. L.S.	0.68 7.15 2.73	28.00 2.12 2.12	19.04 15.16 5.79
0112 0114 9999	LABOUR Carpenter 2nd class Beldar Sundries TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 13.00 metres Cost of 1.00 metre Say	day day L.S.	0.30 0.30 1.43	714.00 645.00 2.12	214.20 193.50 3.03 450.72 W 4.51 455.22 X 63.96 519.18 Y 77.88 597.06 Z 5.97 603.03 46.39 46.40
	FOR DPA 30% LESS				**32.48**

14.10 Refixing old glass panes with putty and nails

Code	Description	Unit	Quantity	Rate	Amount

Code	Description	Unit	Quantity	Rate	Amount
0863 9999 9999 0119 0114 9999	Details of cost for 1 sqm Putty for wood work Spirit Nails LABOUR Glazier Beldar Sundries TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Add 15 % Contractor's profit and overheads Cost of 1.00 sqm Say	kilogram L.S. L.S. day day L.S.	0.68 2.73 7.15 0.30 0.30 1.43	28.00 2.12 2.12 714.00 645.00 2.12	19.04 5.79 15.16 214.20 193.50 3.03 450.72 W 4.51 455.22 X 63.96 519.18 Y 77.88 597.06 Z 5.97 603.03 603.03 603.05
	FOR DPA 30% LESS				**422.135**

14.11 Fixing old glass panes with wooden fillets (excluding cost of fillets)

Code	Description	Unit	Quantity	Rate	Amount
0119 0114 9999	Detail of cost for 1 sqm LABOUR Glazier Beldar Sundries	day day L.S.	0.30 0.30 1.43	714.00 645.00 2.12	214.20 193.50 3.03
9999	Nails TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1.00 sqm Say	L.S.	3.90	2.12	8.27 419.00 W 4.19 423.19 X 59.46 482.65 Y 72.40 555.04 Z 5.55 560.60 560.60
	FOR DPA 30% LESS				**392.42**

14.12 Providing and fixing 16 mm M.S. Fan clamps of standard shape and size in existing R.C.C. slab, including cutting chase, anchoring clamp to reinforcement bar, including cleaning, refilling, making good the chase with matching concrete, plastering and painting the exposed portion of the clamps complete.

Code	Description	Unit	Quantity	Rate	Amount
1003 9999 9999 0102 0124 0114 9999	Details of cost for each fan clamp. MATERIAL M.S.bar 16mm dia = 40cm (including wastage) @ 1.58 kg/m = 0.632 kg Mild steel round bar above 12 mm dia Cement concrete 1:2:4 (1 Cement : 2 Coarse sand : 4 graded stone aggregate 20mm nominal size) mortar for rendering or plastering Painting two or more coats to exposed portion of the clamp including priming coat Labour for fixing Blacksmith 1st class Mason (brick layer) 2nd class Beldar Sundries TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of each Say	quintal L.S. L.S. day day day L.S.	0.00632 13.52 7.15 0.03 0.12 0.25 2.73	4750.00 2.12 2.12 784.00 714.00 645.00 2.12	30.02 28.66 15.16 23.52 85.68 161.25 5.79 350.08 W 3.50 353.58 X 49.68 403.26 Y 60.49 463.75 Z 4.64 468.38 468.40
	FOR DPA 30% LESS				**327.88**

14.13 Raking out joints in lime or cement mortar and preparing the surface for re-pointing or replastering, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount

0114	Detail of cost for 10 sqm LABOUR	day day	0.53	645.00	341.85
0115	Beldar Coolie Bhisti Sundries TOTAL	day L.S.	0.08	645.00	51.60
0101	Add 1 % Water charges on "W" TOTAL		0.07	714.00	49.98
9999	Add GST on "X" (multiplying factor 0.1405)		1.43	2.12	3.03
	TOTAL				446.46 W
	Add 15% CPOH on "Y" TOTAL				4.46
	Add Cess @ 1% on "Z" Cost of 10.00 sqm Cost of				450.93 X
	1.00 sqm				63.36
	Say				514.28 Y
					77.14
					591.42 Z
					5.91
					597.34
					59.73
					59.75
	FOR DPA 30% LESS				**41.83**

14.14 Flush pointing with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement for flat tile bricks on top of mud phaska :

14.14.1 With F.P.S. brick tiles

Code	Description	Unit	Quantity	Rate	Amount
3.3	Detail of cost for 10 sqm MATERIAL	cum	0.015	4382.15	65.73
1213	Cement mortar 1 : 3 (1 cement :	kilogram	0.153	35.00	5.36
0115	3 fine sand)	day day	0.36	645.00	232.20
0124	Rate as per Item Number 3.3 of SH: Mortars	day L.S.	0.36	714.00	257.04
0101	Water proofing materials 2% of wt. of cement LABOUR		0.36	714.00	257.04
9999	Coolie		18.85	2.12	39.96
	Mason (brick layer) 2nd class Bhisti				857.33 W
	Sundries TOTAL				8.57
	Add 1 % Water charges on "W" TOTAL				865.90 X
	Add GST on "X" (multiplying factor 0.1405)				121.66
	TOTAL				987.56 Y
	Add 15% CPOH on "Y" TOTAL				148.13
	Add Cess @ 1% on "Z" Cost of 10.00 sqm Cost of				1135.70 Z
	1.00 sqm				11.36
	Say				1147.05
					114.71
					114.70
	FOR DPA 30% LESS				**80.29**

14.14.2 With modular brick tiles

Code	Description	Unit	Quantity	Rate	Amount
3.3	Detail of cost for 10 sqm MATERIAL	cum	0.017	4382.15	74.50
1213	Cement mortar 1 : 3 (1 cement :	kilogram	0.173	35.00	6.06
0115	3 fine sand)	day day	0.36	645.00	232.20
0124	Rate as per Item Number 3.3 of SH: Mortars	day L.S.	0.36	714.00	257.04
0101	Water proofing materials 2% of wt. of cement LABOUR		0.36	714.00	257.04
9999	Coolie		18.85	2.12	39.96
	Mason (brick layer) 2nd class Bhisti				866.79 W
	Sundries TOTAL				8.67
	Add 1 % Water charges on “W” TOTAL				875.46 X
	Add GST on “X” (multiplying factor 0.1405)				123.00
	TOTAL				998.46 Y
	Add 15% CPOH on “Y” TOTAL				149.77
	Add Cess @ 1% on “Z” Cost of 10.00 sqm Cost of 1.00				1148.23 Z
	sqm				11.48
	Say				1159.72
					115.97
					115.95
	FOR DPA 30% LESS				**81.17**

14.15 Taking out wind ties from roof including cutting out rusted bolts, nuts etc. and removing materials to any distance within compound and stacking.

Code	Description	Unit	Quantity	Rate	Amount

0103 0100 0114	Details of cost for 30 mtrs of weight 63 kgs M.S. Flats 40x6mm @ 1.9kg./m = 30x1.9 = 57 kg. (A) J' hook bolts @ 30cm centre to centre = 101 Nos. x 0.15 m = 15.15 m @ 0.40kg./ m = 6.06kg (B) Total (A+B) = 63.06 kg Say 63 kg LABOUR Blacksmith 2nd class Bandhani Beldar TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost for 63 kg. Cost of 1.00 kg Say	day day day	0.09 0.06 0.16	714.00 714.00 645.00	64.26 42.84 103.20 210.30 W 2.10 212.40 X 29.84 242.25 Y 36.34 278.58 Z 2.79 281.37 4.47 4.45
	FOR DPA 30% LESS				**3.12**

14.16 Fixing of old wind tie with new fittings including painting two or more coats with anticorrosive bitumastic paint of approved brand & manufacturer over and including priming coat of ready mixed zinc chromate yellow primer of approved brand.

Code	Description	Unit	Quantity	Rate	Amount
1023	Detail of cost for 20.2 m wind tie MATERIAL	10 Nos	6.80	120.00	816.00
1208	Galvanised steel J or L hooks 8 mm dia @ 30 cm	100 Nos	0.68	30.00	20.40
1209	center to center = 68 Nos Bitumen washer	100 Nos	0.68	35.00	23.80
9977	G.I. plain washer thick	L.S.	1.17	2.12	2.48
0102	Carriage of bolts, nuts and washers etc. LABOUR	day day	0.34	784.00	266.56
0114	Blacksmith 1st class Beldar	L.S.	0.34	645.00	219.30
9999	Sundries	sqm	13.91	2.12	29.49
13.50.3	Applying priming coat with ready mixed zink chromate	sqm	1.86	55.50	103.23 A
13.65.1	yellow primer 20.2x2x(0.04+0.006) = 1.86 sqm		1.86	115.10	214.09 A
	Rate as per item no 13.50.3 of SH : Finishing				1695.35 W
	Painting with ready mixed black antcorrosive				13.78
	bitumastic paint Rate as per item No.13.65.1 SH:				1709.13 X
	Finishing				195.55
	TOTAL				1904.68 Y
	Add 1 % Water charges on “W-A” TOTAL				238.10
	Add GST on “X-A” (multiplying factor 0.1405)				2142.78 Z
	TOTAL				18.25
	Add 15% CPOH on “Y-A” TOTAL				2161.03
	Add Cess @ 1% on “Z-A” Cost of 20.2 metres				106.98
	Cost of 1.00 metre Say				107.00
	FOR DPA 30% LESS				**74.90**

14.17 Renewing bottom rail and/or top runner of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for gate of size 1.52x2.4 m (weight 11.55 kg) MATERIAL M.S. Tee 40x40x6 mm Top rail = 1.725 m Bottom rail = 1.570 m Total = 3.295 m say 3.30 m @ 3.5 kg/m = 11.55 kg Add 10% wastage = 1.155 kg Total = 12.705 kg = 0.1270 q say 0.13 q				
1007	Structurals such as tees,angles channels and R.S.	quintal	0.13	4950.00	643.50

2205 15.12.2 4.2.5 3.6 9999 9999 13.50.3 0155 0114 9999	joists Carriage of Steel Taking out collapsible gate including frame (Rate as per item no 15.12.2 of SH Dismantling and Demolishing) Refixing of collapsible gate including mending good the demaged floor, wall etc.frame Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) Rate as per item no 4.2.5 of SH : Concrete work Cement mortar 1 : 6 (1 cement : 6 fine sand) (Rate as per item No 3.6) Cement concrete 1:2:4 filled in chase cut Disposal of mulba Priming coat on Tees 0.16x3.3 = 0.53 sqm Rate as per item no 13.50.3 of SH : Finishing LABOUR Labour for fixing the gate Mason (average) Beldar Sundries TOTAL Add 1 % Water charges on "W-A" TOTAL Add GST on "X-A" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y-A" TOTAL Add Cess @ 1% on "Z-A" Cost of 11.55 kg Cost of 1.00 kg Say	tonne each cum cum L.S. L.S. sqm day day L.S.	0.013 1.00 0.03 0.01 24.18 1.82 0.53 0.50 0.75 2.60	145.72 414.55 8843.45 3044.30 2.12 2.12 55.50 749.00 645.00 2.12	1.89 414.55 A 265.30 A 30.44 51.26 3.86 29.42 A 374.50 483.75 5.51 2303.99 W 15.95 2319.94 X 226.30 2546.23 Y 275.54 2821.78 Z 21.13 2842.90 246.14 246.15
	FOR DPA 30% LESS				**172.31**

14.18 Renewing Wrought iron or M.S. Wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc. complete.

14.18.1 Wheel 50 mm dia and below

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 nos wheels of 40 mm dia. MATERIAL Weight of 10 nos wheels				
0103 0100 0114 9999 7442 1008 1034 1215 0102 0100 0114 13.50.3 9999	10x[3.14x{(4/2)x(4/2)}x4]x7.850/1000 = 3.94 kg Weight of 10 nos clamps 6 mm thick =10x lenth of clamp =10x0.17m @ 1.90kg/m =3.23 kg Weight of 10 nos 10 mm dia. Bolts, 10 cm long 10x0.10m = 1m @ 0.60 kg/m = 0.60 kg. Total = 7.70 kg say 8 kg Labour for dismantling : Blacksmith 2nd class Bandhani Beldar Sundries Renewing the wheels with clamps :- MATERIAL Wheel 75 mm dia. 40 mm wide 10 nos clamps out of M.S. flat 40x6 mm, 170 mm long = 10x0.17m = 1.70m @ 1.9 kg/m = 3.23 kg Add 5% wastage = 0.16 kg Total = 3.39 kg say 3.50 kg Flats upto 10 mm in thickness M.S. bolt/pin 10 mm dia 10 cm long 10 Nos 10x0.06 = 0.6 kg = 0.006 q Bolts and nuts upto 300 mm in length Welding by electric plant length = 10x(2x4) = 80cm LABOUR Labour for cutting, assembling and errection charges Blacksmith 1st class Bandhani Beldar Priming coat : = 10x2(0.06+0.008)x0.25m = 0.34 sqm on Tees 0.16x3.3 = 0.53 sqm Rate as per item no 13.50.3 of SH : Finishing Sundries TOTAL Add 1 % Water charges on "W-A" TOTAL Add GST on "X-A" (multiplying factor 0.1405) TOTAL	day day day L.S. each quintal quintal cm day day day sqm L.S.	0.01 0.01 0.02 0.39 10.00 0.035 0.006 80.00 0.03 0.02 0.11 0.165 1.69	714.00 714.00 645.00 2.12 62.00 4850.00 5200.00 2.00 784.00 714.00 645.00 55.50 2.12	7.14 7.14 12.90 0.83 620.00 169.75 31.20 160.00 23.52 14.28 70.95 9.16 A 3.58 1130.45 W 11.21 1141.66 X 159.12 1300.78 Y 193.74 1494.52 Z 14.85 1509.37 150.94 150.95
	FOR DPA 30% LESS				**105.245**

14.18.2 Wheel above 50 mm dia

Code	Description	Unit	Quantity	Rate	Amount
0103 0100	Detail of cost for 10 nos wheels Considering average wheel dia =75 mm Width of wheel = 40 mm	day day day L.S.	0.04 0.03	714.00 714.00	28.56 21.42
Code	Description	Unit	Quantity	Rate	Amount

9999	Sundries TOTAL Add 1 % Water charges on "W-A" TOTAL Add GST on "X-A" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y-A" TOTAL Add Cess @ 1% on "Z-A" Cost of 10 nos wheels Cost per wheel Say	L.S.	5.33	2.12	11.30 1895.55 W 18.77 1914.32 X 266.31 2180.63 Y 324.26 2504.90 Z 24.86 2529.76 252.98 253.00
	FOR DPA 30% LESS				**177.1**

14.19 Pumping out water caused by springs, tidal or river seepage, broken water mains or drains and the like.

Code	Description	Unit	Quantity	Rate	Amount
0011 0114	Details for 10.91 kilolitre Pumping hours 3 hrs. or 0.375 days Hire charges of Pumpset of capacity 4000 litres/hour. Beldar for clearing slush TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10.91 kilolitre Cost of 1 kilolitre Say	day day	0.375 2.00	700.00 645.00	262.50 1290.00 1552.50 W 15.53 1568.03 X 220.31 1788.33 Y 268.25 2056.58 Z 20.57 2077.15 190.39 190.40
	FOR DPA 30% LESS				**133.28**

14.20 Mud mortar made with local clay good earth.

Code	Description	Unit	Quantity	Rate	Amount
0811 0114 0101 9999	Detail of cost for 1 cum MATERIAL Mud (dry) LABOUR Beldar Bhisti Sundries TOTAL Cost of 1 cum Say	cum day day L.S.	1.08 0.63 0.315 6.45	165.00 645.00 714.00 2.12	178.20 406.35 224.91 13.67 823.13 823.13 823.15
	FOR DPA 30% LESS				**576.205**

14.21 Brick work with common burnt clay bricks of class designation 7.5 in mud mortar

Code	Description	Unit	Quantity	Rate	Amount
2602 3.18 2201 9999 0123 0124 0115 0101	Details of cost for 1 cum. MATERIAL Common burnt clay F.P.S. (non modular) bricks class designation 7.5 Mud mortar Rate as per Item Number 3.18 of SH: Mortars Carriage of Bricks Sundries LABOUR Mason (brick layer) 1st class Mason (brick layer) 2nd class Coolie Bhisti TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 Cum. Say	1000 Nos cum 1000 Nos L.S. day day day day	0.494 0.25 0.494 2.73 0.36 0.36 1.37 0.2	4590.00 823.15 437.15 2.12 784.00 714.00 645.00 714.00	2267.46 205.79 215.95 5.79 282.24 257.04 883.65 142.80 4260.72 W 42.61 4303.32 X 604.62 4907.94 Y 736.19 5644.13 Z 56.44 5700.57 5700.55
	FOR DPA 30% LESS				**3990.385**

14.22 Providing and fixing 25 mm thick shutters for cup board etc. :

14.22.1 Panelled or panelled & glazed shutters :

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for shutter of cup- board 200x108cm = 2.16 sqm. MATERIAL Styles 4x200x8.0x2.5cm = 0.016 cum+ Rails Top rail 1x110.5x8.0x2.5cm = 0.0022cum+ Lock and bottom rails 2x110.5x8.0x2.5 cm = 0.0044 cum Panels 2x48x41x1.6cm = 0.006cum+ Sash bars 2x114x3.8x2.5cm = 0.0022cum+ 6x48x3.8x2.5cm = 0.003 cum+ Beading 16x92x1.4x1.2cm = 0.002cum Total = 0.0358 cum Add for wastage @ 10% = 0.00336 cum. Grand Total = 0.0394 cum = 39.40 cudm say 39 cudm				

14.22.1.1 Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.

Code	Description	Unit	Quantity	Rate	Amount

1186	Superior class teak wood such as Dandeli, Balarshah	10 cudm	3.90	1100.00	4290.00
2204	or Malabar in planks	cum	0.04	187.35	7.49
2406	Carriage of Timber	sqm	0.99	309.00	305.91
0608	Float glass sheet of nominal thickness 4 mm (weight	metre 100	4.00	39.00	156.00
0639	not less than 10kg/sqm). Fittings-	Nos day	1.20	40.00	48.00
0111	Nickel plated mild steel piono hinges 1 mm thick 25 mm	day day	2.40	784.00	1881.60
0119	wide	L.S.	0.18	714.00	128.52
0114	Bright finished or black enamelled mild steel screws 25		0.77	645.00	496.65
9999	mm		40.43	2.12	85.71
	LABOUR				7399.89 W
	Carpenter 1st class Glazier				74.00
	Beldar Sundries TOTAL				7473.88 X
	Add 1 % Water charges on "W" TOTAL				1050.08
	Add GST on "X" (multiplying factor 0.1405)				8523.97 Y
	TOTAL				1278.59
	Add 15% CPOH on "Y" TOTAL				9802.56 Z
	Add Cess @ 1% on "Z" Cost of 2.16 sqm.				98.03
	Cost of 1 sqm. Say				9900.59
					4583.60
					4583.60
	FOR DPA 30% LESS				**3208.52**

14.22.1.2 Ist class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for shutters of a cup- board (half glazed and half panelled) 200x108cm= 2.16 sqm. MATERIAL Styles 4x200x8.0x2.5cm = 0.016 cum+ Rails Top rail 1x110.5x8.0x2.5cm = 0.0022cum+ Lock and bottom rail 2x110.5x8.0x2.5cm = 0.0044 cum. Panels 2x48x41x1.6cm = 0.006cum+ Sash bars 2x114x3.8x2.5cm = 0.0022 cum+ 6x48x3.8x2.5cm = 0.003 cum+ Beading 16x92x1.4x1.2cm = 0.002cum Total = 0.0358				
1188	Add for wastage @ 10% = 0.0036 cum. Grand Total =	10 cudm	3.90	850.00	3315.00
2204	0.0394 cum = 39.40 cudm say 39 cudm	cum	0.04	187.35	7.49
2406	First class teak wood in planks Carriage of Timber	sqm	0.99	309.00	305.91
0608	Float glass sheet of nominal thickness 4 mm (weight	metre 100	4.00	39.00	156.00
0639	not less than 10kg/sqm). Fittings	Nos day	1.20	40.00	48.00
0111	Nickel plated mild steel piono hinges 1 mm thick 25 mm	day day	2.40	784.00	1881.60
0119	wide	L.S.	0.18	714.00	128.52
0114	Bright finished or black enamelled mild steel screws 25		0.77	645.00	496.65
9999	mm		40.43	2.12	85.71
	LABOUR				6424.89 W
	Carpenter 1st class Glazier				64.25
	Beldar Sundries TOTAL				6489.13 X
	Add 1 % Water charges on "W" TOTAL				911.72
	Add GST on "X" (multiplying factor 0.1405)				7400.86 Y
	TOTAL				1110.13
	Add 15% CPOH on "Y" TOTAL				8510.99 Z
	Add Cess @ 1% on "Z" Cost of 2.16 sqm.				85.11
	Cost of 1 sqm. Say				8596.10
					3979.67
					3979.65
	FOR DPA 30% LESS				**2785.76**

14.22.2 Glazed shutters :

14.22.2.1 Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for shutter of cup-board 200x108cm = 2.16 sqm. MATERIAL (i) Superior class teak wood				

1186	Superior class teak wood such as Dandeli,Balarshah or	10 cudm	4.20	1100.00	4620.00
2406	Malabar in planks Float glass sheet of nominal	sqm metre	1.27	309.00	392.43
0608	thickness 4 mm (weight not less than 10kg/sqm). Nickel	100 Nos	4.00	39.00	156.00
0639	plated mild steel piono hinges	10 Nos	1.20	40.00	48.00
0597	1 mm thick 25 mm wide 75x45x3.2 mm	100 Nos	0.20	49.00	9.80
0640	Bright finished or black enamelled mild steel screws 25	cum	0.08	35.00	2.80
2204	mm	day day	0.042	187.35	7.87
0156	Bright finished or black enamelled mild steel butt	day L.S.	1.83	749.00	1370.67
0119	hinges50x37x1.50 mm Bright finished or black		0.23	714.00	164.22
0114	enamelled mild steel screws 20 mm		0.77	645.00	496.65
9999	Carriage of Timber LABOUR		40.43	2.12	85.71
	Carpenter (average) Glazier				7354.15 W
	Beldar Sundries TOTAL				73.54
	Add 1 % Water charges on "W" TOTAL				7427.69 X
	Add GST on "X" (multiplying factor 0.1405)				1043.59
	TOTAL				8471.28 Y
	Add 15% CPOH on "Y" TOTAL				1270.69
	Add Cess @ 1% on "Z" Cost of 2.16 sqm.				9741.97 Z
	Cost of 1 sqm. Say				97.42
					9839.39
					4555.28
					4555.30
	FOR DPA 30% LESS				**3188.71**

14.22.2.2 Ist class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.

Code	Description	Unit	Quantity	Rate	Amount
1188	Details of cost for shutter of cup-board 200x108cm = 2.16 sqm. MATERIAL (i) Teak wood first class Styles : 4x200x9.5x2.5 cm = 0.019 cum Rails Top & intermediate rails 2x110.5x9.5x2.5 cm = 0.005 cum Lock and bottom rails 2x110.5x19.7x2.5 cm = 0.011 cum Beadings- 2x186.1x1.9x1.2cm = 0.001cum+ 4x171.70x1.9x1.2cm = 0.002cum. Total = 0.038 cum. Add for wastage @ 10% = 0.0038 cum. Grand Total = 0.0418 cum = 42 cudm First class teak wood in planks	10 cudm	4.20	850.00	3570.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
2406	Float glass sheet of nominal thickness 4 mm (weight	sqm metre	1.27	309.00	392.43
0608	not less than 10kg/sqm). Nickel plated mild steel piono	100 Nos	4.00	39.00	156.00
0639	hinges	10 Nos	1.20	40.00	48.00
0597	1 mm thick 25 mm wide 75x45x3.2 mm	100 Nos	0.20	49.00	9.80
0640	Bright finished or black enamelled mild steel screws 25	cum	0.08	35.00	2.80
2204	mm	day day	0.042	187.35	7.87
0156	Bright finished or black enamelled mild steel butt	day L.S.	1.83	749.00	1370.67
0119	hinges50x37x1.50 mm Bright finished or black		0.23	714.00	164.22
0114	enamelled mild steel screws 20 mm		0.77	645.00	496.65
9999	Carriage of Timber LABOUR		40.43	2.12	85.71
	Carpenter (average) Glazier				6304.15 W
	Beldar Sundries TOTAL				63.04
	Add 1 % Water charges on “W” TOTAL				6367.19 X
	Add GST on “X” (multiplying factor 0.1405)				894.59
	TOTAL				7261.78 Y
	Add 15% CPOH on “Y” TOTAL				1089.27
	Add Cess @ 1% on “Z” Cost of 2.16 sqm.				8351.05 Z
	Cost of 1 sqm. Say				83.51
					8434.56
					3904.89
					3904.90
	FOR DPA 30% LESS				**2733.43**

14.23 Providing and fixing plain jaffri door and window shutters including bright or/ and black enamelled M.S. butt hinges with necessary screws 35x10 mm laths placed 35 mm apart (frames to be paid separately), including fixing 50x12 mm beading complete with :
14.23.1 Second class teak wood

Code	Description	Unit	Quantity	Rate	Amount

1190 2204 9.41.1 0595	Details of cost of a jaffri shutter 176x86 cm = 1.51 sqm MATERIAL Teak wood 2nd class Styles 2x176x7.5x3.5 cm = 0.0092 cum Rails 3x86x7.5x3.5 = 0.0068 cum Total 0.0160 cum Add wastage @ 10 % =0.0016 cum Total = 0.0176 cum Say 18 cudm Second class teak wood in planks Carriage of Timber Palain Jaffri work Rate as per Item Number 9.41.1 of SH:Wood and PVC work Bright finished or black enamelled mild steel butt hinges 100x58x1.90 mm	10 cudm cum sqm 10 Nos	1.80 0.018 1.51 0.60	791.00 187.35 2622.20 80.00	1423.80 3.37 3959.52 A 48.00
0597 0637 0640 0112	Bright finished or black enamelled mild steel butt hinges50x37x1.50 mm Bright finished or black enamelled mild steel screws 40 mm Bright finished or black enamelled mild steel screws 20 mm LABOUR For making frame and fixing fitting Carpenter 2nd class TOTAL Add 1 % Water charges on "W-A" TOTAL Add GST on "X-A" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y-A" TOTAL Add Cess @ 1% on "Z-A" Cost of 1.51 sqm. Cost of 1 sqm. Say	10 Nos 100 Nos 100 Nos day	0.20 0.48 0.08 0.30	49.00 60.00 35.00 714.00	9.80 28.80 2.80 214.20 5690.29 W 17.31 5707.60 X 245.61 5953.21 Y 299.05 6252.26 Z 22.93 6275.19 4155.75 4155.75
	FOR DPA 30% LESS				**2909.025**

14.24 Providing and fixing brass curtain rods of wall thickness 1.25 mm with two brass brackets fixed with brass screws and wooden plugs etc. wherever necessary complete.

14.24.1 20 mm diameter.

Code	Description	Unit	Quantity	Rate	Amount
0444 0446 9999 9977 8.23 9999 9999	Detail of cost for 2 metre long MATERIAL Brass curtain rod 20 mm dia 1.25 mm thick Brass brackets (curtain rods) 20 mm Screws Carriage Wooden plugs including cutting brick work and fixing in cement mortar Rate as per item no 9.32 of SH : Wood work LABOUR Sundries TOTAL Add 1 % Water charges on “W-A” TOTAL Add GST on “X-A” (multiplying factor 0.1405) TOTAL Add 15% CPOH on “Y-A” TOTAL Add Cess @ 1% on “Z-A” Cost of 2 metres Cost of 1 metre Say	metre each L.S. L.S. each L.S. L.S.	2.00 2.00 2.73 1.56 2.00 2.73 1.56	140.00 45.00 2.12 2.12 35.50 2.12 2.12	280.00 90.00 5.79 3.31 71.00 A 5.79 3.31 459.19 W 3.88 463.07 X 55.09 518.16 Y 67.07 585.23 Z 5.14 590.37 295.19 295.20
	FOR DPA 30% LESS				**206.64**

14.24.2 25 mm diameter.

Code	Description	Unit	Quantity	Rate	Amount
0445	Detail of cost for 2 metre long MATERIAL	metre	2.00	190.00	380.00
0446	Brass curtain rod 25 mm dia	each L.S.	2.00	45.00	90.00
9999	1.25 mm thick	L.S.	2.73	2.12	5.79
9977	Brass brackets (curtain rods) 20 mm Screws	each L.S.	1.56	2.12	3.31
8.23	Carriage	L.S.	2.00	35.50	71.00 A 5.79
9999	Wooden plugs including cutting brick work and fixing		2.73	2.12	3.31
9999	in cement mortar Rate as per item no 9.32 of		1.56	2.12	559.19 W
	SH : Wood work LABOUR				4.88
	Sundries TOTAL				564.07 X
	Add 1 % Water charges on "W-A" TOTAL				69.28
	Add GST on "X-A" (multiplying factor 0.1405)				633.35 Y
	TOTAL				84.35
	Add 15% CPOH on "Y-A" TOTAL				717.70 Z
	Add Cess @ 1% on "Z-A" Cost of 2 metres				6.47
	Cost of 1 metre Say				724.17
					362.08
					362.10
	FOR DPA 30% LESS				**253.47**

14.25 Providing and fixing M.S. round or square bars with M.S. flats at required spacing in wooden frames of windows and clerestory windows.

Code	Description	Unit	Quantity	Rate	Amount
1003 1008 2205 9999 0103 0112	Details of cost for 33.67 kg Details of cost for window -140x110cm MATERIAL M.S. bar 16 mm dia 13x136 cm = 17.68 m @ 1.58 kg/m = 27.93 kg Add for wastage @ 10% =2.79 kg Total = 30.72 kg or 0.307 q Mild steel round bar above 12 mm dia M.S. flat 40x6mm 2x96cm = 192cm+ 1x110cm = 110cm = 302cm+ Add wastage @ 10% = 30cm Total = 332cm.@ 1.90 kg/m = 6.31 kg Say 0.063 q Flats upto 10 mm in thickness Carriage of Steel (0.307+0.063 = 0.37 q = 0.037 t) Sundries LABOUR Blacksmith 2nd class Carpenter 2nd class	quintal quintal tonne L.S. day day	0.307 0.063 0.037 26.91 0.35 0.20	4750.00 4850.00 145.72 2.12 714.00 714.00	1458.25 305.55 5.39 57.05 249.90 142.80
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0114	Beldar TOTAL	day	0.45	645.00	290.25
	Add 1 % Water charges on "W" TOTAL				2509.19 W
	Add GST on "X" (multiplying factor 0.1405)				25.09
	TOTAL				2534.28 X
	Add 15% CPOH on "Y" TOTAL				356.07
	Add Cess @ 1% on "Z"				2890.35 Y
	Cost of 33.67 kg.(5.74+27.93=33.67kg)				433.55
	Cost of 1 kg. Say				3323.90 Z
					33.24
					3357.14
					99.71
					99.70
	FOR DPA 30% LESS				**69.79**

14.26 Providing joists (karries) including hoisting, fixing in position and applying wood preservative on unexposed surface etc. complete with :

14.26.1 Sal wood

Code	Description	Unit	Quantity	Rate	Amount

1199	Details of cost for 300cudm. MATERIAL	10 cudm	30.60	600.00	18360.00
2204	Sal wood	cum	0.306	187.35	57.33
0112	10x0.1mx0.1mx3.0m = 0.30 cum. Or	day day	0.70	714.00	499.80
0114	= 300 cudm	day	1.45	645.00	935.25
0100	Add wastage @ 2% = 6.00 cudm. Total = 306 cudm.	sqm L.S.	0.70	714.00	499.80
13.57.1	Sal wood in scantling Carriage of Timber LABOUR		0.80	47.10	37.68 A
9999	Carpenter 2nd class Beldar		26.91	2.12	57.05
	Bandhani				20446.91 W
	Priming coat (Wood preservative) Rate as per item no				204.09
	13.57.1				20651.00 X
	SH : Finishing Sundries TOTAL				2896.17
	Add 1 % Water charges on "W-A" TOTAL				23547.17 Y
	Add GST on "X-A" (multiplying factor 0.1405)				3526.42
	TOTAL				27073.60 Z
	Add 15% CPOH on "Y-A" TOTAL				270.36
	Add Cess @ 1% on "Z-A" Cost of 300 cudm.				27343.96
	Cost of 1 cum. Say				91146.53
					91146.55
	FOR DPA 30% LESS				**63802.585**

14.26.2 Hollock wood

Code	Description	Unit	Quantity	Rate	Amount
2466	Details of cost for 300cudm. MATERIAL	10 cudm	30.60	357.00	10924.20
2204	Hollock wood in scantling 10x0.1mx0.1mx3.0m =	cum	0.306	187.35	57.33
0112	0.30 cum. Or	day day	0.70	714.00	499.80
0114	= 300 cudm	day	1.45	645.00	935.25
0100	Add wastage @ 2% = 6.00 cudm. Total = 306 cudm.	sqm L.S.	0.70	714.00	499.80
13.57.1	Hollock wood in scantling Carriage of Timber		0.80	47.10	37.68 A
9999	LABOUR		26.91	2.12	57.05
	Carpenter 2nd class Beldar				13011.11 W
	Bandhani				129.73
	Priming coat (Wood preservative) Rate as per item no				13140.84 X
	13.57.1				1840.99
	SH : Finishing Sundries TOTAL				14981.84 Y
	Add 1 % Water charges on "W-A" TOTAL				2241.62
	Add GST on "X-A" (multiplying factor 0.1405)				17223.46 Z
	TOTAL				171.86
	Add 15% CPOH on "Y-A" TOTAL				17395.32
	Add Cess @ 1% on "Z-A" Cost of 300 cudm.				57984.40
	Cost of 1 cum. Say				57984.40
	FOR DPA 30% LESS				**40589.08**

14.27 Providing and fixing bright finished brass single acting spring hinges with necessary brass screws etc. complete :

14.27.1 150 mm

Code	Description	Unit	Quantity	Rate	Amount
0389	Details of cost for 10 nos. MATERIAL	each 100	10.00	425.00	4250.00
0449	Brass single acting spring hinges 150 mm Brass	Nos L.S.	0.80	220.00	176.00
9977	screws 50 mm	day day	3.64	2.12	7.72
0111	Carriage of materials LABOUR		0.40	784.00	313.60
0114	Carpenter 1st class Beldar		0.20	645.00	129.00
	TOTAL				4876.32 W
	Add 1 % Water charges on "W" TOTAL				48.76
	Add GST on "X" (multiplying factor 0.1405)				4925.08 X
	TOTAL				691.97
	Add 15% CPOH on "Y" TOTAL				5617.05 Y
	Add Cess @ 1% on "Z" Cost of 10 hinges				842.56
	Cost of each Say				6459.61 Z
					64.60
					6524.21
					652.42
					652.40
	FOR DPA 30% LESS				**456.68**

14.27.2 125 mm

Code	Description	Unit	Quantity	Rate	Amount

0390 0449 9977 0111 0114	Details of cost for 10 nos. MATERIAL Brass single acting spring hinges 125 mm Brass screws 50 mm Carriage of materials LABOUR Carpenter 1st class Beldar TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 hinges Cost of each Say	each 100 Nos L.S. day day	10.00 0.80 3.64 0.40 0.20	285.00 220.00 2.12 784.00 645.00	2850.00 176.00 7.72 313.60 129.00 3476.32 W 34.76 3511.08 X 493.31 4004.39 Y 600.66 4605.04 Z 46.05 4651.10 465.11 465.10
	FOR DPA 30% LESS				**325.57**

14.27.3 100 mm

Code	Description	Unit	Quantity	Rate	Amount
0391 0450 9977 0111 0114	Details of cost for 10 nos. MATERIAL Brass single acting spring hinges 100 mm Brass screws 40 mm Carriage of materials LABOUR Carpenter 1st class Beldar TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 hinges Cost of each Say	each 100 Nos L.S. day day	10.00 0.80 3.64 0.40 0.20	250.00 170.00 2.12 784.00 645.00	2500.00 136.00 7.72 313.60 129.00 3086.32 W 30.86 3117.18 X 437.96 3555.14 Y 533.27 4088.42 Z 40.88 4129.30 412.93 412.95
	FOR DPA 30% LESS				**289.07**

14.28 Providing and fixing bright finished brass double acting spring hinges with necessary brass screws etc. complete :

14.28.1 150 mm

Code	Description	Unit	Quantity	Rate	Amount
0392 0449 9977 0111 0114	Details of cost for 10 nos. MATERIAL Brass double acting spring hinges 150 mm Brass screws 50 mm Carriage of materials LABOUR Carpenter 1st class Beldar TOTAL Add 1 % Water charges on “W” TOTAL Add GST on “X” (multiplying factor 0.1405) TOTAL Add 15% CPOH on “Y” TOTAL Add Cess @ 1% on “Z” Cost of 10 hinges Cost of each Say	each 100 Nos L.S. day day	10.00 0.80 3.64 0.40 0.20	480.00 220.00 2.12 784.00 645.00	4800.00 176.00 7.72 313.60 129.00 5426.32 W 54.26 5480.58 X 770.02 6250.60 Y 937.59 7188.19 Z 71.88 7260.07 726.01 726.00
	FOR DPA 30% LESS				**508.2**

14.28.2 125 mm

Code	Description	Unit	Quantity	Rate	Amount

0393	Details of cost for 10 nos. MATERIAL	each 100	10.00	400.00	4000.00
0449	Brass double acting spring hinges 125 mm	Nos L.S.	0.80	220.00	176.00
9977	Brass screws 50 mm Carriage of materials LABOUR	day day	3.64	2.12	7.72
0111	Carpenter 1st class Beldar		0.40	784.00	313.60
0114	TOTAL		0.20	645.00	129.00
	Add 1 % Water charges on "W" TOTAL				4626.32 W
	Add GST on "X" (multiplying factor 0.1405)				46.26
	TOTAL				4672.58 X
	Add 15% CPOH on "Y" TOTAL				656.50
	Add Cess @ 1% on "Z" Cost of 10 hinges				5329.08 Y
	Cost of each Say				799.36
					6128.44 Z
					61.28
					6189.72
					618.97
					618.95
	FOR DPA 30% LESS				**433.265**

14.28.3 100 mm

Code	Description	Unit	Quantity	Rate	Amount
0394	Details of cost for 10 nos. MATERIAL	each 100	10.00	390.00	3900.00
0450	Brass double acting spring hinges 100 mm	Nos L.S.	0.80	170.00	136.00
9977	Brass screws 40 mm Carriage of materials LABOUR	day day	3.64	2.12	7.72
0111	Carpenter 1st class Beldar		0.40	784.00	313.60
0114	TOTAL		0.20	645.00	129.00
	Add 1 % Water charges on "W" TOTAL				4486.32 W
	Add GST on "X" (multiplying factor 0.1405)				44.86
	TOTAL				4531.18 X
	Add 15% CPOH on "Y" TOTAL				636.63
	Add Cess @ 1% on "Z" Cost of 10 hinges				5167.81 Y
	Cost of each Say				775.17
					5942.98 Z
					59.43
					6002.41
					600.24
					600.25
	FOR DPA 30% LESS				**420.175**

14.29 Providing and fixing bright finished brass flush bolts with necessary brass screws etc. complete :

14.29.1 250 mm

Code	Description	Unit	Quantity	Rate	Amount
0404	Details of cost for 10 nos. MATERIAL	each 100	10.00	150.00	1500.00
0452	Brass flush bolt 250 mm Brass screws 25 mm	Nos L.S.	0.60	100.00	60.00
9977	Carriage of materials LABOUR	Day	3.64	2.12	7.72
0111	Carpenter 1st class TOTAL		0.20	784.00	156.80
	Add 1 % Water charges on "W" TOTAL				1724.52 W
	Add GST on "X" (multiplying factor 0.1405)				17.25
	TOTAL				1741.76 X
	Add 15% CPOH on "Y" TOTAL				244.72
	Add Cess @ 1% on "Z" Cost of 10 hinges				1986.48 Y
	Cost of each Say				297.97
					2284.45 Z
					22.84
					2307.30
					230.73
					230.75
	FOR DPA 30% LESS				**161.525**

14.29.2 150 mm

Code	Description	Unit	Quantity	Rate	Amount

0405 0452 9977 0111	Details of cost for 10 nos. MATERIAL Brass flush bolt 150 mm Brass screws 25 mm Carriage of materials LABOUR Carpenter 1st class TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 hinges Cost of each Say	each 100 Nos L.S. day	10.00 0.60 2.73 0.17	130.00 100.00 2.12 784.00	1300.00 60.00 5.79 133.28 1499.07 W 14.99 1514.06 X 212.73 1726.78 Y 259.02 1985.80 Z 19.86 2005.66 200.57 200.55
	FOR DPA 30% LESS				**140.385**

14.29.3 100 mm

Code	Description	Unit	Quantity	Rate	Amount
0406 0452 9977 0111	Details of cost for 10 nos. MATERIAL Brass flush bolt 100 mm Brass screws 25 mm Carriage of materials LABOUR Carpenter 1st class TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 hinges Cost of each Say	each 100 Nos L.S. day	10.00 0.60 2.73 0.17	90.00 100.00 2.12 784.00	900.00 60.00 5.79 133.28 1099.07 W 10.99 1110.06 X 155.96 1266.02 Y 189.90 1455.92 Z 14.56 1470.48 147.05 147.05
	FOR DPA 30% LESS				**102.935**

14.30 Providing and fixing 150 mm bright finished floor brass door stopper with rubber cushion, necessary brass screws etc. to suit shutter thickness complete

Code	Description	Unit	Quantity	Rate	Amount
0417	Details of cost for 10 nos. MATERIAL Brass 150 mm floor door stopper (0.357kg)	each	10.00	160.00	1600.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0450 9977 0111 9999	Brass screws 40 mm Carriage of material LABOUR Carpenter 1st class Sundries (wooden plugs including fixing in the floor) TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 Nos Cost of each Say	100 Nos L.S. day L.S.	0.40 2.73 0.07 6.37	170.00 2.12 784.00 2.12	68.00 5.79 54.88 13.50 1742.17 W 17.42 1759.59 X 247.22 2006.82 Y 301.02 2307.84 Z 23.08 2330.92 233.09 233.10
	FOR DPA 30% LESS				**163.17**

14.31 Providing and fixing bright finished brass hard drawn hooks and eyes :
14.31.1 300 mm

Code	Description	Unit	Quantity	Rate	Amount

0418	Details of cost for 10 nos. MATERIAL	10 Nos	1.00	600.00	600.00
9977	Brass hard drawn hooks and eyes 300 mm	L.S.	0.91	2.12	1.93
0111	Carriage of material LABOUR	day	0.06	784.00	47.04
	Carpenter 1st class TOTAL				648.97 W
	Add 1 % Water charges on “W” TOTAL				6.49
	Add GST on “X” (multiplying factor 0.1405)				655.46 X
	TOTAL				92.09
	Add 15% CPOH on “Y” TOTAL				747.55 Y
	Add Cess @ 1% on “Z” Cost of 10 Nos				112.13
	Cost of each Say				859.68 Z
					8.60
					868.28
					86.83
					86.85
	FOR DPA 30% LESS				**60.80**

14.31.2 250 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 nos. MATERIAL				
0419	Brass hard drawn hooks and eyes 250 mm	10 Nos	1.00	574.00	574.00
9977	Carriage of material	L.S.	0.91	2.12	1.93

Code	Description	Unit	Quantity	Rate	Amount
0111	LABOUR	day	0.06	784.00	47.04
	Carpenter 1st class TOTAL				622.97 W
	Add 1 % Water charges on “W” TOTAL				6.23
	Add GST on “X” (multiplying factor 0.1405)				629.20 X
	TOTAL				88.40
	Add 15% CPOH on “Y” TOTAL				717.60 Y
	Add Cess @ 1% on “Z” Cost of 10 hooks and eyes				107.64
	Cost of 1 hook and eye Say				825.24 Z
					8.25
					833.49
					83.35
					83.35
	FOR DPA 30% LESS				**58.345**

14.31.3 200 mm

Code	Description	Unit	Quantity	Rate	Amount
0420	Details of cost for 10 nos. MATERIAL	10 Nos	1.00	510.00	510.00
9977	Brass hard drawn hooks and eyes 200 mm	L.S.	0.91	2.12	1.93
0111	Carriage of material LABOUR	day	0.06	784.00	47.04
	Carpenter 1st class TOTAL				558.97 W
	Add 1 % Water charges on "W" TOTAL				5.59
	Add GST on "X" (multiplying factor 0.1405)				564.56 X
	TOTAL				79.32
	Add 15% CPOH on "Y" TOTAL				643.88 Y
	Add Cess @ 1% on "Z" Cost of 10 Nos				96.58
	Cost of each Say				740.46 Z
					7.40
					747.87
					74.79
					74.80
	FOR DPA 30% LESS				**52.36**

14.31.4 150 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 nos. MATERIAL				
0421	Brass hard drawn hooks and eyes 150 mm	10 Nos	1.00	400.00	400.00
9977	Carriage of material	L.S.	0.91	2.12	1.93

Code	Description	Unit	Quantity	Rate	Amount
0111	LABOUR	day	0.06	784.00	47.04
	Carpenter 1st class TOTAL				448.97 W
	Add 1 % Water charges on "W" TOTAL				4.49
	Add GST on "X" (multiplying factor 0.1405)				453.46 X
	TOTAL				63.71
	Add 15% CPOH on "Y" TOTAL				517.17 Y
	Add Cess @ 1% on "Z" Cost of 10 Nos				77.58
	Cost of each Say				594.75 Z
					5.95
					600.69
					60.07
					60.05
	FOR DPA 30% LESS				**42.035**

14.31.5	**100 mm**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0422	Details of cost for 10 nos. MATERIAL	10 Nos	1.00	345.00	345.00
9977	Brass hard drawn hooks and eyes 100 mm	L.S.	0.91	2.12	1.93
0111	Carriage of material LABOUR	day	0.06	784.00	47.04
	Carpenter 1st class TOTAL				393.97 W
	Add 1 % Water charges on "W" TOTAL				3.94
	Add GST on "X" (multiplying factor 0.1405)				397.91 X
	TOTAL				55.91
	Add 15% CPOH on "Y" TOTAL				453.82 Y
	Add Cess @ 1% on "Z" Cost of 10 Nos				68.07
	Cost of each Say				521.89 Z
					5.22
					527.11
					52.71
					52.70
	FOR DPA 30% LESS				**36.89**

14.32 Providing and fixing bright finished brass fan light pivot with necessary brass screws etc. complete.

Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0429	Details of cost for 10 nos. MATERIAL	10 Nos	1.00	168.00	168.00
0450	Brass fanlight pivot Brass screws 40 mm Carriage of	100 Nos	0.40	170.00	68.00
9977	material	L.S.	0.91	2.12	1.93
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0111	LABOUR	day	0.08	784.00	62.72
	Carpenter 1st class TOTAL				300.65 W
	Add 1 % Water charges on “W” TOTAL				3.01
	Add GST on “X” (multiplying factor 0.1405)				303.66 X
	TOTAL				42.66
	Add 15% CPOH on “Y” TOTAL				346.32 Y
	Add Cess @ 1% on “Z” Cost of 10 Nos				51.95
	Cost of each Say				398.27 Z
					3.98
					402.25
					40.22
					40.20
	FOR DPA 30% LESS				**28.14**

14.33 Providing and fixing 300 mm long bright finished brass chain with hook for fan light including necessary brass screws etc. complete.

Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**

0430 0452 9977 0111	Details of cost for 10 nos. MATERIAL Brass chain with hook for fan light catch Brass screws 25 mm Carriage of material LABOUR Carpenter 1st class TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 Nos Cost of each Say	each 100 Nos L.S. day	10.00 0.40 0.91 0.10	36.00 100.00 2.12 784.00	360.00 40.00 1.93 78.40 480.33 W 4.80 485.13 X 68.16 553.29 Y 82.99 636.29 Z 6.36 642.65 64.27 64.25
	FOR DPA 30% LESS				**44.98**

14.34 Providing and fixing bright finished brass quadrant stay 300 mm long with necessary brass screws etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
0427 0452 9977	Details of cost for 10 nos. MATERIAL Brass quadrant stays 300 mm Brass screws 25 mm Carriage of material	each 100 Nos L.S.	10.00 0.40 0.91	110.00 100.00 2.12	1100.00 40.00 1.93
0111	LABOUR Carpenter 1st class TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 quadrant stayes Cost of each Say	day	0.10	784.00	78.40 1220.33 W 12.20 1232.53 X 173.17 1405.70 Y 210.86 1616.56 Z 16.17 1632.72 163.27 163.25
	FOR DPA 30% LESS				**114.275**

14.35 Providing and fixing bright finished brass helical door spring (superior quality).

Code	Description	Unit	Quantity	Rate	Amount
0442 0449 0452 9977 0111 0114	Details of cost for 10 nos. MATERIAL Brass helical spring 150 mm Brass screws 50 mm Brass screws 25 mm Carriage of material LABOUR Carpenter 1st class Beldar TOTAL Add 1 % Water charges on “W” TOTAL Add GST on “X” (multiplying factor 0.1405) TOTAL Add 15% CPOH on “Y” TOTAL Add Cess @ 1% on “Z” Cost of 10 Nos Cost of each Say	each 100 Nos 100 Nos L.S. day day	10.00 0.40 0.20 3.84 0.40 0.20	290.00 220.00 100.00 2.12 784.00 645.00	2900.00 88.00 20.00 8.14 313.60 129.00 3458.74 W 34.59 3493.33 X 490.81 3984.14 Y 597.62 4581.76 Z 45.82 4627.58 462.76 462.75
	FOR DPA 30% LESS				**323.925**

14.36 Providing and fixing chromium plated brass butt hinges with necessary chromium plated brass screws etc. complete.

14.36.1 125x70x4 mm (ordinary type)

Code	Description	Unit	Quantity	Rate	Amount
0525 0585 9977	Details of cost for 10 nos. MATERIAL Chromium plated Brass butt hinges (light/ordinary) type 125x70x4 mm Chromium plated Brass screws 50 mm Carriage of material	10 Nos 100 Nos L.S.	1.00 1.00 3.64	805.00 300.00 2.12	805.00 300.00 7.72

0111	LABOUR	day day	0.14	784.00	109.76
0114	Carpenter 1st class Beldar		0.10	645.00	64.50
	TOTAL				1286.98 W
	Add 1 % Water charges on "W" TOTAL				12.87
	Add GST on "X" (multiplying factor 0.1405)				1299.85 X
	TOTAL				182.63
	Add 15% CPOH on "Y" TOTAL				1482.48 Y
	Add Cess @ 1% on "Z" Cost of 10 nos.				222.37
	Cost of each Say				1704.85 Z
					17.05
					1721.89
					172.19
					172.20
	FOR DPA 30% LESS				**120.54**

14.36.2 100x70x4 mm (ordinary type)

Code	Description	Unit	Quantity	Rate	Amount
0526	Details of cost for 10 nos. MATERIAL	10 Nos	1.00	690.00	690.00
0586	Chromium plated Brass butt hinges (light/ordinary)	100 Nos	0.80	290.00	232.00
9977	type 100x70x4 mm Chromium plated Brass screws 40	L.S.	3.64	2.12	7.72
0111	mm Carriage of material	day day	0.14	784.00	109.76
0114	LABOUR		0.10	645.00	64.50
	Carpenter 1st class Beldar				1103.98 W
	TOTAL				11.04
	Add 1 % Water charges on "W" TOTAL				1115.02 X
	Add GST on "X" (multiplying factor 0.1405)				156.66
	TOTAL				1271.68 Y
	Add 15% CPOH on "Y" TOTAL				190.75
	Add Cess @ 1% on "Z" Cost of 10 nos.				1462.43 Z
	Cost of each Say				14.62
					1477.05
					147.71
					147.70
	FOR DPA 30% LESS				**103.39**

14.36.3 75x65x4 mm (heavy type)

Code	Description	Unit	Quantity	Rate	Amount
0524 0587 9977	Details of cost for 10 nos. MATERIAL Chromium plated Brass butt hinges (heavy) type 75x65x4 .0 mm (200gms) Chromium plated Brass screws 30 mm Carriage of material	10 Nos 100 Nos L.S.	1.00 0.60 1.82	905.00 240.00 2.12	905.00 144.00 3.86
0111	LABOUR	day day	0.14	784.00	109.76
0114	Carpenter 1st class Beldar		0.10	645.00	64.50
	TOTAL				1227.12 W
	Add 1 % Water charges on "W" TOTAL				12.27
	Add GST on "X" (multiplying factor 0.1405)				1239.39 X
	TOTAL				174.13
	Add 15% CPOH on "Y" TOTAL				1413.52 Y
	Add Cess @ 1% on "Z" Cost of 10 nos.				212.03
	Cost of each Say				1625.55 Z
					16.26
					1641.81
					164.18
					164.20
	FOR DPA 30% LESS				**114.94**

14.36.4 75x40x2.5 mm (ordinary type)

Code	Description	Unit	Quantity	Rate	Amount
0527	Details of cost for 10 nos. MATERIAL	10 Nos	1.00	421.00	421.00
0587	Chromium plated Brass butt hinges (light/ordinary)	100 Nos	0.60	240.00	144.00
9977	type 75x40x2.5 mm Chromium plated Brass screws	L.S.	1.82	2.12	3.86
0111	30 mm Carriage of material	day day	0.14	784.00	109.76
0114	LABOUR		0.10	645.00	64.50
	Carpenter 1st class Beldar				743.12 W
	TOTAL				7.43
	Add 1 % Water charges on "W" TOTAL				750.55 X
	Add GST on "X" (multiplying factor 0.1405)				105.45
	TOTAL				856.00 Y
	Add 15% CPOH on "Y" TOTAL				128.40
	Add Cess @ 1% on "Z" Cost of 10 nos.				984.40 Z
	Cost of each Say				9.84
					994.25
					99.42
					99.40
	FOR DPA 30% LESS				**69.58**

14.36.5 50x40x2.5 mm (ordinary type)

Code	Description	Unit	Quantity	Rate	Amount
0528 0589 9977	Details of cost for 10 nos. MATERIAL Chromium plated Brass butt hinges (light/ordinary) type 50x40x2.5 mm Chromium plated Brass screws 20 mm Carriage of material	10 Nos 100 Nos L.S.	1.00 0.40 0.91	180.00 160.00 2.12	180.00 64.00 1.93

Code	Description	Unit	Quantity	Rate	Amount
0111	LABOUR Carpenter 1st class TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 nos. Cost of each Say	day	0.08	784.00	62.72 308.65 W 3.09 311.74 X 43.80 355.53 Y 53.33 408.86 Z 4.09 412.95 41.30 41.30
	FOR DPA 30% LESS				**28.91**

14.37 Providing and fixing 85x42 mm chromium plated brass pull bolt lock with necessary chromium plated brass screws, nuts, bolts and washers etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
2467 9988 0112	Details of cost for 10 Nos MATERIAL Chromium plated Brass pull bolt lock (locking bolt) of size 85 mmx42 mm with screws,bolts,nuts and washers complete Carriage of materials & sundries LABOUR Carpenter 2nd class TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 nos. Cost of each Say	each L.S. day	10.00 6.37 0.25	172.00 2.12 714.00	1720.00 13.50 178.50 1912.00 W 19.12 1931.12 X 271.32 2202.45 Y 330.37 2532.81 Z 25.33 2558.14 255.81 255.80
	FOR DPA 30% LESS				**179.06**

13.38 White washing with lime to give an even shade :
13.38.1 Old work (two or more coats)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0775	Dehradun white lime	quintal	0.02	600.00	12.00
9977	Carriage of lime	L.S.	0.52	2.12	1.10
	LABOUR				
0141	White Washer	day	0.11	714.00	78.54
0115	Coolie	day	0.06	645.00	38.70
9999	Indigo gum etc	L.S.	2.73	2.12	5.79
9999	Sundries ladders etc	L.S.	2.73	2.12	5.79
	TOTAL				141.92 W
	Add 1 % Water charges on "W"				1.42
	TOTAL				143.34 X
	Add GST on "X" (multiplying factor 0.1405)				20.14
	TOTAL				163.48 Y
	Add 15% CPOH on "Y"				24.52
	TOTAL				188.00 Z
	Add Cess @ 1% on "Z"				1.88
	Cost of 10.00 sqm				189.88
	Cost of 1.00 sqm				18.99
	Say				19.00
	FOR DPA 30% LESS				**13.30**

14.38.2 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				

0775	Dehradun white lime	quintal	0.01	600.00	6.00
9977	Carriage of lime	L.S.	0.52	2.12	1.10
	LABOUR				
0141	White Washer	day	0.07	714.00	49.98
0115	Coolie	day	0.03	645.00	19.35
9999	Indigo gum etc	L.S.	2.08	2.12	4.41

Code	Description	Unit	Quantity	Rate	Amount
9999	Sundries ladders etc	L.S.	2.73	2.12	5.79
	TOTAL				86.63 W
	Add 1 % Water charges on "W"				0.87
	TOTAL				87.50 X
	Add GST on "X" (multiplying factor 0.1405)				12.29
	TOTAL				99.79 Y
	Add 15% CPOH on "Y"				14.97
	TOTAL				114.76 Z
	Add Cess @ 1% on "Z"				1.15
	Cost of 10.00 sqm				115.91
	Cost of 1.00 sqm				11.59
	Say				11.60
	FOR DPA 30% LESS				**8.12**

14.39 Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	LABOUR				
0114	Beldar	day	0.09	645.00	58.05
0115	Coolie	day	0.04	645.00	25.80
0101	Bhisti	day	0.04	714.00	28.56
9999	Sundries such as sand paper and scrapper	L.S.	2.73	2.12	5.79
9999	Repair to scraches	L.S.	1.82	2.12	3.86
	TOTAL				122.06 W
	Add 1 % Water charges on "W"				1.22
	TOTAL				123.28 X
	Add GST on "X" (multiplying factor 0.1405)				17.32
	TOTAL				140.60 Y
	Add 15% CPOH on "Y"				21.09
	TOTAL				161.69 Z
	Add Cess @ 1% on "Z"				1.62
	Cost of 10 sqm.				163.30
	Cost of 1 sqm.				16.33
	Say				16.35
	FOR DPA 30% LESS				**11.45**

14.40 Distempering with dry distemper of approved brand and manufacture (one or more coats) and of required shade on old work to give an even shade. :

14.40.1 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate	Amount
0802	Details of cost for 10 sqm. MATERIAL				
9999	Acrylic distemper 1st quality , having VOC content	kilogram	1.00	40.00	40.00
9988	less than 50 grams/ litre Brushes, putty etc.	L.S.	0.52	2.12	1.10
	Sundries including carriage	L.S.	10.79	2.12	22.87

Code	Description	Unit	Quantity	Rate	Amount
	LABOUR				
0131	Painter	day	0.33	714.00	235.62
0115	Coolie	day	0.17	645.00	109.65
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				424.41 W
	Add 1 % Water charges on "W"				4.24
	TOTAL				428.65 X
	Add GST on "X" (multiplying factor 0.1405)				60.23

	TOTAL				488.87 Y
	Add 15% CPOH on "Y"				73.33
	TOTAL				562.21 Z
	Add Cess @ 1% on "Z"				5.62
	Cost of 10 sqm.				567.83
	Cost of 1 sqm.				56.78
	Say				56.80
	FOR DPA 30% LESS				**39.76**

14.42 Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	LABOUR				
0114	Beldar	day	0.11	645.00	70.95
0115	Coolie	day	0.05	645.00	32.25
0101	Bhisti	day	0.05	714.00	35.70
9999	Scrapper, sand paper etc.	L.S.	6.24	2.12	13.23
9999	Sundries including mortar to repair the surface	L.S.	1.82	2.12	3.86
	TOTAL				155.99 W
	Add 1 % Water charges on "W"				1.56
	TOTAL				157.55 X
	Add GST on "X" (multiplying factor 0.1405)				22.14
	TOTAL				179.68 Y
	Add 15% CPOH on "Y"				26.95
	TOTAL				206.63 Z
	Add Cess @ 1% on "Z"				2.07
	Cost of 10 sqm.				208.70
	Cost of 1 sqm.				20.87
	Say				20.85
	FOR DPA 30% LESS				**14.60**

14.43 Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :
14.43.1 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate	Amount
0845	Details of cost for 10 sqm. MATERIAL Roofing paint for iron sheets in red colour	litre	0.46	120.00	55.20
9977	Carriage	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Putty, brushes sand paper etc.	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				576.96 W
	Add 1 % Water charges on "W"				5.77
	TOTAL				582.73 X
	Add GST on "X" (multiplying factor 0.1405)				81.87
	TOTAL				664.60 Y
	Add 15% CPOH on "Y"				99.69
	TOTAL				764.29 Z
	Add Cess @ 1% on "Z"				7.64
	Cost of 10 sqm.				771.94
	Cost of 1 sqm.				77.19
	Say				77.20
	FOR DPA 30% LESS				**54.04**

14.44 Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture over and including a priming coat of ready mixed zinc chromate yellow primer on new work :
14.44.1 75 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 metres				
	Area=22/7 x0.0814m x30m =7.67 sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.41	120.00	49.20
9977	Carraige	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.18	714.00	128.52
0115	Coolie	day	0.18	645.00	116.10
9999	Brushes, sand paper etc	L.S.	8.19	2.12	17.36
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.73	100.00	73.00
9977	Carraige	L.S.	1.04	2.12	2.20
	LABOUR				
0131	Painter	day	0.41	714.00	292.74
0115	Coolie	day	0.41	645.00	264.45
9999	Putty, sand paper etc	L.S.	4.16	2.12	8.82
9999	Sundries	L.S.	6.24	2.12	13.23
9999	Wire brushes for cleaning	L.S.	4.42	2.12	9.37
9999	Extra for delays	L.S.	40.3	2.12	85.44
	TOTAL				1061.26 W
	Add 1 % Water charges on "W"				10.61
	TOTAL				1071.87 X
	Add GST on "X" (multiplying factor 0.1405)				150.60
	TOTAL				1222.47 Y
	Add 15% CPOH on "Y"				183.37
	TOTAL				1405.84 Z
	Add Cess @ 1% on "Z"				14.06
	Cost of 30.00 metres				1419.90
	Cost of 1.00 metre				47.33
	Say				47.35
	FOR DPA 30% LESS				**33.15**

14.45 Painting (one or more coats) on rain water, soil waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture on old work :

14.45.1 75 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 metres				
	Area=22/7 x0.0814m x30m =7.67 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.43	100.00	43.00
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.27	714.00	192.78
0115	Coolie	day	0.27	645.00	174.15
9999	Putty, sand paper etc	L.S.	4.16	2.12	8.82
9999	Sundries	L.S.	6.24	2.12	13.23
9999	Wire brushes for cleaning	L.S.	4.42	2.12	9.37
9999	Extra for delays	L.S.	26.91	2.12	57.05
	TOTAL				499.22 W
	Add 1 % Water charges on "W"				4.99
	TOTAL				504.22 X
	Add GST on "X" (multiplying factor 0.1405)				70.84
	TOTAL				575.06 Y
	Add 15% CPOH on "Y"				86.26
	TOTAL				661.32 Z
	Add Cess @ 1% on "Z"				6.61
	Cost of 30.00 metres				667.93
	Cost of 1.00 metre				22.26
	Say				22.25
	FOR DPA 30% LESS				**15.575**

14.45.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 metres				
	Area = 22/7x106.4 mmx30 m				
	= 10.032 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.57	100.00	57.00
9977	Carriage	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Putty, sand paper brushes etc.	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
9999	Wire brushes for cleaning	L.S.	5.33	2.12	11.30
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Extra for delay	L.S.	34.06	2.12	72.21
	TOTAL				659.24 W
	Add 1 % Water charges on "W"				6.59
	TOTAL				665.83 X
	Add GST on "X" (multiplying factor 0.1405)				93.55
	TOTAL				759.38 Y
	Add 15% CPOH on "Y"				113.91
	TOTAL				873.28 Z
	Add Cess @ 1% on "Z"				8.73
	Cost of 30.00 metres				882.02
	Cost of 1.00 metre				29.40
	Say				29.40
	FOR DPA 30% LESS				**20.58**

14.43.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 metres				
	Area = 22/7x157.2 mmx30 m				
	= 14.82 sqm				

Code	Description	Unit	Quantity	Rate	Amount
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.85	100.00	85.00
9977	Carriage	L.S.	0.65	2.12	1.38
	LABOUR				
0131	Painter	day	0.53	714.00	378.42
0115	Coolie	day	0.53	645.00	341.85
9999	Putty, sand paper brushes etc.	L.S.	8.06	2.12	17.09
9999	Sundries	L.S.	11.96	2.12	25.36
9999	Wire brushes for cleaning	L.S.	7.14	2.12	15.14
9999	Extra for delay	L.S.	40.30	2.12	85.44
	TOTAL				949.66 W
	Add 1 % Water charges on "W"				9.50
	TOTAL				959.16 X
	Add GST on "X" (multiplying factor 0.1405)				134.76
	TOTAL				1093.92 Y
	Add 15% CPOH on "Y"				164.09
	TOTAL				1258.01 Z
	Add Cess @ 1% on "Z"				12.58
	Cost of 30.00 metres				1270.59
	Cost of 1.00 metre				42.35
	Say				42.35
	FOR DPA 30% LESS				**29.65**

14.46 Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with aluminium paint of approved brand and manufacture over a priming coat of ready mixed zinc chromate yellow primer on new work :

14.46.1 75 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 metres Area=22/7 x0.0814m x30m =7.67 sqm				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.41	120.00	49.20
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.18	714.00	128.52
0115	Coolie	day	0.18	645.00	116.10
9999	Sundries	L.S.	8.19	2.12	17.36
	MATERIAL				
0826	Aluminium paint	litre	0.61	150.00	91.50
9977	Carriage	L.S.	1.04	2.12	2.20
9999	Putty, sand paper etc	L.S.	4.16	2.12	8.82
	LABOUR				
0131	Painter	day	0.41	714.00	292.74
0115	Coolie	day	0.41	645.00	264.45
9999	Sundries	L.S.	5.20	2.12	11.02
9999	Wire brushes for cleaning	L.S.	9.10	2.12	19.29
9999	Extra for delays	L.S.	44.85	2.12	95.08
	TOTAL				1097.12 W
	Add 1 % Water charges on "W"				10.97
	TOTAL				1108.09 X
	Add GST on "X" (multiplying factor 0.1405)				155.69
	TOTAL				1263.78 Y
	Add 15% CPOH on "Y"				189.57
	TOTAL				1453.35 Z
	Add Cess @ 1% on "Z"				14.53
	Cost of 30.00 metres				1467.88
	Cost of 1.00 metre				48.93
	Say				48.95
	FOR DPA 30% LESS				**34.27**

14.46.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 metres Area=22/7 x106.4x30m =10.032sqm				

	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.54	120.00	64.80
9977	Carriage	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.24	714.00	171.36
	0.18 x 10.032 / 7.67 = 0.24				
0115	Coolie	day	0.24	645.00	154.80
9999	Sundries	L.S.	10.79	2.12	22.87
	MATERIAL				
0826	Aluminium paint	litre	1.16	150.00	174.00
	0.61 x 10.032 / 7.67 = 0.80				
9977	Carriage	L.S.	1.43	2.12	3.03
9999	Putty, sand paper etc	L.S.	5.33	2.12	11.30
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
	0.41 x 10.032 / 7.67 = 0.54				
0115	Coolie	day	0.54	645.00	348.30
9999	Sundries	L.S.	6.76	2.12	14.33
9999	Wire brushes for cleaning	L.S.	11.96	2.12	25.36
9999	Extra for delays	L.S.	66.43	2.12	140.83
	TOTAL				1517.65 W
	Add 1 % Water charges on "W"				15.18
	TOTAL				1532.82 X
	Add GST on "X" (multiplying				
	factor 0.1405)				215.36
	TOTAL				1748.18 Y
	Add 15% CPOH on "Y"				262.23
	TOTAL				2010.41 Z
	Add Cess @ 1% on "Z"				20.10
	Cost of 30.00 metres				2030.52
	Cost of 1.00 metre				67.68
	Say				67.70
	FOR DPA 30% LESS				**47.39**

14.46.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 metres				
	Area=22/7 x157.12x30m =14.82 sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.80	120.00	96.00
9977	Carriage	L.S.	0.65	2.12	1.38
	LABOUR				
0131	Painter	Day	0.36	714.00	257.04
	0.18 x 14.82 / 7.67 = 0.36				
0115	Coolie	Day	0.36	645.00	232.20
9999	Sundries	L.S.	15.99	2.12	33.90
	MATERIAL				
0826	Aluminium paint	litre	1.72	150.00	258.00
	0.61 x 14.82 / 7.67 = 1.72				
9977	Carriage	L.S.	2.08	2.12	4.41
9999	Putty, sand paper etc	L.S.	7.93	2.12	16.81
	LABOUR				
0131	Painter	day	0.80	714.00	571.20
	0.41 x 14.82 / 7.67 = 0.80				
0115	Coolie	day	0.80	645.00	516.00
9999	Sundries	L.S.	10.01	2.12	21.22
9999	Wire brushes for cleaning	L.S.	17.81	2.12	37.76
9999	Extra for delays	L.S.	101.4	2.12	214.97
	TOTAL				2260.88 W
	Add 1 % Water charges on "W"				22.61
	TOTAL				2283.49 X
	Add GST on "X" (multiplying				
	factor 0.1405)				320.83
	TOTAL				2604.32 Y
	Add 15% CPOH on "Y"				390.65
	TOTAL				2994.97 Z

	Add Cess @ 1% on "Z"				29.95
	Cost of 30.00 metres				3024.92
	Cost of 1.00 metre				100.83
	Say				100.85
	FOR DPA 30% LESS				**70.60**

14.47 Painting (one or more coats) on rain water, soil waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour on old work :

14.47.1 75 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 metres				
	Area = 22/7x0.0814 mmx30 m				
	= 7.67 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.35	150.00	52.50
9999	Putty, sand paper etc.	L.S.	0.39	2.12	0.83
9977	Carriage	L.S.	2.08	2.12	4.41
	LABOUR				
0131	Painter	day	0.28	714.00	199.92
0115	Coolie	day	0.28	645.00	180.60
9999	Putty, sand paper brushes etc.	L.S.	4.16	2.12	8.82
9999	Sundries	L.S.	6.24	2.12	13.23
9999	Wire brushes for cleaning	L.S.	4.42	2.12	9.37
9999	Extra for delay	L.S.	26.91	2.12	57.05
	TOTAL				526.72 W
	Add 1 % Water charges on "W"				5.27
	TOTAL				531.99 X
	Add GST on "X" (multiplying factor 0.1405)				74.74
	TOTAL				606.74 Y
	Add 15% CPOH on "Y"				91.01
	TOTAL				697.75 Z
	Add Cess @ 1% on "Z"				6.98
	Cost of 30.00 metres				704.72
	Cost of 1.00 metre				23.49
	Say				23.50
	FOR DPA 30% LESS				**16.45**

14.47.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 metres				
	Area = 22/7x106.4 mmx30 m				
	= 10.032 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.46	150.00	69.00
9999	Putty, sand paper etc.	L.S.	0.52	2.12	1.10
9977	Carriage	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Putty, sand paper brushes etc.	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
9999	Wire brushes for cleaning	L.S.	5.33	2.12	11.30
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Extra for delay	L.S.	34.06	2.12	72.21
	TOTAL				677.02 W
	Add 1 % Water charges on "W"				6.77
	TOTAL				683.79 X
	Add GST on "X" (multiplying factor 0.1405)				96.07
	TOTAL				779.87 Y
	Add 15% CPOH on "Y"				116.98
	TOTAL				896.85 Z
	Add Cess @ 1% on "Z"				8.97
	Cost of 30.00 metres				905.82
	Cost of 1.00 metre				30.19

	Say				30.20
	FOR DPA 30% LESS				**21.14**

14.47.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 metres				
	Area = 22/7x157.2 mmx30 m				
	= 14.82 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.68	150.00	102.00
9999	Putty, sand paper etc.	L.S.	0.65	2.12	1.38
9977	Carriage	L.S.	3.90	2.12	8.27
	LABOUR				
0131	Painter	day	0.53	714.00	378.42
0115	Coolie	day	0.53	645.00	341.85
9999	Putty, sand paper brushes etc.	L.S.	7.93	2.12	16.81
9999	Sundries	L.S.	11.96	2.12	25.36
9999	Wire brushes for cleaning	L.S.	7.15	2.12	15.16
9999	Extra for delay	L.S.	40.30	2.12	85.44
	TOTAL				974.68 W
	Add 1 % Water charges on "W"				9.75
	TOTAL				984.42 X
	Add GST on "X" (multiplying factor 0.1405)				138.31
	TOTAL				1122.74 Y
	Add 15% CPOH on "Y"				168.41
	TOTAL				1291.15 Z
	Add Cess @ 1% on "Z"				12.91
	Cost of 30.00 metres				1304.06
	Cost of 1.00 metre				43.47
	Say				43.45
	FOR DPA 30% LESS				**30.42**

14.48 Painting with oil type wood preservative of approved brand and manufacture:
14.48.1 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0859	Oil type wood preservative	litre	0.81	130.00	105.30
9977	Carriage of material	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.11	714.00	78.54
0115	Coolie	day	0.11	645.00	70.95
9999	Brushes etc	L.S.	2.73	2.12	5.79
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				267.47 W
	Add 1 % Water charges on "W"				2.67
	TOTAL				270.14 X
	Add GST on "X" (multiplying factor 0.1405)				37.95
	TOTAL				308.10 Y
	Add 15% CPOH on "Y"				46.21
	TOTAL				354.31 Z
	Add Cess @ 1% on "Z"				3.54
	Cost of 10.00 sqm				357.85
	Cost of 1.00 sqm				35.79
	Say				35.80
	FOR DPA 30% LESS				**25.06**

14.49 Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade:
14.49.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0804	Premium plastic acrylic emulsion of				

	interior grade, having VOC content less				
	than 50 grams/ litre	litre	0.73	200.00	146.00
9999	Material for filling holes and cracks				
	(putty etc.)	L.S.	0.52	2.12	1.10
9977	Carriage of material	L.S.	5.33	2.12	11.30
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	8.06	2.12	17.09
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				679.06 W
	Add 1 % Water charges on "W"				6.79
	TOTAL				685.85 X
	Add GST on "X" (multiplying				
	factor 0.1405)				96.36
	TOTAL				782.21 Y
	Add 15% CPOH on "Y"				117.33
	TOTAL				899.55 Z
	Add Cess @ 1% on "Z"				9.00
	Cost of 10.00 sqm				908.54
	Cost of 1.00 sqm				90.85
	Say				90.85
	FOR DPA 30% LESS				**63.60**

14.50 Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :

14.50.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0833	Synthetic enamel paint in black or				
	chocolate shade	litre	0.70	175.00	122.50
9977	Carriage of paint and materials	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Putty	L.S.	2.73	2.12	5.79
9999	Brushes sand paper etc.	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				647.02 W
	Add 1 % Water charges on "W"				6.47
	TOTAL				653.49 X
	Add GST on "X" (multiplying				
	factor 0.1405)				91.81
	TOTAL				745.30 Y
	Add 15% CPOH on "Y"				111.80
	TOTAL				857.10 Z
	Add Cess @ 1% on "Z"				8.57
	Cost of 10.00 sqm				865.67
	Cost of 1.00 sqm				86.57
	Say				86.55
	FOR DPA 30% LESS				**60.59**

13.51 Painting with aluminium paint of approved brand and manufacture to give an even shade:

13.51.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.46	150.00	69.00
9977	Carriage of paint and material	L.S.	0.52	2.12	1.10
9999	Putty etc	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30

9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				593.52 W
	Add 1 % Water charges on "W"				5.94
	TOTAL				599.45 X
	Add GST on "X" (multiplying factor 0.1405)				84.22
	TOTAL				683.67 Y
	Add 15% CPOH on "Y"				102.55
	TOTAL				786.23 Z
	Add Cess @ 1% on "Z"				7.86
	Cost of 10.00 sqm				794.09
	Cost of 1.00 sqm				79.41
	Say				79.40
	FOR DPA 30% LESS				**55.58**

14.52 Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade :
14.52.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0827	Acid proof paint (chocolate or black)	litre	0.70	225.00	**157.50**
9977	Carriage of paint	L.S.	0.52	2.12	**1.10**
9999	Putty etc	L.S.	2.73	2.12	**5.79**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Brushes, sand paper etc	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**682.02 W**
	Add 1 % Water charges on "W"				**6.82**
	TOTAL				**688.84 X**
	Add GST on "X" (multiplying factor 0.1405)				**96.78**
	TOTAL				**785.62 Y**
	Add 15% CPOH on "Y"				**117.84**
	TOTAL				**903.46 Z**
	Add Cess @ 1% on "Z"				**9.03**
	Cost of 10.00 sqm				**912.50**
	Cost of 1.00 sqm				**91.25**
	Say				**91.25**
	FOR DPA 30% LESS				**63.875**

14.53 Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade :
14.53.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.57	100.00	**57.00**
9977	Carriage	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Putty, brushes, sand paper etc	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**575.73 W**
	Add 1 % Water charges on "W"				**5.76**
	TOTAL				**581.49 X**
	Add GST on "X" (multiplying factor 0.1405)				**81.70**
	TOTAL				**663.19 Y**
	Add 15% CPOH on "Y"				**99.48**
	TOTAL				**762.66 Z**
	Add Cess @ 1% on "Z"				**7.63**

	Cost of 10.00 sqm				**770.29**
	Cost of 1.00 sqm				**77.03**
	Say				**77.05**
	FOR DPA 30% LESS				**53.94**

14.54 French spirit polishing :

14.54.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
1000	Spirit	litre	0.98	48.00	**47.04**
0999	Shellac	kilogram	0.13	300.00	**39.00**
9977	Carriage of materials	L.S.	0.91	2.12	**1.93**
9999	Turpentine oil sand paper cotton/woolen cloth putty etc.	L.S.	10.79	2.12	**22.87**
9999	Linseed oil	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	1.76	714.00	**1256.64**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**1385.67 W**
	Add 1 % Water charges on "W"				**13.86**
	TOTAL				**1399.53 X**
	Add GST on "X" (multiplying factor 0.1405)				**196.63**
	TOTAL				**1596.16 Y**
	Add 15% CPOH on "Y"				**239.42**
	TOTAL				**1835.59 Z**
	Add Cess @ 1% on "Z"				**18.36**
	Cost of 10.00 sqm				**1853.94**
	Cost of 1.00 sqm				**185.39**
	Say				**185.40**
	FOR DPA 30% LESS				**129.78**

14.55 Polishing on wood work with ready made wax polish of approved brand and manufacture :

14.55.1 Old work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0855	Wax polish (ready made)	kilogram	0.25	230.00	**57.50**
9977	Caariage	L.S.	0.39	2.12	**0.83**
	LABOUR				
0131	Painter	day	0.40	714.00	**285.60**
0115	Coolie	day	0.40	645.00	**258.00**
9999	Soap, brushes, cloth etc	L.S.	4.16	2.12	**8.82**
9999	Sundries	L.S.	4.42	2.12	**9.37**
	TOTAL				**620.12 W**
	Add 1 % Water charges on "W"				**6.20**
	TOTAL				**626.32 X**
	Add GST on "X" (multiplying factor 0.1405)				**88.00**
	TOTAL				**714.32 Y**
	Add 15% CPOH on "Y"				**107.15**
	TOTAL				**821.46 Z**
	Add Cess @ 1% on "Z"				**8.21**
	Cost of 10.00 sqm				**829.68**
	Cost of 1.00 sqm				**82.97**
	Say				**82.95**
	FOR DPA 30% LESS				**58.07**

14.56 Re-lettering with black Japan paint of approved brand and manufacture.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 100 letters of 15 cm height				
	MATERIAL				
0829	Black Japan paint	litre	0.37	90.00	**33.30**

9977	Carriage	L.S.	0.52	2.12	**1.10**
	LABOUR				
0131	Painter	day	4.00	714.00	**2856.00**
0115	Coolie	day	1.00	645.00	**645.00**
9999	Painting brushes, turpentine, stencil etc	L.S.	7.15	2.12	**15.16**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**3567.65 W**
	Add 1 % Water charges on "W"				**35.68**
	TOTAL				**3603.32 X**
	Add GST on "X" (multiplying factor 0.1405)				**506.27**
	TOTAL				**4109.59 Y**
	Add 15% CPOH on "Y"				**616.44**
	TOTAL				**4726.03 Z**
	Add Cess @ 1% on "Z"				**47.26**
	Cost of 100 letters of 15 cm height				**4773.29**
	Cost per letter per cm height				**3.18**
	Say				**3.20**
	FOR DPA 30% LESS				**2.24**

14.57 Painting (one or more coats) with black Japan paint of approved brand and manufacture to give an even shade.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0829	Black Japan paint	litre	0.70	90.00	**63.00**
9977	Carriage	L.S.	0.52	2.12	**1.10**
9999	Putty etc.	L.S.	2.73	2.12	**5.79**
	LABOUR				
0131	Painter	day	0.36	714.00	**257.04**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Brushes, sand paper etc.	L.S.	5.33	2.12	**11.30**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**587.52 W**
	Add 1 % Water charges on "W"				**5.88**
	TOTAL				**593.39 X**
	Add GST on "X" (multiplying factor 0.1405)				**83.37**
	TOTAL				**676.76 Y**
	Add 15% CPOH on "Y"				**101.51**
	TOTAL				**778.28 Z**
	Add Cess @ 1% on "Z"				**7.78**
	Cost of 10.00 sqm				**786.06**
	Cost of 1sqm				**78.61**
	Say				**78.60**
	FOR DPA 30% LESS				**55.02**

14.58 Providing and fixing C.P. brass chain and rubber plug complete for sink or wash basin:

14.58.1 32 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 no.				
	MATERIAL				
1314	C.P.brass chain with 32 mm dia rubber plug	each	1.00	40.00	**40.00**
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	**17.09**
	TOTAL				**57.09 W**
	Add 1 % Water charges on "W"				**0.57**
	TOTAL				**57.66 X**
	Add GST on "X" (multiplying factor 0.1405)				**8.10**
	TOTAL				**65.76 Y**
	Add 15% CPOH on "Y"				**9.86**
	TOTAL				**75.62 Z**
	Add Cess @ 1% on "Z"				**0.76**

	Cost of each				**76.38**
	Say				**76.40**
	FOR DPA 30% LESS				**53.48**

14.58.2 40 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 no.				
	MATERIAL				
1315	C.P.brass chain with 40 mm dia				
	rubber plug	each	1.00	40.00	**40.00**
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	**17.09**
	TOTAL				**57.09 W**
	Add 1 % Water charges on "W"				**0.57**
	TOTAL				**57.66 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**8.10**
	TOTAL				**65.76 Y**
	Add 15% CPOH on "Y"				**9.86**
	TOTAL				**75.62 Z**
	Add Cess @ 1% on "Z"				**0.76**
	Cost of each				**76.38**
	Say				**76.40**
	FOR DPA 30% LESS				**53.48**

14.59 Distempering with 1st quality acrylic distemper (ready made) having VOC content less than 50 gm per ltr. of approved manufacturer and of required shade and colour complete. as per manufacturer's specification.

14.59.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm MATERIAL				
0802	Acrylic distemper 1st quality , having VOC content less than 50 grams/ litre	kilogram	1.00	40.00	**40.00**
9999	Brushes, putty etc	L.S.	0.52	2.12	**1.10**
9988	Sundries including carriage of material	L.S.	10.76	2.12	**22.81**
	LABOUR				
0131	Painter	day	0.22	714.00	**157.08**
0114	Beldar	day	0.22	645.00	**141.90**
9999	Sundries	L.S.	7.15	2.12	**15.16**
	TOTAL				**378.05 W**
	Add 1 % Water charges on "W"				**3.78**
	TOTAL				**381.83 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**53.65**
	TOTAL				**435.48 Y**
	Add 15% CPOH on "Y"				**65.32**
	TOTAL				**500.80 Z**
	Add Cess @ 1% on "Z"				**5.01**
	Cost of 10.00 sqm				**505.81**
	Cost of 1.00 sqm				**50.58**
	Say				**50.60**
	FOR DPA 30% LESS				**35.42**

14.60 Finishing walls with water proofing cement paint of required shade :

14.60.1 Old work (one or more coats applied @ 2.20 kg/10 sqm) over priming coat of primer applied @ 0.80 litrs/10 sqm complete including cost of Priming coat.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0851	Water proofing cement paint	kilogram	2.20	38.00	83.60
8508	Primer for cement paint	litre	0.80	90.00	72.00
9977	Carriage of material	L.S.	1.56	2.12	3.31
	LABOUR				
0131	Painter	day	0.46	714.00	328.44
0115	Coolie	day	0.23	645.00	148.35
0101	Bhisti	day	0.05	714.00	35.70
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16

9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				703.64 W
	Add 1 % Water charges on "W"				7.04
	TOTAL				710.68 X
	Add GST on "X" (multiplying factor 0.1405)				99.85
	TOTAL				810.53 Y
	Add 15% CPOH on "Y"				121.58
	TOTAL				932.11 Z
	Add Cess @ 1% on "Z"				9.32
	Cost of 10.00 sqm				941.43
	Cost of 1.00 sqm				94.14
	Say				94.15
	FOR DPA 30% LESS				**65.91**

14.60.2 Old work (one or more coats @ 2.20 kg/10 sqm) complete.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0851	Water proofing cement paint	kilogram	2.20	38.00	83.60
9977	Carriage of material	L.S.	1.10	2.12	2.33
	LABOUR				
0131	Painter	day	0.35	714.00	249.90
0115	Coolie	day	0.12	645.00	77.40
0101	Bhisti	day	0.05	714.00	35.70
9999	Brushes, sand paper etc	L.S.	3.15	2.12	6.68
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				472.70 W
	Add 1 % Water charges on "W"				4.73
	TOTAL				477.42 X
	Add GST on "X" (multiplying factor 0.1405)				67.08
	TOTAL				544.50 Y
	Add 15% CPOH on "Y"				81.68
	TOTAL				626.18 Z
	Add Cess @ 1% on "Z"				6.26
	Cost of 10.00 sqm				632.44
	Cost of 1.00 sqm				63.24
	Say				63.25
	FOR DPA 30% LESS				**44.28**

14.61 Finishing walls with textured exterior paint of required shade :

14.61.1 Old work (Two or more coats on existing cement paint surface applied @ 3.28 ltr/10 sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8507	Textured exterior paint	litre	3.28	280.00	**918.40**
9977	Carriage of material	L.S.	1.56	2.12	**3.31**
	LABOUR				
0131	Painter	day	0.46	714.00	**328.44**
0115	Coolie	day	0.23	645.00	**148.35**
9999	Brushes, sand paper etc	L.S.	7.15	2.12	**15.16**
9999	Sundries	L.S.	8.06	2.12	**17.09**
	TOTAL				**1430.74 W**
	Add 1 % Water charges on "W"				**14.31**
	TOTAL				**1445.05 X**
	Add GST on "X" (multiplying factor 0.1405)				**203.03**
	TOTAL				**1648.08 Y**
	Add 15% CPOH on "Y"				**247.21**
	TOTAL				**1895.29 Z**
	Add Cess @ 1% on "Z"				**18.95**
	Cost of 10.00 sqm				**1914.24**
	Cost of 1.00 sqm				**191.42**

	Say				**191.40**
	FOR DPA 30% LESS				**133.98**

14.61.2 Old work (One or more coats) applied @ 1.82 ltr/10 sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8507	Textured exterior paint	litre	1.82	280.00	509.60
9977	Carriage of material	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.33	714.00	235.62
0115	Coolie	day	0.17	645.00	109.65
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				888.22 W
	Add 1 % Water charges on "W"				8.88
	TOTAL				897.10 X
	Add GST on "X" (multiplying factor 0.1405)				126.04
	TOTAL				1023.14 Y
	Add 15% CPOH on "Y"				153.47
	TOTAL				1176.61 Z
	Add Cess @ 1% on "Z"				11.77
	Cost of 10.00 sqm				1188.38
	Cost of 1.00 sqm				118.84
	Say				118.85
	FOR DPA 30% LESS				**83.20**

14.62 Finishing walls with Acrylic Smooth exterior paint of required shade :

14.62.1 Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8505	Acrylic exterior paint	litre	1.67	200.00	334.00
9977	Carriage of material	L.S.	0.91	2.12	1.93
	LABOUR				
0131	Painter	day	0.46	714.00	328.44
0115	Coolie	day	0.23	645.00	148.35
9999	Brushes, sand paper etc	L.S.	4.81	2.12	10.20
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				834.22 W
	Add 1 % Water charges on "W"				8.34
	TOTAL				842.56 X
	Add GST on "X" (multiplying factor 0.1405)				118.38
	TOTAL				960.94 Y
	Add 15% CPOH on "Y"				144.14
	TOTAL				1105.08 Z
	Add Cess @ 1% on "Z"				11.05
	Cost of 10.00 sqm				1116.13
	Cost of 1.00 sqm				111.61
	Say				111.60
	FOR DPA 30% LESS				**78.12**

14.62.2 Old work (One or more coat applied @ 0.90 ltr/10 sqm).

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8505	Acrylic exterior paint	litre	0.90	200.00	180.00
9977	Carriage of material	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.33	714.00	235.62
0115	Coolie	day	0.17	645.00	109.65
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				558.62 W

	Add 1 % Water charges on "W"				5.59
	TOTAL				564.20 X
	Add GST on "X" (multiplying factor 0.1405)				79.27
	TOTAL				643.47 Y
	Add 15% CPOH on "Y"				96.52
	TOTAL				740.00 Z
	Add Cess @ 1% on "Z"				7.40
	Cost of 10.00 sqm				747.40
	Cost of 1.00 sqm				74.74
	Say				74.75
	FOR DPA 30% LESS				**52.33**

14.63 Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade

14.63.1 Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8506	Premium Acrylic exterior paint	litre	1.43	210.00	300.30
9977	Carriage of material	L.S.	1.04	2.12	2.20
	LABOUR				
0131	Painter	day	0.46	714.00	328.44
0115	Coolie	day	0.23	645.00	148.35
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				811.54 W
	Add 1 % Water charges on “W”				8.12
	TOTAL				819.66 X
	Add GST on “X” (multiplying factor 0.1405)				115.16
	TOTAL				934.82 Y
	Add 15% CPOH on “Y”				140.22
	TOTAL				1075.04 Z
	Add Cess @ 1% on “Z”				10.75
	Cost of 10.00 sqm				1085.79
	Cost of 1.00 sqm				108.58
	Say				108.60
	FOR DPA 30% LESS				**76.02**

14.63.2 Old work (one or more coats applied @ 0.83 ltr/10 sqm).

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
8506	Premium Acrylic exterior paint	litre	0.83	210.00	174.30
9977	Carriage of material	L.S.	0.91	2.12	1.93
	LABOUR				
0131	Painter	day	0.33	714.00	235.62
0115	Coolie	day	0.17	645.00	109.65
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				553.74 W
	Add 1 % Water charges on "W"				5.54
	TOTAL				559.28 X
	Add GST on "X" (multiplying factor 0.1405)				78.58
	TOTAL				637.86 Y
	Add 15% CPOH on "Y"				95.68
	TOTAL				733.54 Z
	Add Cess @ 1% on "Z"				7.34
	Cost of 10.00 sqm				740.88
	Cost of 1.00 sqm				74.09
	Say				74.10
	FOR DPA 30% LESS				**51.87**

14.64 Varnishing with varnish of approved brand and manufacture:

14.64.1 One or more coats with copal varnish

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0857	Superior copal varnish	litre	0.70	115.00	80.50
9977	Carriage	L.S.	0.52	2.12	1.10
9999	Repair to the surface	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				593.72 W
	Add 1 % Water charges on "W"				5.94
	TOTAL				599.65 X
	Add GST on "X" (multiplying				
	factor 0.1405)				84.25
	TOTAL				683.91 Y
	Add 15% CPOH on "Y"				102.59
	TOTAL				786.49 Z
	Add Cess @ 1% on "Z"				7.86
	Cost of 10.00 sqm				794.36
	Cost of 1.00 sqm				79.44
	Say				79.45
	FOR DPA 30% LESS				**55.62**

14.62.2 One or more coats with spar varnish

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	MATERIAL				
0858	Superior spar varnish	litre	0.75	115.00	86.25
9977	Carriage	L.S.	0.52	2.12	1.10
9999	Repair etc	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	2.73	2.12	5.79
9999	Sundries	L.S.	4.16	2.12	8.82
	TOTAL				596.99 W
	Add 1 % Water charges on "W"				5.97
	TOTAL				602.96 X
	Add GST on "X" (multiplying				
	factor 0.1405)				84.72
	TOTAL				687.67 Y
	Add 15% CPOH on "Y"				103.15
	TOTAL				790.82 Z
	Add Cess @ 1% on "Z"				7.91
	Cost of 10.00 sqm				798.73
	Cost of 1.00 sqm				79.87
	Say				79.85
	FOR DPA 30% LESS				**55.895**

14.65 Melamine polishing on wood work (one or more coat).

Code	Description	Unit	Quantity	Rate ₹	₹Amount
	Detail of cost for 10 sqm				
	MATERIAL				
7241	Melamine polish	litre	0.65	300.00	195.00
0006	Hire charges of Spraying machine				
	including				
	electric charges	day	0.78	250.00	195.00
9988	Carriage charge of Machine & Marerial	L.S.	4.42	2.12	9.37
	LABOUR				
0131	Painter	day	0.35	714.00	249.90
0114	Beldar	day	0.35	645.00	225.75
9999	Sundries	L.S.	4.42	2.12	9.37
	TOTAL				884.39 W

	Add 1 % Water charges on "W"				8.84
	TOTAL				893.23 X
	Add GST on "X" (multiplying factor 0.1405)				125.50
	TOTAL				1018.73 Y
	Add 15% CPOH on "Y"				152.81
	TOTAL				1171.54 Z
	Add Cess @ 1% on "Z"				11.72
	Cost of 10.00 sqm				1183.26
	Cost of 1.00 sqm				118.33
	Say				118.35
	FOR DPA 30% LESS				**82.85**

14.67 Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding. Note: - This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done.

Code	Description	Unit	Quantity	Rate	Amount
14.72X	Details of cost for area 22.5m x 9.0m	each	1.00	7911.85	7911.85
2205	=202.5 sqm	tonne	6.054	145.72	882.19
0116	Rate as per Item No.14.72X of SH:Repairs to	day day	15.50	784.00	12152.00
0114	Buildings Carriage of Steel	L.S.	31.00	645.00	19995.00
9999	40mm dia MS pipe = 3765.42 kg 25mm spigot = 123.98		1035	2.12	2194.20
	kg				43135.24 W
	Nuts & bolts = 37.80 kg				431.35
	Clamp = 120 nos @ 1.00kg each				43566.59 X
	= 120.00 kg				6121.11
	Challies = 90 nos @ 15.00kg each				49687.70 Y
	= 1350.00 kg				7453.15
	Cup locks = 1314 nos @ 0.50kg each				57140.85 Z
	= 657.00 kg				571.41
	Total = 6054.20 kg = 6.054 tonne LABOUR				57712.26
	Fitter (grade 1) Beldar Sundries TOTAL				285.00
	Add 1 % Water charges on "W" TOTAL				285.00
	Add GST on "X" (multiplying factor 0.1405)				
	TOTAL				
	Add 15% CPOH on "Y" TOTAL				
	Add Cess @ 1% on "Z" Cost of 202.50 sqm.				
	FOR DPA 30% LESS				**199.50**

14.68 Providing and fixing bright finished brass casement window fasteners or peg stays to windows/ ventilators with necessary welding and machine screws etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 nos (10 x 0.20 = 2.00 kg)	each L.S.			
0423	MATERIAL		10.00	45.00	450.00
9999	Brass casement window fastener Fixing charges including welding and materials etc.		125.58	2.12	266.23
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**

Code	Description	Unit	Quantity	Rate	Amount
9977	Carriage of materials TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 2.00kg window fasteners Cost of 1 kg window fastener Say	L.S.	3.64	2.12	7.72 723.95 W 7.24 731.19 X 102.73 833.92 Y 125.09 959.01 Z 9.59 968.60 484.30 484.30
	FOR DPA 30% LESS				**339.01**

14.69 Providing and fixing 14 mm bright finished brass spring catch to steel centre hung ventilators with necessary welding and machine screws etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
0428 9999 9977	Details of cost for 10 nos MATERIAL Brass fanlight catch Fixing charges including welding and materials etc. Carriage of materials TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 window fasteners Cost of each Say	10 Nos L.S. L.S.	1.00 125.58 3.64	170.00 2.12 2.12	170.00 266.23 7.72 443.95 W 4.44 448.39 X 63.00 511.38 Y 76.71 588.09 Z 5.88 593.97 59.40 59.40
	FOR DPA 30% LESS				**41.58**

14.70 Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge.

Code	Description	Unit	Quantity	Rate	Amount
0772	Details of cost for 10 sqm MATERIAL White cement based polymer modified self curing compound in powder form i/c 2% wastage	kg	125.00	15.00	1875.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9977 0155 0114 0115 9999	Carriage of white cement based polymer modified self curing compound in powder form LABOUR Mason (average) Beldar Coolie Scaffolding and sunderies TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 sqm Cost of 1 sqm Say	L.S. day day day L.S.	21.10 1.21 0.54 1.29 15.21	2.12 749.00 645.00 645.00 2.12	44.73 906.29 348.30 832.05 32.25 4038.62 W 40.39 4079.00 X 573.10 4652.10 Y 697.82 5349.92 Z 53.50 5403.42 540.34 540.35
	FOR DPA 30% LESS				**378.25**

14.70A Cleaning of terrace/loft water storage tank (inside surface area) upto 2000 litre capacity at all heights with coconut brushes, duster etc., removal of silt, rubbish from the tank and cleaning the tank with fresh water disinfecting with bleaching powder @ 0.5gm per litre capacity of tank including marking the date of cleaning on the side of tank body with the help of stencil and paint and disposing of malba all complete as per direction of Engineer-in-Charge. (The old date already written on tank should be removed with paint remover or black paint and if date is not written with the stencil or old date is not removed deduction will be made @ Rs. 0.10 per litre) (if during cleaning any GI fittings or ball cock is damaged that is to be repaired by contractor at his own cost and nothing extra will be paid on this account)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 tanks 1 tank is of 500 litres capacity i.e. 5000 litres MATERIAL				
1301 2264 9999 0117	Bleaching powder Carriage of Rubbish (asuming 0.040m depth of silt) Marking with paint i/c removal of existing markings LABOUR Assistant Fitter or 2nd class Fitter for opening ball cock wheel valve and other fittings	quintal cum L.S. day	0.025 0.25 30.00 1.00	1800.00 163.93 2.12 714.00	45.00 40.98 63.60 714.00
0114	Beldar for cleaning disinfecting etc TOTAL Add 1 % Water charges on “W” TOTAL Add GST on “X” (multiplying factor 0.1405) TOTAL Add 15% CPOH on “Y” TOTAL Add Cess @ 1% on “Z” Cost of 5000 litres Cost of 1 litre Say	day	1.00	645.00	645.00 1508.58 W 15.09 1523.67 X 214.08 1737.74 Y 260.66 1998.41 Z 19.98 2018.39 0.40 0.40
	FOR DPA 30% LESS				**0.28**

14.71 Cleaning and desilting of gully trap chamber, including removal of rubbish mixed with earth etc. and disposal of same, all as per the direction of Engineer-in- charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0129 9999	Details of cost for 10 Nos. LABOUR Sewerman T & P Bamboo, bucket, whell barrow etc. TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 nos Cost of each Say	day L.S.	1.00 11.20	645.00 2.12	645.00 23.74 668.74 W 6.69 675.43 X 94.90 770.33 Y 115.55 885.88 Z 8.86 894.74 89.47 89.45
	FOR DPA 30% LESS				**62.615**

14.72 Cleaning of chocked sewer line by diesel running vehicle mounting hydraulic operated high pressure suction cum jetting sewer cleaning machine fitted with pump having 4000 litres suction capacity and 6000 litres water jetting tank capacity including skilled operator, supervising engineer etc. for cleaning and partial desilting of manholes and dechocking of sewer lines. Dechocking and flushing of sewer line from one manhole to another by high pressure jetting system of 2200 PSI for sewer line from 150mm dia upto 300mm

Code	Description	Unit	Quantity	Rate	Amount
9999 8500	Details of Cost for 208 metres MATERIAL Soap, brush, cloths & sundries Water for jetting / blowback	L.S. 1000 litre	345.00 0.002	2.12 1500.00	731.40 3.00

0087 0139 0160	Machineries Hire Charges of Suction Jeting machine 2200 PSI machine i/c POL and operator LABOUR Skilled Beldar (for floor rubbing etc.) Technician TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 208 metres Cost of 1.00 metre Say	day day day	1.00 4.00 1.00	40000.00 714.00 853.00	40000.00 2856.00 853.00 44443.40 W 444.43 44887.83 X 6306.74 51194.57 Y 7679.19 58873.76 Z 588.74 59462.50 285.88 285.90
	FOR DPA 30% LESS				**200.13**

14.73 Cleaning of under ground sump, Over Head R.C.C. Tank (independent staging) including disposal of slit and rubbish, all as per direction of Engineer-in-Charge. The cleaning shall consist following operations:-

(i) Tank shall be emptied of water by pumping & bottom shall be cleaned of silt and other deposits.

(ii) Entire surface area of the sump shall then scrubbed thoroughly with wire brush etc. and pressure washed with water.

(iii) Chlorination of RCC internal surface by liquid chlorine.

Code	Description	Unit	Quantity	Rate	Amount
0011 0114 0114 0115 0101 9999	Let a underground tank of capacity 272000 litre or 272 KL and area of tank is 570sqm (a) Dewater and slit cleaning Considering through pumping 20% of water to be lifted, water discharge =(272 x 20/100=54.40KL) Cost of pumping water with pump of capacity 4000 litres per hours , = (54.4/ 4 =13.6 hours = @ 8 hours/ day = 1.7 day) Hire charges of Pump set of capacity 4000 litres/hour Beldar (b) Scrabing the internal surface of tank Beldar Coolie Bhisti Sundries (c) Bleaching	day day day day day L.S.	1.70 10.88 5.13 2.28 2.28 142.50	700.00 645.00 645.00 645.00 714.00 2.12	1190.00 7017.60 3308.85 1470.60 1627.92 302.10
1301 0006 0138 0058 0114 0085 0114	Bleaching powder Hire charges of Spraying machine including electric charges Sprayer (for bitumen, tar etc.) (d) Air jetting Air compressor Beldar (e) Ultra Violet Radiation Using cost of Ultra Violet Radiation tube Beldar TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 570 sqm Cost of 1 sqm Say	quintal day day hour day hour day	0.57 14.25 14.25 2.00 0.25 0.50 0.0625	1800.00 250.00 714.00 200.00 645.00 190.00 645.00	1026.00 3562.50 10174.50 400.00 161.25 95.00 40.31 30376.63 W 303.77 30680.40 X 4310.60 34990.99 Y 5248.65 40239.64 Z 402.40 40642.04 71.30 71.30
	FOR DPA 30% LESS				**49.91**

14.74 Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace including shifting at ground level as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount

0117	Details of cost for 1 No LABOUR	day day	0.10	714.00	71.40
0114	For disconnecting & dismantling of existing W/s line	day L.S.	0.10	645.00	64.50
0114	of water storage tanks on terrace of Qtrs.		0.20	645.00	129.00
9999	Assistant Fitter or 2nd class Fitter Beldar		1.10	2.12	2.33
	For Bringing the tank at Ground Level Beldar				267.23 W
	Sundries TOTAL				2.67
	Add 1 % Water charges on "W" TOTAL				269.90 X
	Add GST on "X" (multiplying factor 0.1405)				37.92
	TOTAL				307.83 Y
	Add 15% CPOH on "Y" TOTAL				46.17
	Add Cess @ 1% on "Z" Cost for each				354.00 Z
	Say				3.54
					357.54
					357.55
	FOR DPA 30% LESS				**250.285**

14.75 Providing & fixing White vitreous china water closet squatting pan (Indian type) along with "S" or "P" trap including dismantling of old WC seat and "S" or "P" trap at site complete with all operations including all necessary materials, labour and disposal of dismantled material i/c malba, all complete as per the direction of Engineer-in charge.

14.75.1 Long pattern W.C Pan of size 580x440 mm

Code	Description	Unit	Quantity	Rate	Amount
1953	Details of cost for 1 no. MATERIAL	each pair	1.00	475.00	475.00
1970	Vitreous china Indian type W.C. pan size 580 mm	each L.S.	1.00	103.00	103.00
1890	Vitreous china foot rests 250x125x25 mm Centrifugally	L.S.	1.00	325.00	325.00
9999	sand cast (spun) S&S	kg	13.36	2.12	28.32
9977	"P" or "S" trap	day day	13.52	2.12	28.66
1880	Cement sand & grit etc. Carriage of materials Less for	day day	-2.00	25.00	-50.00
0129	Dismantled "P" or "S" trap scrap (app. Wt 2 kg.)		0.05	645.00	32.25
0114	LABOUR		0.20	645.00	129.00
0126	(a) For dismantling WC seat and P or S trap		0.80	784.00	627.20
0114	Sewerman Beldar		0.80	645.00	516.00
	(b) For Fixing WC seat and "P" or "S" trap Mason 1st				2214.44 W
	class				22.14
	Beldar TOTAL				2236.58 X
	Add 1 % Water charges on "W" TOTAL				314.24
	Add GST on "X" (multiplying factor 0.1405)				2550.82 Y
	TOTAL				382.62
	Add 15% CPOH on "Y" TOTAL				2933.44 Z
	Add Cess @ 1% on "Z" Cost of each				29.33
	Say				2962.78
					2962.80
	FOR DPA 30% LESS				**2073.96**

14.75.2 Orissa pattern W.C Pan of size 580x440 mm

Code	Description	Unit	Quantity	Rate	Amount
1954	Details of cost for 1 no. MATERIAL	each	1.00	1290.00	1290.00
1890	Vitreous china orrisa type W.C. pan size 580 mm	each L.S.	1.00	325.00	325.00
9999	Centrifugally sand cast (spun) S&S "P" or "S" trap	L.S.	13.36	2.12	28.32
9977	Cement sand & grit etc. Carriage of materials Less for	kg	13.52	2.12	28.66
1880	Dismantled "P" or "S" trap scrap (app. Wt 2 kg.)		-2.00	25.00	-50.00
0129	LABOUR	day day	0.05	645.00	32.25
0114	(a) For dismantling WC seat and P or S trap	day day	0.125	645.00	80.63
0126	Sewerman Beldar		0.80	784.00	627.20
0114	(b) For Fixing WC seat and "P" or "S" trap		0.80	645.00	516.00
	Mason 1st class Beldar				2878.06 W
	TOTAL				28.78
	Add 1 % Water charges on "W" TOTAL				2906.84 X
	Add GST on "X" (multiplying factor 0.1405)				408.41
	TOTAL				3315.25 Y
	Add 15% CPOH on "Y" TOTAL				497.29
	Add Cess @ 1% on "Z" Cost of each				3812.54 Z
	Say				38.13
					3850.67
					3850.65

	FOR DPA 30% LESS				2695.455

14.76 Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
13.4.1 7752 9999 0123 0124 0114	Detail of Cost for 10 holes Size 0.30x0.30x0.23 m wall MATERIAL 12 mm plaster 1:4 (1 Cement: 4 Coarse sand) Actual Area (10x4x0.3x0.23) = 0.296 + 0.24 L.S. For corners/sides = 3.00 Sqm Rate as per Item No.13.4.1 of SH:FINISHING PVC slotted pipe 200 mm dia as per IS: 12818 Sundries LABOUR Proportionate labour taken as actually required at site Mason (brick layer) 1st class (0.16/0.0306)= 0.11 Nos. Mason (brick layer) 2nd class (0.16/0.030)x0.207 = 0.11 Nos. Beldar (1.25x0.207)/0.0306 =1.10 Nos.	sqm metre L.S. day day day	3.00 0.25 8.06 0.11 0.11 1.10	307.25 810.00 2.12 784.00 714.00 645.00	921.75 A 202.50 17.09 86.24 78.54 709.50
Code	**Description**	**Unit**	**Quantity**	**Rate ₹**	**Amount ₹**
9999	Add L.S. For Delay TOTAL Add 1 % Water charges on “W-A” TOTAL Add GST on “X-A” (multiplying factor 0.1405) TOTAL Add 15% CPOH on “Y-A” TOTAL Add Cess @ 1% on “Z-A” Cost of 10 nos Cost of each Say	L.S.	16.12	2.12	34.17 2049.79 W 11.28 2061.07 X 160.07 2221.15 Y 194.91 2416.06 Z 14.94 2431.00 243.10 243.10
	FOR DPA 30% LESS				**170.17**

14.77 Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114 9999	Details of cost for 1 no. LABOUR Beldar Sundries TOTAL Add 1 % Water charges on “W” TOTAL Add GST on “X” (multiplying factor 0.1405) TOTAL Add 15% CPOH on “Y” TOTAL Add Cess @ 1% on “Z” Cost of each Say	day L.S.	0.125 1.00	645.00 2.12	80.63 2.12 82.75 W 0.83 83.57 X 11.74 95.31 Y 14.30 109.61 Z 1.10 110.71 110.70
	FOR DPA 30% LESS				**77.49**

14.78 Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹

0114 9999	Details of cost for 10 sqm LABOUR Beldar Sundries TOTAL Add 1 % Water charges on “W” TOTAL Add GST on “X” (multiplying factor 0.1405) TOTAL Add 15% CPOH on “Y” TOTAL Add Cess @ 1% on “Z” Cost of 10 sqm Cost of 1 sqm Say	day L.S.	0.03 1.00	645.00 2.12	19.35 2.12 21.47 W 0.21 21.68 X 3.05 24.73 Y 3.71 28.44 Z 0.28 28.73 2.87 2.85
	FOR DPA 30% LESS				**2.00**

14.79 Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer-in-Charge.
(a) Internal Work- Exposed on wall

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Details of cost for 10 metre LABOUR Dismantling of G.I. Pipe and stacking etc. TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 metres Cost of 1 metre Say	L.S.	10.00	2.12	21.20 21.20 W 0.21 21.41 X 3.01 24.42 Y 3.66 28.08 Z 0.28 28.36 2.84 2.85
	FOR DPA 30% LESS				**2.00**

14.80 Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
0637 0156 0114	Details of cost for one shutter (2.2 sqm) Normal exiting size of shutter 1.00x2.02m =2.02sqm MATERIAL Bright finished or black enameled mild steel screws 40 mm Assuming old hinges fixed in Tee iron frames Half qty = 48/2=24 needs replacement LABOUR Carpenter (average) Beldar TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost for 2.2 sqm or each shutter Cost for 2.02 sqm or each shutter Say	100 Nos day day	0.24 0.18 0.18	60.00 749.00 645.00	14.40 134.82 116.10 265.32 W 2.65 267.97 X 37.65 305.62 Y 45.84 351.47 Z 3.51 354.98 325.94 325.95
	FOR DPA 30% LESS				**228.17**

SUB HEAD 15
DISMANTLING AND DEMOLISHING

15.1 Demolishing lime concrete manually/ by mechanical means and disposal of material within 50 metres lead as per direction of Engineer- in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.44	645.00	283.80
0115	Coolie	day	0.37	645.00	238.65
9999	Sundries	L.S.	1.04	2.12	2.20
	TOTAL				524.65 W
	Add 1 % Water charges on “W”				5.25
	TOTAL				529.90 X
	Add GST on “X” (multiplying factor 0.1405)				74.45
	TOTAL				604.35 Y
	Add 15% CPOH on “Y”				90.65
	TOTAL				695.01 Z
	Add Cess @ 1% on “Z”				6.95
	Cost of 1.00 cum				701.96
	Say				701.95
	FOR DPA 30% LESS				**491.365**

15.2 Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.

15.2.1 Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	1.59	645.00	1025.55
0115	Coolie	day	0.72	645.00	464.40
9999	Sundries	L.S.	4.81	2.12	10.20
	TOTAL				1500.15 W
	Add 1 % Water charges on "W"				15.00
	TOTAL				1515.15 X
	Add GST on "X" (multiplying factor 0.1405)				212.88
	TOTAL				1728.03 Y
	Add 15% CPOH on "Y"				259.20
	TOTAL				1987.23 Z
	Add Cess @ 1% on "Z"				19.87
	Cost of 1.00 cum				2007.10
	Say				2007.10
	FOR DPA 30% LESS				**1404.97**

15.2.2 Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.88	645.00	567.60
0115	Coolie	day	0.55	645.00	354.75
9999	Sundries	L.S.	1.95	2.12	4.13
	TOTAL				926.48 W
	Add 1 % Water charges on “W”				9.26
	TOTAL				935.75 X
	Add GST on “X” (multiplying factor 0.1405)				131.47
	TOTAL				1067.22 Y
	Add 15% CPOH on “Y”				160.08
	TOTAL				1227.30 Z
	Add Cess @ 1% on “Z”				12.27
	Cost of 1.00 cum				1239.58
	Say				1239.60
	FOR DPA 30% LESS				**867.72**

15.3 Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	2.65	645.00	1709.25
0115	Coolie	day	0.72	645.00	464.40
9999	Sundries	L.S.	7.02	2.12	14.88
	TOTAL				2188.53 W
	Add 1 % Water charges on “W”				21.89
	TOTAL				2210.42 X
	Add GST on “X” (multiplying factor 0.1405)				310.56
	TOTAL				2520.98 Y
	Add 15% CPOH on “Y”				378.15
	TOTAL				2899.13 Z
	Add Cess @ 1% on “Z”				28.99
	Cost of 1.00 cum				2928.12
	Say				2928.10
	FOR DPA 30% LESS				**2049.67**

15.4 Demolishing R.B. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in- charge.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	2.12	645.00	1367.40
0115	Coolie	day	0.90	645.00	580.50
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Sundries	L.S.	4.68	2.12	9.92
	TOTAL				1957.82 W
	Add 1 % Water charges on "W"				19.58
	TOTAL				1977.40 X
	Add GST on "X" (multiplying factor 0.1405)				277.82
	TOTAL				2255.22 Y
	Add 15% CPOH on "Y"				338.28
	TOTAL				2593.51 Z
	Add Cess @ 1% on "Z"				25.94
	Cost of 1.00 cum				2619.44
	Say				2619.45
	FOR DPA 30% LESS				**1833.615**

15.5 Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 sqm				
	R.C.C. or R.B. workReinforced area considering 1% reinforcement = 0.01sqm				
	LABOUR				
	For cutting 0.01 sqm reinforcement				
0103	Blacksmith 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				707.89 W
	Add 1 % Water charges on "W"				7.08
	TOTAL				714.97 X
	Add GST on "X" (multiplying factor 0.1405)				100.45
	TOTAL				815.42 Y

Code	Description	Unit	Quantity	Rate	Amount
	Add 15% CPOH on "Y"				122.31
	TOTAL				937.73 Z
	Add Cess @ 1% on "Z"				9.38
	Cost of 1.00 sqm				947.11
	Say				947.10
	FOR DPA 30% LESS				**662.97**

15.6 Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 Nos				
	6 metres long 16 mm dia bars @				
	1.58 kg/metre				
	Total weight = 94.80 kg = 0.948 quintal				
	LABOUR				
0103	Blacksmith 2nd class	day	0.25	714.00	178.50
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				529.39 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				534.68 X
	Add GST on "X" (multiplying				
	factor 0.1405)				75.12
	TOTAL				609.80 Y
	Add 15% CPOH on "Y"				91.47
	TOTAL				701.27 Z
	Add Cess @ 1% on "Z"				7.01
	Cost of 94.80 kg				708.29
	Cost of 1.00 kg				7.47
	Say				7.45
	FOR DPA 30% LESS				**5.22**

15.7 Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.

15.7.1 In mud mortar

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.30	645.00	193.50
0115	Coolie	day	0.37	645.00	238.65
9999	Sundries	L.S.	1.04	2.12	2.20
	TOTAL				434.35 W
	Add 1 % Water charges on “W”				4.34
	TOTAL				438.70 X
	Add GST on “X” (multiplying				
	factor 0.1405)				61.64
	TOTAL				500.34 Y
	Add 15% CPOH on “Y”				75.05
	TOTAL				575.39 Z
	Add Cess @ 1% on “Z”				5.75
	Cost of 1.00 cum				581.14
	Say				581.15
	FOR DPA 30% LESS				**406.805**

15.7.2 In lime mortar with old mughal bricks

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	1.24	645.00	799.80
0115	Coolie	day	0.46	645.00	296.70
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Sundries	L.S.	1.04	2.12	2.20
	TOTAL				1098.70 W

	Add 1 % Water charges on "W"				10.99
	TOTAL				1109.69 X
	Add GST on "X" (multiplying factor 0.1405)				155.91
	TOTAL				1265.60 Y
	Add 15% CPOH on "Y"				189.84
	TOTAL				1455.44 Z
	Add Cess @ 1% on "Z"				14.55
	Cost of 1.00 cum				1470.00
	Say				1470.00
	FOR DPA 30% LESS				**1029**

15.7.3 In lime mortar

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.44	645.00	283.80
0115	Coolie	day	0.37	645.00	238.65
9999	Sundries	L.S.	1.04	2.12	2.20
	TOTAL				524.65 W
	Add 1 % Water charges on "W"				5.25
	TOTAL				529.90 X
	Add GST on "X" (multiplying factor 0.1405)				74.45
	TOTAL				604.35 Y
	Add 15% CPOH on "Y"				90.65
	TOTAL				695.01 Z
	Add Cess @ 1% on "Z"				6.95
	Cost of 1.00 cum				701.96
	Say				701.95
	FOR DPA 30% LESS				**491.365**

15.7.4 In cement mortar

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	1.06	645.00	683.70
0115	Coolie	day	0.90	645.00	580.50
9999	Sundries	L.S.	2.47	2.12	5.24
	TOTAL				1269.44 W
	Add 1 % Water charges on “W”				12.69
	TOTAL				1282.13 X
	Add GST on “X” (multiplying factor 0.1405)				180.14
	TOTAL				1462.27 Y
	Add 15% CPOH on “Y”				219.34
	TOTAL				1681.61 Z
	Add Cess @ 1% on “Z”				16.82
	Cost of 1.00 cum				1698.43
	Say				1698.45
	FOR DPA 30% LESS				**1188.915**

15.8 Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 m (stacks of cleaned bricks shall be measured):

15.8.1 From brick work in mud mortar

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1000 Nos				
	LABOUR				
0114	Beldar	day	2.40	645.00	1548.00
0115	Coolie	day	1.60	645.00	1032.00
0124	Mason (brick layer) 2nd class	day	0.40	714.00	285.60
9999	Sundries	L.S.	1.82	2.12	3.86
	TOTAL				2869.46 W
	Add 1 % Water charges on "W"				28.69

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				2898.15 X
	Add GST on "X" (multiplying factor 0.1405)				407.19
	TOTAL				3305.34 Y
	Add 15% CPOH on "Y"				495.80
	TOTAL				3801.14 Z
	Add Cess @ 1% on "Z"				38.01
	Cost of 1000 Nos				3839.16
	Say				3839.15
	FOR DPA 30% LESS				**2687.405**

15.8.2 From brick work in lime mortar

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1000 Nos				
	LABOUR				
0114	Beldar	day	2.80	645.00	1806.00
0115	Coolie	day	1.40	645.00	903.00
0124	Mason (brick layer) 2nd class	day	0.80	714.00	571.20
9999	Sundries	L.S.	8.97	2.12	19.02
	TOTAL				3299.22 W
	Add 1 % Water charges on "W"				32.99
	TOTAL				3332.21 X
	Add GST on "X" (multiplying factor 0.1405)				468.18
	TOTAL				3800.38 Y
	Add 15% CPOH on "Y"				570.06
	TOTAL				4370.44 Z
	Add Cess @ 1% on "Z"				43.70
	Cost of 1000 Nos				4414.15
	Say				4414.15
	FOR DPA 30% LESS				**3089.905**

15.8.3 From brick work in cement mortar

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1000 Nos				
	LABOUR				
0114	Beldar	day	3.50	645.00	2257.50
0115	Coolie	day	1.50	645.00	967.50
0124	Mason (brick layer) 2nd class	day	1.24	714.00	885.36
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				4127.45 W
	Add 1 % Water charges on “W”				41.27
	TOTAL				4168.72 X
	Add GST on “X” (multiplying factor 0.1405)				585.71
	TOTAL				4754.43 Y
	Add 15% CPOH on “Y”				713.16
	TOTAL				5467.59 Z
	Add Cess @ 1% on “Z”				54.68
	Cost of 1000 Nos				5522.27
	Say				5522.25
	FOR DPA 30% LESS				**3865.575**

15.9 Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :

15.9.1 In lime mortar

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.61	645.00	393.45
0115	Coolie	day	0.49	645.00	316.05
9999	Sundries	L.S.	1.95	2.12	4.13
	TOTAL				713.63 W

	Add 1 % Water charges on “W”				7.14
	TOTAL				720.77 X
	Add GST on “X” (multiplying factor 0.1405)				101.27
	TOTAL				822.04 Y
	Add 15% CPOH on “Y”				123.31
	TOTAL				945.34 Z
	Add Cess @ 1% on “Z”				9.45
	Cost of 1.00 cum				954.80
	Say				954.80
	FOR DPA 30% LESS				**668.36**

15.9.2 In cement mortar

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	1.30	645.00	838.50
0115	Coolie	day	1.04	645.00	670.80
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				1515.09 W
	Add 1 % Water charges on "W"				15.15
	TOTAL				1530.24 X
	Add GST on "X" (multiplying factor 0.1405)				215.00
	TOTAL				1745.24 Y
	Add 15% CPOH on "Y"				261.79
	TOTAL				2007.02 Z
	Add Cess @ 1% on "Z"				20.07
	Cost of 1.00 cum				2027.09
	Say				2027.10
	FOR DPA 30% LESS				**1418.97**

15.10 Removing mortar from and cleaning stones and concrete articles (net quantity of stacks of cleaned materials will be measured):

15.10.1 In lime mortar

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0114	Beldar	day	0.20	645.00	129.00
0115	Coolie	day	0.20	645.00	129.00
9999	Sundries	L.S.	0.52	2.12	1.10
	TOTAL				294.80 W
	Add 1 % Water charges on “W”				2.95
	TOTAL				297.75 X
	Add GST on “X” (multiplying factor 0.1405)				41.83
	TOTAL				339.58 Y
	Add 15% CPOH on “Y”				50.94
	TOTAL				390.52 Z
	Add Cess @ 1% on “Z”				3.91
	Cost of 1.00 cum				394.43
	Say				394.45
	FOR DPA 30% LESS				**276.115**

15.10.2 In cement mortar

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 cum				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0114	Beldar	day	0.40	645.00	258.00
0115	Coolie	day	0.20	645.00	129.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**

Code	Description	Unit	Quantity	Rate	Amount
9999	Sundries	L.S.	0.91	2.12	1.93
	TOTAL				424.63 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				428.88 X
	Add GST on "X" (multiplying factor 0.1405)				60.26
	TOTAL				489.13 Y
	Add 15% CPOH on "Y"				73.37
	TOTAL				562.50 Z
	Add Cess @ 1% on "Z"				5.63
	Cost of 1.00 cum				568.13
	Say				568.15
	FOR DPA 30% LESS				**397.705**

15.11 Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :

15.11.1 Of area 3 sq. metres and below

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for each				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.10	714.00	71.40
0114	Beldar	day	0.18	645.00	116.10
0103	Blacksmith 2nd class	day	0.05	714.00	35.70
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				226.23 W
	Add 1 % Water charges on "W"				2.26
	TOTAL				228.49 X
	Add GST on "X" (multiplying factor 0.1405)				32.10
	TOTAL				260.60 Y
	Add 15% CPOH on "Y"				39.09
	TOTAL				299.69 Z
	Add Cess @ 1% on "Z"				3.00
	Cost of each				302.68
	Say				302.70
	FOR DPA 30% LESS				**211.89**

15.11.2 Of area beyond 3 sq. metres

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for each				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.13	714.00	92.82
0114	Beldar	day	0.25	645.00	161.25
0103	Blacksmith 2nd class	day	0.07	714.00	49.98
Code	**Description**	**Unit**	**Quantity**	**Rate ₹**	**Amount ₹**
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				309.84 W
	Add 1 % Water charges on "W"				3.10
	TOTAL				312.94 X
	Add GST on "X" (multiplying factor 0.1405)				43.97
	TOTAL				356.90 Y
	Add 15% CPOH on "Y"				53.54
	TOTAL				410.44 Z
	Add Cess @ 1% on "Z"				4.10
	Cost of each				414.54
	Say				414.55
	FOR DPA 30% LESS				**290.185**

15.12 Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :

15.12.1 Of area 3 sq. metres and below

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for each				

	LABOUR				
0112	Carpenter 2nd class	day	0.05	714.00	35.70
0114	Beldar	day	0.08	645.00	51.60
9999	Sundries	L.S.	0.52	2.12	1.10
	TOTAL				88.40 W
	Add 1 % Water charges on "W"				0.88
	TOTAL				89.29 X
	Add GST on "X" (multiplying factor 0.1405)				12.54
	TOTAL				101.83 Y
	Add 15% CPOH on "Y"				15.27
	TOTAL				117.11 Z
	Add Cess @ 1% on "Z"				1.17
	Cost of each				118.28
	Say				118.30
	FOR DPA 30% LESS				**82.81**

15.12.2 Of area beyond 3 sq. metres

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for each				
	LABOUR				
0112	Carpenter 2nd class	day	0.07	714.00	49.98
0114	Beldar	day	0.10	645.00	64.50
9999	Sundries	L.S.	0.91	2.12	1.93
	TOTAL				116.41 W
	Add 1 % Water charges on "W"				1.16
	TOTAL				117.57 X
	Add GST on "X" (multiplying factor 0.1405)				16.52
	TOTAL				134.09 Y
	Add 15% CPOH on "Y"				20.11
	TOTAL				154.21 Z
	Add Cess @ 1% on "Z"				1.54
	Cost of each				155.75
	Say				155.75
	FOR DPA 30% LESS				**109.025**

15.13 Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead :

15.13.1 Of sectional area 40 square centimetres and above

Code	Description	Unit	Quantity	Rate ₹	₹ Amount
	Detail of cost for 1 cum				
	LABOUR				
0112	Carpenter 2nd class	day	2.00	714.00	1428.00
0114	Beldar	day	2.00	645.00	1290.00
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				2746.39 W
	Add 1 % Water charges on "W"				27.46
	TOTAL				2773.85 X
	Add GST on "X" (multiplying factor 0.1405)				389.73
	TOTAL				3163.58 Y
	Add 15% CPOH on "Y"				474.54
	TOTAL				3638.11 Z
	Add Cess @ 1% on "Z"				36.38
	Cost of 1.00 cum				3674.49
	Say				3674.50
	FOR DPA 30% LESS				**2572.15**

15.13.2 Of sectional area below 40 square centimetres

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 metre				
	LABOUR				
0112	Carpenter 2nd class	day	0.08	714.00	57.12

0114	Beldar	day	0.08	645.00	51.60
9999	Sundries	L.S.	0.52	2.12	1.10
	TOTAL				109.82 W
	Add 1 % Water charges on "W"				1.10
	TOTAL				110.92 X
	Add GST on "X" (multiplying factor 0.1405)				15.58
	TOTAL				126.50 Y
	Add 15% CPOH on "Y"				18.98
	TOTAL				145.48 Z
	Add Cess @ 1% on "Z"				1.45
	Cost of 10.00 metre				146.94
	Cost of 1.00 metre				14.69
	Say				14.70
	FOR DPA 30% LESS				**10.29**

15.14 Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional span of one metre or part thereof beyond 10 metres :

15.14.1 Of sectional area 40 square centimetres and above

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1cum for every additional span of 1 metre				
	LABOUR				
0103	Blacksmith 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.30	645.00	193.50
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				364.69 W
	Add 1 % Water charges on “W”				3.65
	TOTAL				368.33 X
	Add GST on “X” (multiplying factor 0.1405)				51.75
	TOTAL				420.08 Y
	Add 15% CPOH on “Y”				63.01
	TOTAL				483.10 Z
	Add Cess @ 1% on “Z”				4.83
	Cost of 1.00 cum per metre span				487.93
	Say				487.95
	FOR DPA 30% LESS				**341.565**

15.14.2 Of sectional area below 40 square centimetres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre for every additional span of 1 metre				
	LABOUR				
0103	Blacksmith 2nd class	day	0.006	714.00	4.28
0114	Beldar	day	0.008	645.00	5.16
9999	Sundries	L.S.	0.39	2.12	0.83
	TOTAL				10.27 W
	Add 1 % Water charges on "W"				0.10
	TOTAL				10.37 X
	Add GST on "X" (multiplying factor 0.1405)				1.46
	TOTAL				11.83 Y
	Add 15% CPOH on "Y"				1.77
	TOTAL				13.61 Z
	Add Cess @ 1% on "Z"				0.14
	Cost of 10.00 metre per metre span				13.74
	Cost of 1.00 metre per metre span				1.37
	Say				1.35
	FOR DPA 30% LESS				**0.945**

15.15 Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional height of one metre or part thereof beyond 5 metres :

15.15.1 Of sectional area 40 square centimetres and above

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum for every additional height of 1 metre				
	LABOUR				
0103	Blacksmith 2nd class	day	0.25	714.00	178.50
0114	Beldar	day	0.50	645.00	322.50
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				529.39 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				534.68 X
	Add GST on "X" (multiplying factor 0.1405)				75.12
	TOTAL				609.80 Y
	Add 15% CPOH on "Y"				91.47
	TOTAL				701.27 Z
	Add Cess @ 1% on "Z"				7.01
	Cost of 1.00 cum per metre height				708.29
	Say				708.30
	FOR DPA 30% LESS				**495.81**

15.15.2 Of sectional area below 40 square centimetres

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 metre for every additional height of 1 metre				
	LABOUR				
0103	Blacksmith 2nd class	day	0.01	714.00	7.14
0114	Beldar	day	0.02	645.00	12.90
9999	Sundries	L.S.	0.39	2.12	0.83
	TOTAL				20.87 W
	Add 1 % Water charges on "W"				0.21
	TOTAL				21.08 X
	Add GST on "X" (multiplying factor 0.1405)				2.96
	TOTAL				24.04 Y
	Add 15% CPOH on "Y"				3.61
	TOTAL				27.64 Z
	Add Cess @ 1% on "Z"				0.28
	Cost of 10.00 metre per metre height				27.92
	Cost of 1.00 metre per metre height				2.79
	Say				2.80
	FOR DPA 30% LESS				**1.96**

15.16 Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in:

15.16.1 R.S. Joists

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 quintal				
	LABOUR				
0103	Blacksmith 2nd class	day	0.05	714.00	35.70
0100	Bandhani	day	0.10	714.00	71.40
0114	Beldar	day	0.15	645.00	96.75
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				209.64 W
	Add 1 % Water charges on "W"				2.10
	TOTAL				211.73 X
	Add GST on "X" (multiplying factor 0.1405)				29.75

	TOTAL				241.48 Y
	Add 15% CPOH on "Y"				36.22
	TOTAL				277.70 Z
	Add Cess @ 1% on "Z"				2.78
	Cost of 1.00 quintal				280.48
	Cost of 1.00 kg				2.80
	Say				2.80
	FOR DPA 30% LESS				**1.96**

15.16.2 Channels, angles, tees and flats

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 quintal				
	LABOUR				
0103	Blacksmith 2nd class	day	0.05	714.00	35.70
0100	Bandhani	day	0.05	714.00	35.70
0114	Beldar	day	0.10	645.00	64.50
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				141.69 W
	Add 1 % Water charges on "W"				1.42
	TOTAL				143.10 X
	Add GST on "X" (multiplying factor 0.1405)				20.11
	TOTAL				163.21 Y
	Add 15% CPOH on "Y"				24.48
	TOTAL				187.69 Z
	Add Cess @ 1% on "Z"				1.88
	Cost of 1.00 quintal				189.57
	Cost of 1.00 kg				1.90
	Say				1.90
	FOR DPA 30% LESS				**1.33**

15.17 Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 quintal				
	LABOUR				
0103	Blacksmith 2nd class	day	0.15	714.00	107.10
0100	Bandhani	day	0.10	714.00	71.40
0114	Beldar	day	0.25	645.00	161.25
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Sundries	L.S.	4.16	2.12	8.82
	TOTAL				348.57 W
	Add 1 % Water charges on "W"				3.49
	TOTAL				352.05 X
	Add GST on "X" (multiplying factor 0.1405)				49.46
	TOTAL				401.52 Y
	Add 15% CPOH on "Y"				60.23
	TOTAL				461.75 Z
	Add Cess @ 1% on "Z"				4.62
	Cost of 1.00 quintal				466.36
	Cost of 1.00 kg				4.66
	Say				4.65
	FOR DPA 30% LESS				**3.255**

15.18 Dismantling steel work manually/ by mechanical means in built up sections without dismembering and stacking within 50 metres lead as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 quintal				
	LABOUR				
0100	Bandhani	day	0.10	714.00	71.40
0114	Beldar	day	0.25	645.00	161.25

9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				238.44 W
	Add 1 % Water charges on "W"				2.38
	TOTAL				240.82 X
	Add GST on "X" (multiplying factor 0.1405)				33.84
	TOTAL				274.66 Y
	Add 15% CPOH on "Y"				41.20
	TOTAL				315.86 Z
	Add Cess @ 1% on "Z"				3.16
	Cost of 1.00 quintal				319.01
	Cost of 1.00 kg				3.19
	Say				3.20
	FOR DPA 30% LESS				**2.24**

15.19 Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional span of one metre or part thereof beyond 10 metres

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 quintal for every additional span of 1 metre beyond 10 metre				
	LABOUR				
0100	Bandhani	day	0.02	714.00	14.28
0114	Beldar	day	0.06	645.00	38.70
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Sundries	L.S.	0.39	2.12	0.83
	TOTAL				53.81 W
	Add 1 % Water charges on "W"				0.54
	TOTAL				54.34 X
	Add GST on "X" (multiplying factor 0.1405)				7.64
	TOTAL				61.98 Y
	Add 15% CPOH on "Y"				9.30
	TOTAL				71.28 Z
	Add Cess @ 1% on "Z"				0.71
	Cost of 1.00 quintal per metre span				71.99
	Cost of 1.00 kg per metre span				0.72
	Say				0.70
	FOR DPA 30% LESS				**0.49**

15.20 Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional height of one metre or part thereof beyond 5 metres.

Code	Description	Unit	Quantity	Rate ₹	₹ Amount
	Detail of cost for 1 quintal for every additional height of 1 metre beyond 5 metre				
	LABOUR				
0100	Bandhani	day	0.02	714.00	14.28
0114	Beldar	day	0.06	645.00	38.70
9999	Sundries	L.S.	0.39	2.12	0.83
	TOTAL				53.81 W
	Add 1 % Water charges on "W"				0.54
	TOTAL				54.34 X
	Add GST on "X" (multiplying factor 0.1405)				7.64
	TOTAL				61.98 Y
	Add 15% CPOH on "Y"				9.30
	TOTAL				71.28 Z
	Add Cess @ 1% on "Z"				0.71
	Cost of 1.00 quintal per metre height				71.99
	Cost of 1.00 kg per metre height				0.72
	Say				0.70

	FOR DPA 30% LESS				**0.49**

15.21 Extra for marking of structural steel work required to be re-erected.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 quintal				
	LABOUR				
0130	Mistry	day	0.20	784.00	156.80
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				285.80 W
	Add 1 % Water charges on "W"				2.86
	TOTAL				288.66 X
	Add GST on "X" (multiplying factor 0.1405)				40.56
	TOTAL				329.21 Y
	Add 15% CPOH on "Y"				49.38
	TOTAL				378.60 Z
	Add Cess @ 1% on "Z"				3.79
	Cost of 1.00 quintal				382.38
	Cost of 1.00 kg				3.82
	Say				3.80
	FOR DPA 30% LESS				**2.66**

15.22 Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.

15.22.1 For thickness of tiles 10 mm to 25 mm

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.30	714.00	214.20
0114	Beldar	day	0.12	645.00	77.40
0115	Coolie	day	0.24	645.00	154.80
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				452.19 W
	Add 1 % Water charges on “W”				4.52
	TOTAL				456.71 X
	Add GST on “X” (multiplying factor 0.1405)				64.17
	TOTAL				520.88 Y
	Add 15% CPOH on “Y”				78.13
	TOTAL				599.01 Z
	Add Cess @ 1% on “Z”				5.99
	Cost of 10.00 sqm				605.00
	Cost of 1.00 sqm				60.50
	Say				60.50
	FOR DPA 30% LESS				**42.35**

15.22.2 For thickness of tiles above 25 mm and up to 40 mm

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.59	714.00	421.26
0114	Beldar	day	0.18	645.00	116.10
0115	Coolie	day	0.24	645.00	154.80
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				697.95 W
	Add 1 % Water charges on "W"				6.98
	TOTAL				704.93 X
	Add GST on "X" (multiplying factor 0.1405)				99.04
	TOTAL				803.97 Y
	Add 15% CPOH on "Y"				120.60
	TOTAL				924.56 Z
	Add Cess @ 1% on "Z"				9.25
	Cost of 10.00 sqm				933.81

	Cost of 1.00 sqm				93.38
	Say				93.40
	FOR DPA 30% LESS				**65.38**

15.23 Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of:

15.23.1 G.S. Sheet

Code	Description	Unit	Quantity	Rate	Amount
0112 0114	Detail of cost for 10 sqm LABOUR Carpenter 2nd class Beldar	day day	0.50 1.00	714.00 645.00	357.00 645.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Sundries TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10.00 sqm Cost of 1.00 sqm Say	L.S.	6.76	2.12	14.33 1016.33 W 10.16 1026.49 X 144.22 1170.72 Y 175.61 1346.32 Z 13.46 1359.79 135.98 136.00
	FOR DPA 30% LESS				**95.2**

15.23.2 Asbestos Cement sheet

Code	Description	Unit	Quantity	Rate	Amount
0112 0114 9999	Detail of cost for 10 sqm LABOUR Carpenter 2nd class Beldar Sundries TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10.00 sqm Cost of 1.00 sqm Say	day day L.S.	0.20 0.50 5.33	714.00 645.00 2.12	142.80 322.50 11.30 476.60 W 4.77 481.37 X 67.63 549.00 Y 82.35 631.35 Z 6.31 637.66 63.77 63.75
	FOR DPA 30% LESS				**44.625**

15.24 Cutting ballies or wooden posts of fencing at the point of projection above the concrete or ground and stacking the same within 50 metres lead.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 ballie (post)				
9999	Cutting	L.S.	2.73	2.12	**5.79**
9999	Transporting and stacking	L.S.	1.43	2.12	**3.03**
	TOTAL				**8.82**
	Add 1 % Water charges on "W"				**0.09**
	TOTAL				**8.91**
	Add GST on "X" (multiplying factor 0.1405)				**1.25**
	TOTAL				**10.16**
	Add 15% CPOH on "Y"				**1.52**
	TOTAL				**11.68**
	Add Cess @ 1% on "Z"				**0.12**
	Cost of each				**11.80**
	Say				**11.80**
	FOR DPA 30% LESS				**8.26**

15.25 Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50 metres lead.

Code	Description	Unit	Quantity	Rate	Amount
0114	Detail of cost for 1 quintal LABOUR Beldar	day	3.50	645.00	2257.50
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				2268.80 W
	Add 1 % Water charges on "W"				22.69
	TOTAL				2291.49 X

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X" (multiplying factor 0.1405)				321.95
	TOTAL				2613.44 Y
	Add 15% CPOH on "Y"				392.02
	TOTAL				3005.46 Z
	Add Cess @ 1% on "Z"				30.05
	Cost of 1.00 quintal				3035.51
	Cost of 1.00 kg				30.36
	Say				30.35
	FOR DPA 30% LESS				**21.245**

15.26 Dismantling wooden boardings in lining of walls and partitions, excluding supporting members but including stacking within 50 metres lead :

15.26.1 Up to 10 mm thick

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0112	Carpenter 2nd class	day	0.15	714.00	**107.10**
0114	Beldar	day	0.20	645.00	**129.00**
0115	Coolie	day	0.20	645.00	**129.00**
9999	Sundries	L.S.	5.33	2.12	**11.30**
	TOTAL				**376.40**
	Add 1 % Water charges on "W"				**3.76**
	TOTAL				**380.16**
	Add GST on "X" (multiplying factor 0.1405)				**53.41**
	TOTAL				**433.58**
	Add 15% CPOH on "Y"				**65.04**
	TOTAL				**498.61**
	Add Cess @ 1% on "Z"				**4.99**
	Cost of 10.00 sqm				**503.60**
	Cost of 1.00 sqm				**50.36**
	Say				**50.35**
	FOR DPA 30% LESS				**35.245**

15.26.2 Thickness above 10 mm up to 25 mm

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0112	Carpenter 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.25	645.00	161.25
0115	Coolie	day	0.25	645.00	161.25

Code	Description	Unit	Quantity	Rate	Amount
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				479.63 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.43 X
	Add GST on "X" (multiplying factor 0.1405)				68.06
	TOTAL				552.49 Y
	Add 15% CPOH on "Y"				82.87
	TOTAL				635.36 Z
	Add Cess @ 1% on "Z"				6.35
	Cost of 10.00 sqm				641.72
	Cost of 1.00 sqm				64.17
	Say				64.15
	FOR DPA 30% LESS				**44.905**

15.26.3 Thickness above 25 mm up to 40 mm

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0112	Carpenter 2nd class	day	0.20	714.00	**142.80**
0114	Beldar	day	0.30	645.00	**193.50**
0115	Coolie	day	0.30	645.00	**193.50**
9999	Sundries	L.S.	13.39	2.12	**28.39**
	TOTAL				**558.19**
	Add 1 % Water charges on "W"				**5.58**
	TOTAL				**563.77**
	Add GST on "X" (multiplying factor 0.1405)				**79.21**
	TOTAL				**642.98**
	Add 15% CPOH on "Y"				**96.45**
	TOTAL				**739.42**
	Add Cess @ 1% on "Z"				**7.39**
	Cost of 10.00 sqm				**746.82**
	Cost of 1.00 sqm				**74.68**
	Say				**74.70**
	FOR DPA 30% LESS				**52.29**

15.27 Dismantling precast concrete or stone slabs in walls, partition walls etc. including stacking within 50 metres lead :

15.27.1 Thickness up to 40 mm

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	2.00	645.00	1290.00
0115	Coolie	day	0.50	645.00	322.50
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				1783.69 W
	Add 1 % Water charges on "W"				17.84
	TOTAL				1801.52 X
	Add GST on "X" (multiplying factor 0.1405)				253.11
	TOTAL				2054.64 Y
	Add 15% CPOH on "Y"				308.20
	TOTAL				2362.83 Z
	Add Cess @ 1% on "Z"				23.63
	Cost of 10.00 sqm				2386.46
	Cost of 1.00 sqm				238.65
	Say				238.65
	FOR DPA 30% LESS				**167.055**

15.27.2 Thickness above 40 mm up to 75 mm

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.30	714.00	**214.20**
0114	Beldar	day	3.00	645.00	**1935.00**
0115	Coolie	day	0.75	645.00	**483.75**
9999	Sundries	L.S.	18.85	2.12	**39.96**
	TOTAL				**2672.91**
	Add 1 % Water charges on "W"				**26.73**
	TOTAL				**2699.64**
	Add GST on "X" (multiplying factor 0.1405)				**379.30**
	TOTAL				**3078.94**
	Add 15% CPOH on "Y"				**461.84**
	TOTAL				**3540.78**
	Add Cess @ 1% on "Z"				**35.41**
	Cost of 10.00 sqm				**3576.19**

Code	Description	Unit	Quantity	Rate	Amount
	Cost of 1.00 sqm				**357.62**
	Say				**357.60**
	FOR DPA 30% LESS				**250.32**

15.28 Dismantling cement asbestos or other hard board ceiling or partition walls including stacking of serviceable materials and disposal of unserviceable materials within 50 metres lead.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm.				
	LABOUR				
0112	Carpenter 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.30	645.00	193.50
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				347.60 W
	Add 1 % Water charges on "W"				3.48
	TOTAL				351.08 X
	Add GST on "X" (multiplying factor 0.1405)				49.33
	TOTAL				400.40 Y
	Add 15% CPOH on "Y"				60.06
	TOTAL				460.46 Z
	Add Cess @ 1% on "Z"				4.60
	Cost of 10.00 sqm.				465.07
	Cost of 1.00 sqm.				46.51
	Say				46.50
	FOR DPA 30% LESS				**32.55**

15.29 Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead :

15.29.1 75 to 80 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.36	645.00	**232.20**
0115	Coolie	day	0.36	645.00	**232.20**
9999	Sundries	L.S.	0.91	2.12	**1.93**
	TOTAL				**466.33**
	Add 1 % Water charges on "W"				**4.66**
	TOTAL				**470.99**
	Add GST on "X" (multiplying factor 0.1405)				**66.17**
	TOTAL				**537.17**
	Add 15% CPOH on "Y"				**80.58**
	TOTAL				**617.74**
	Add Cess @ 1% on "Z"				**6.18**
	Cost of 10.00 metre				**623.92**
	Cost of 1.00 metre				**62.39**
	Say				**62.40**
	FOR DPA 30% LESS				**43.68**

15.29.2 100 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.36	645.00	232.20
0115	Coolie	day	0.38	645.00	245.10
9999	Sundries	L.S.	1.56	2.12	3.31
	TOTAL				480.61 W
	Add 1 % Water charges on "W"				4.81
	TOTAL				485.41 X
	Add GST on "X" (multiplying factor 0.1405)				68.20
	TOTAL				553.61 Y
	Add 15% CPOH on "Y"				83.04
	TOTAL				636.66 Z

	Add Cess @ 1% on "Z"				6.37
	Cost of 10.00 metre				643.02
	Cost of 1.00 metre				64.30
	Say				64.30
	FOR DPA 30% LESS				**45.01**

15.29.3 150 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.36	645.00	**232.20**
0115	Coolie	day	0.40	645.00	**258.00**
9999	Sundries	L.S.	2.08	2.12	**4.41**
	TOTAL				**494.61**
	Add 1 % Water charges on "W"				**4.95**
	TOTAL				**499.56**
	Add GST on "X" (multiplying factor 0.1405)				**70.19**
	TOTAL				**569.74**
	Add 15% CPOH on "Y"				**85.46**
	TOTAL				**655.20**
	Add Cess @ 1% on "Z"				**6.55**
	Cost of 10.00 metre				**661.76**
	Cost of 1.00 metre				**66.18**
	Say				**66.20**
	FOR DPA 30% LESS				**46.34**

15.30 Dismantling manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :

15.30.1 Water bound macadam road

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 36 sqm				
	Consider a road 6 metres wide and 6 metres length wise 25 cm average depth = 9.00 cubic metre				
	LABOUR				
	For cutting road taking out soiling and metalling including sorting and screening				
0114	Beldar	day	4.80	645.00	3096.00
0115	Coolie	day	2.40	645.00	1548.00
9999	Labour for stacking of serviceable				0.00
	material and disposal of unserviceable				0.00
	material within 50 metres lead	L.S.	89.70	2.12	190.16
	TOTAL				4834.16
	Add 1 % Water charges on "W"				48.34
	TOTAL				4882.51
	Add GST on "X" (multiplying factor 0.1405)				685.99
	TOTAL				5568.50
	Add 15% CPOH on "Y"				835.27
	TOTAL				6403.77
	Add Cess @ 1% on "Z"				64.04
	Cost of 36.00 sqm				6467.81
	Cost of 1.00 sqm				179.66
	Say				179.65
	FOR DPA 30% LESS				125.755

15.30.2 bituminous road

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 36 sqm				
	Consider a road 6 metres wide and 6 metres length wise 30 cm average				

	depth =10.80 cubic metre				
	LABOUR				
	For cutting road taking out soiling and metalling including sorting and screening				
0114	Beldar	day	9.60	645.00	**6192.00**
0115	Coolie	day	4.80	645.00	**3096.00**
9999	Labour for stacking of serviceable				**0.00**
	material and disposal of unserviceable				**0.00**
	material within 50 metres lead	L.S.	107.64	2.12	**228.20**
	TOTAL				**9516.20**
	Add 1 % Water charges on "W"				**95.16**
	TOTAL				**9611.36**
	Add GST on "X" (multiplying factor 0.1405)				**1350.40**
	TOTAL				**10961.75**
	Add 15% CPOH on "Y"				**1644.26**
	TOTAL				**12606.02**
	Add Cess @ 1% on "Z"				**126.06**
	Cost of 36.00 sqm				**12732.08**
	Cost of 1.00 sqm				**353.67**
	Say				**353.65**
	FOR DPA 30% LESS				**247.555**

15.31 Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :

15.31.1 15 mm to 40 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 metre				
	LABOUR				
	Trenching and refilling etc				
0114	Beldar	day	0.66	645.00	**425.70**
0115	Coolie	day	0.66	645.00	**425.70**
9999	Dismantling G.I. pipe and stacking etc	L.S.	35.88	2.12	**76.07**
	TOTAL				**927.47**
	Add 1 % Water charges on "W"				**9.27**
	TOTAL				**936.74**
	Add GST on "X" (multiplying factor 0.1405)				**131.61**
	TOTAL				**1068.35**
	Add 15% CPOH on "Y"				**160.25**
	TOTAL				**1228.61**
	Add Cess @ 1% on "Z"				**12.29**
	Cost of 10.00 metre				**1240.89**
	Cost of 1.00 metre				**124.09**
	Say				**124.10**
	FOR DPA 30% LESS				**86.87**

15.31.2 Above 40 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 metre				
	LABOUR				
	Trenching and refilling etc				
0114	Beldar	day	0.66	645.00	**425.70**
0115	Coolie	day	0.66	645.00	**425.70**
9999	Dismantling G.I. pipe and stacking etc	L.S.	71.76	2.12	**152.13**
	TOTAL				**1003.53**
	Add 1 % Water charges on "W"				**10.04**
	TOTAL				**1013.57**
	Add GST on "X" (multiplying				

	factor 0.1405)				**142.41**
	TOTAL				**1155.97**
	Add 15% CPOH on "Y"				**173.40**
	TOTAL				**1329.37**
	Add Cess @ 1% on "Z"				**13.29**
	Cost of 10.00 metre				**1342.66**
	Cost of 1.00 metre				**134.27**
	Say				**134.25**
	FOR DPA 30% LESS				**93.975**

15.32 Dismantling C.I. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metre lead as per direction of Engineer-in-charge:

15.32.1 Up to 150 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 40.26 metre or				
	11 nos joints				
	Earth work in excavation for				
	dismantling pipes including refilling of				
	excavated earth				
	1x40.26x0.55x0.75 m =16.61cum				
	Deduct for pipes of average 100 mm dia				
	=1x40.26x(22/7)/4x(0.118)x(0.118)				
	=0.44cum				
	Total =16.17cum				
	LABOUR				
2.8.1	Rate as per Item No.2.8.1 of				
	SH: EARTH WORK	cum	16.17	286.85	4638.3645
2.25	Rate as per Item No.2.25 of				
	SH: EARTH WORK	cum	16.17	253.95	4106.3715
0761	Fuel wood	quintal	0.46	500.00	230
0771	Kerosene oil	litre	0.38	50.00	19
0117	Assistant Fitter or 2nd class Fitter	day	0.63	714.00	449.82
0114	Beldar	day	4.50	645.00	2902.5
9977	Carriage	L.S.	53.82	2.12	114.0984
	TOTAL				12460.1544
	Add 1 % Water charges on "W-A"				37.15
	TOTAL				12497.31
	Add GST on "X-A" (multiplying				
	factor 0.1405)				1755.87
	TOTAL				13024.55 Y
	Add 15% CPOH on "Y-A"				641.97
	TOTAL				13666.52 Z
	Add Cess @ 1% on "Z-A"				49.22
	Cost of 40.26 metre				13715.73
	Cost of 1.00 metre				340.68
	Say				340.70
	FOR DPA 30% LESS				**238.49**

15.32.2 Above 150 mm dia up to 300 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 40.26 metre or 11 nos joints Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x0.65x0.75 m =19.63cum Deduct for pipes of average 250 mm dia =1x40.26x(22/7)/4x(0.274)x(0.274) =2.37cum Total =17.26cum LABOUR				
2.8.1	Rate as per Item No.2.8.1 of SH: EARTH WORK	cum	17.26	286.85	4951.03 A
2.25	Rate as per Item No.2.25 of				

	SH: EARTH WORK	cum	17.26	253.95	4383.18 A
0761	Fuel wood	quintal	1.03	500.00	515.00
0771	Kerosene oil	litre	1.14	50.00	57.00
0117	Assistant Fitter or 2nd class Fitter	day	1.30	714.00	928.20
0114	Beldar	day	7.50	645.00	4837.50
9977	Carriage	L.S.	80.73	2.12	171.15
	TOTAL				15843.06 W
	Add 1 % Water charges on "W-A"				65.09
	TOTAL				15908.14 X
	Add GST on "X-A" (multiplying factor 0.1405)				923.64
	TOTAL				16831.78 Y
	Add 15% CPOH on "Y-A"				1124.64
	TOTAL				17956.42 Z
	Add Cess @ 1% on "Z-A"				86.22
	Cost of 40.26 metre				18042.64
	Cost of 1.00 metre				448.15
	Say				448.15
	FOR DPA 30% LESS				**313.705**

15.32.3 Above 300 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 40.26 metre or 11 nos joints				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	1x40.26x0.85x0.75 m =25.67cum				
	Deduct for pipes of average 450 mm dia =1x40.26x(22/7)/4x(0.48)x(0.48) =7.29cum				
	Total =18.38cum				
	LABOUR				
2.8.1	Rate as per Item No.2.8.1 of SH: EARTH WORK	cum	18.38	286.85	5272.30 A
2.25	Rate as per Item No.2.25 of SH: EARTH WORK	cum	18.38	253.95	4667.60 A
0761	Fuel wood	quintal	1.40	500.00	700.00
0771	Kerosene oil	litre	2.27	50.00	113.50
0117	Assistant Fitter or 2nd class Fitter	day	2.25	714.00	1606.50
0114	Beldar	day	11.50	645.00	7417.50
9988	Carriage and sundries	L.S.	134.55	2.12	285.25
	TOTAL				20062.65 W
	Add 1 % Water charges on "W-A"				101.23
	TOTAL				20163.88 X
	Add GST on "X-A" (multiplying factor 0.1405)				1436.47
	TOTAL				21600.35 Y
	Add 15% CPOH on "Y-A"				1749.07
	TOTAL				23349.41 Z
	Add Cess @ 1% on "Z-A"				134.10
	Cost of 40.26 metre				23483.51
	Cost of 1.00 metre				583.30
	Say				583.30
	FOR DPA 30% LESS				**408.31**

15.33 Dismantling steel cylinder R.C. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metres lead as per direction of Engineer-in-charge :

15.33.1 Up to 600 mm diameter

Code	Description	Unit	Quantity	Rate	Amount

	Detail of cost for 40.26 metre or 11 nos joints				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	1x40.26x1.30x1.65 m =86.36cum				
	Deduct for pipes of average 450 mm dia				
	=1x40.26x(22/7)/4x(0.48)x(0.48)				
	=7.29cum				
	Total=79.07cum				
	LABOUR				
0114	Beldar	day	5.32	645.00	**3431.40**
0115	Coolie	day	5.46	645.00	**3521.70**
0101	Bhisti	day	0.31	714.00	**221.34**
0761	Fuel wood	quintal	1.40	500.00	**700.00**
0771	Kerosene oil	litre	2.27	50.00	**113.50**
0117	Assistant Fitter or 2nd class Fitter	day	2.25	714.00	**1606.50**
0114	Beldar	day	11.50	645.00	**7417.50**
9988	Carriage and sundries	L.S.	134.55	2.12	**285.25**
	TOTAL				**17297.19**
	Add 1 % Water charges on "W"				**172.97**
	TOTAL				**17470.16**
	Add GST on "X" (multiplying factor 0.1405)				**2454.56**
	TOTAL				**19924.72**
	Add 15% CPOH on "Y"				**2988.71**
	TOTAL				**22913.42**
	Add Cess @ 1% on "Z"				**229.13**
	Cost of 40.26 metre				**23142.56**
	Cost of 1.00 metre				**574.83**
	Say				**574.85**
	FOR DPA 30% LESS				**402.395**
15.33.2	**Above 600 mm diameter**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Detail of cost for 40.26 metre or 11 nos joints				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	1x40.26x1.30x1.65 m =86.36cum				
	Deduct for pipes of average 900 mm dia				
	=1x40.26x(22/7)/4x(1.00)x(1.00)				
	=31.63cum				
	Total=54.73cum				
	LABOUR				
0114	Beldar	day	15.82	645.00	**10203.90**
0115	Coolie	day	16.25	645.00	**10481.25**
0101	Bhisti	day	0.93	714.00	**664.02**
0761	Fuel wood	quintal	3.08	500.00	**1540.00**
0771	Kerosene oil	litre	5.00	50.00	**250.00**
0117	Assistant Fitter or 2nd class Fitter	day	10.00	714.00	**7140.00**
0114	Beldar	day	20.00	645.00	**12900.00**
9988	Carriage and sundries	L.S.	179.40	2.12	**380.33**
	TOTAL				**43559.50**
	Add 1 % Water charges on "W"				**435.59**
	TOTAL				**43995.09**
	Add GST on "X" (multiplying factor 0.1405)				**6181.31**
	TOTAL				**50176.40**
	Add 15% CPOH on "Y"				**7526.46**
	TOTAL				**57702.86**

	Add Cess @ 1% on "Z"				**577.03**
	Cost of 40.26 metre				**58279.89**
	Cost of 1.00 metre				**1447.59**
	Say				**1447.60**
	FOR DPA 30% LESS				**1013.32**

15.34 Dismantling asbestos cement pressure pipes including excavation and refilling trenches after taking out the pipes manually/ by mechanical means and stacking the pipes within 50 metres lead as per direction of Engineer- in-charge :

15.34.1 Up to 150 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 metre or 11 nos joints				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	10.00x0.55x0.75 m =4.125cum				
	Deduct for pipes of average 100 mm dia				
	=1x10x(22/7)/4x(0.118)x(0.118)				
	=0.109cum				
	Total=4.016cum				
	LABOUR				
0114	Beldar	day	1.16	645.00	**748.20**
0115	Coolie	day	1.19	645.00	**767.55**
0101	Bhisti	day	0.07	714.00	**49.98**
0114	Beldar	day	0.36	645.00	**232.20**
0115	Coolie	day	0.38	645.00	**245.10**
9988	Carriage and sundries	L.S.	1.56	2.12	**3.31**
	TOTAL				**2046.34**
	Add 1 % Water charges on "W"				**20.46**
	TOTAL				**2066.80**
	Add GST on "X" (multiplying factor 0.1405)				**290.39**
	TOTAL				**2357.19**
	Add 15% CPOH on "Y"				**353.58**
	TOTAL				**2710.76**
	Add Cess @ 1% on "Z"				**27.11**
	Cost of 10.00 metre				**2737.87**
	Cost of 1.00 metre				**273.79**
	Say				**273.80**
	FOR DPA 30% LESS				**191.66**

15.34.2 Above 150 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 metre or 11 nos joints				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	10.00x0.65x0.75 m =4.88cum				
	Deduct for pipes of average 250 mm dia				
	=1x10x(22/7)/4x(0.274)x(0.274)				
	=0.590cum				
	Total=4.29cum				
	LABOUR				
0114	Beldar	day	1.24	645.00	**799.80**
0115	Coolie	day	1.28	645.00	**825.60**
0101	Bhisti	day	0.07	714.00	**49.98**
0114	Beldar	day	0.36	645.00	**232.20**
0115	Coolie	day	0.88	645.00	**567.60**
9988	Carriage and sundries	L.S.	3.77	2.12	**7.99**

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				**2483.17**
	Add 1 % Water charges on "W"				**24.83**
	TOTAL				**2508.00**
	Add GST on "X" (multiplying factor 0.1405)				**352.37**
	TOTAL				**2860.38**
	Add 15% CPOH on "Y"				**429.06**
	TOTAL				**3289.44**
	Add Cess @ 1% on "Z"				**32.89**
	Cost of 10.00 metre				**3322.33**
	Cost of 1.00 metre				**332.23**
	Say				**332.25**
	FOR DPA 30% LESS				**232.575**

15.35 Taking out C.I. cover with frame from R.C.C. top slab of manholes of various sizes including demolishing of R.C.C. work manually/ by mechanical means and stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
0114 0115 9999	Details of cost for 1 man hole Demolition of R.C.C. slab 1.3x1.2x 0.15 m =0.234cum Less cover 0.61x0.455x0.15 m =0.042cum Net Quantity =0.192cum LABOUR Beldar Coolie Removel of C.I. Cover with frame including stacking	day day L.S.	0.50 0.14 1.30	645.00 645.00 2.12	322.50 90.30 2.76

Code	Description	Unit	Quantity	Rate	Amount
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				430.71 W
	Add 1 % Water charges on "W"				4.31
	TOTAL				435.02 X
	Add GST on "X" (multiplying factor 0.1405)				61.12
	TOTAL				496.14 Y
	Add 15% CPOH on "Y"				74.42
	TOTAL				570.56 Z
	Add Cess @ 1% on "Z"				5.71
	Cost of each				576.27
	Say				576.25
	FOR DPA 30% LESS				**403.375**

15.36 Taking out C.I. cover with frame from R.C.C. top slab of inspection chambers of various sizes including demolishing of R.C.C. work manually/ by mechanical means and stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 man hole				
	Demolition of R.C.C. slab				
	1.1x0.9x0.15 m =0.148cum				
	Less cover 0.61x0.455x0.15 m				
	=0.042cum				
	=0.106cum Say 0.11cum				
	LABOUR				
0114	Beldar	day	0.29	645.00	**187.05**
0115	Coolie	day	0.08	645.00	**51.60**
9999	Removel of C.I. Cover with frame				**0.00**
	including stacking	L.S.	0.65	2.12	**1.38**
9999	Sundries	L.S.	5.33	2.12	**11.30**
	TOTAL				**251.33**
	Add 1 % Water charges on "W"				**2.51**
	TOTAL				**253.84**

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X" (multiplying factor 0.1405)				**35.66**
	TOTAL				**289.51**
	Add 15% CPOH on "Y"				**43.43**
	TOTAL				**332.93**
	Add Cess @ 1% on "Z"				**3.33**
	Cost of each				**336.26**
	Say				**336.25**
	FOR DPA 30% LESS				**235.375**

15.37 Dismantling of R.C.C. spun vent shaft including excavating the cement concrete pit completely, taking out the shaft, refilling the excavated gap, stacking the useful materials near the site and disposal of unserviceable materials within 50 metres lead.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for each				
	Dismantling cement concrete 1:4:8 0.90x0.90x1.35m =1.094cum				
	Less shaft 1/4x22/7x(0.450)x(0.450)x 1.10 m =0.175cum				
	=0.919cum Say 0.92cum				
	Dismantling cement concrete 1:2:4 0.90x0.90x0.15m =0.122cum				
	Less shaft 1/4x22/7x0.15x0.45 m =0.024cum				
	=0.098cum Say 0.10cum				
	LABOUR				
0114	Beldar	day	0.81	645.00	**522.45**
0115	Coolie	day	0.51	645.00	**328.95**
9999	Sundries	L.S.	1.82	2.12	**3.86**
0114	Beldar	day	0.16	645.00	**103.20**
0115	Coolie	day	0.07	645.00	**45.15**
9999	Sundries	L.S.	0.52	2.12	**1.10**
0130	Mistry	day	0.25	784.00	**196.00**
0123	Mason (brick layer) 1st class	day	0.12	784.00	**94.08**
0124	Mason (brick layer) 2nd class	day	0.12	714.00	**85.68**
0100	Bandhani	day	1.00	714.00	**714.00**
0114	Beldar	day	1.00	645.00	**645.00**
9999	Sundries for scaffolding etc	L.S.	53.82	2.12	**114.10**
	TOTAL				**2853.57**
	Add 1 % Water charges on "W"				**28.54**
	TOTAL				**2882.10**
	Add GST on "X" (multiplying factor 0.1405)				**404.94**
	TOTAL				**3287.04**
	Add 15% CPOH on "Y"				**493.06**
	TOTAL				**3780.10**
	Add Cess @ 1% on "Z"				**37.80**
	Cost of each				**3817.90**
	Say				**3817.90**
	FOR DPA 30% LESS				**2672.53**

15.38 Dismantling of road gully chamber of various sizes including C.I. grating with frame including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead including refilling the excavated gap.

Code	Description	Unit	Quantity	Rate	Amount

	Detail of cost for one chamber Dismantling cement concrete a) 1:5:10 1.05x1.00x0.15m =0.16cum Dismantling brick work in cement mortar 2.70x0.20x0.45m =0.24cum Dismantling cement concrete b) 1:2:4 2.70x0.20x0.15m =0.08cum LABOUR				
0114	Beldar	day	0.14	645.00	**90.30**
0115	Coolie	day	0.09	645.00	**58.05**
9999	Sundries	L.S.	0.26	2.12	**0.55**
0114	Beldar	day	0.25	645.00	**161.25**
0115	Coolie	day	0.22	645.00	**141.90**
9999	Sundries	L.S.	0.52	2.12	**1.10**
0114	Beldar	day	0.13	645.00	**83.85**
0115	Coolie	day	0.06	645.00	**38.70**
9999	Sundries for scaffolding etc	L.S.	0.39	2.12	**0.83**
9999	Dismantling C.I. Grating	L.S.	7.15	2.12	**15.16**
	TOTAL				**591.69**
	Add 1 % Water charges on "W"				**5.92**
	TOTAL				**597.61**
	Add GST on "X" (multiplying factor 0.1405)				**83.96**
	TOTAL				**681.57**
	Add 15% CPOH on "Y"				**102.24**
	TOTAL				**783.80**
	Add Cess @ 1% on "Z"				**7.84**
	Cost of each				**791.64**
	Say				**791.65**
	FOR DPA 30% LESS				**554.155**

15.39 Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for each				
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	**196.00**
0114	Beldar	day	0.50	645.00	**322.50**
9999	Sundries	L.S.	17.94	2.12	**38.03**
	TOTAL				**556.53**
	Add 1 % Water charges on "W"				**5.57**
	TOTAL				**562.10**
	Add GST on "X" (multiplying factor 0.1405)				**78.97**
	TOTAL				**641.07**
	Add 15% CPOH on "Y"				**96.16**
	TOTAL				**737.23**
	Add Cess @ 1% on "Z"				**7.37**
	Cost of each				**744.61**
	Say				**744.60**
	FOR DPA 30% LESS				**521.22**

15.40 Dismantling of C.I. sluice valve including stacking of useful materials within a lead of 50 metres

15.40.1 Up to 150 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for dismantling 10 sluice valves (ave.) 100mm				
	LABOUR				

0116	Fitter (grade 1)	day	0.60	784.00	**470.40**
0117	Assistant Fitter or 2nd class Fitter	day	0.40	714.00	**285.60**
0114	Beldar	day	1.60	645.00	**1032.00**
9999	Sundries for removing the R.C.C. cover				**0.00**
	etc for dismantling sluice valve	L.S.	89.70	2.12	**190.16**
	TOTAL				**1978.16**
	Add 1 % Water charges on "W"				**19.78**
	TOTAL				**1997.95**
	Add GST on "X" (multiplying factor 0.1405)				**280.71**
	TOTAL				**2278.66**
	Add 15% CPOH on "Y"				**341.80**
	TOTAL				**2620.46**
	Add Cess @ 1% on "Z"				**26.20**
	Cost of 10 Nos				**2646.66**
	Cost of each				**264.67**
	Say				**264.65**
	FOR DPA 30% LESS				**185.255**

15.40.2 Above 150 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for dismantling 10 sluice valves (ave.) 250mm				
	LABOUR				
0116	Fitter (grade 1)	day	2.40	784.00	**1881.60**
0117	Assistant Fitter or 2nd class Fitter	day	1.54	714.00	**1099.56**
0114	Beldar	day	6.40	645.00	**4128.00**
9999	Sundries for removing the R.C.C.				**0.00**
	cover etc for dismantling sluice valve	L.S.	89.70	2.12	**190.16**
	TOTAL				**7299.32**
	Add 1 % Water charges on "W"				**72.99**
	TOTAL				**7372.32**
	Add GST on "X" (multiplying factor 0.1405)				**1035.81**
	TOTAL				**8408.13**
	Add 15% CPOH on "Y"				**1261.22**
	TOTAL				**9669.35**
	Add Cess @ 1% on "Z"				**96.69**
	Cost of 10 Nos				**9766.04**
	Cost of each				**976.60**
	Say				**976.60**
	FOR DPA 30% LESS				**683.62**

15.41 Dismantling of spindle fire hydrant including stacking of useful materials within 50 metres lead.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 Nos				
	LABOUR				
0116	Fitter (grade 1)	day	1.50	784.00	**1176.00**
0117	Assistant Fitter or 2nd class Fitter	day	1.00	714.00	**714.00**
0114	Beldar	day	4.00	645.00	**2580.00**
	TOTAL				**4470.00**
	Add 1 % Water charges on "W"				**44.70**
	TOTAL				**4514.70**
	Add GST on "X" (multiplying factor 0.1405)				**634.32**
	TOTAL				**5149.02**
	Add 15% CPOH on "Y"				**772.35**
	TOTAL				**5921.37**
	Add Cess @ 1% on "Z"				**59.21**

	Cost of 10 Nos				**5980.58**
	Cost of each				**598.06**
	Say				**598.05**
	FOR DPA 30% LESS				**418.635**

15.42 Dismantling of cement concrete platform along with curtain walls and base concrete etc. including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead :

15.42.1 120 x 120 cm (outside to outside)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one platform				
	Dismantling cement concrete 1:5:10				
	4.00x0.35x0.12m =0.168cum				
	0.80x0.80x0.075m =0.048cum				
	=0.216cum Say 0.22cum				
	Dismantling brick work in cement mortar				
	4.00x0.20x0.30m =0.24cum				
	4.00x0.10x0.20m =0.088cum				
	=0.328cum Say 0.33cum				
	Dismantling 40 mm C.C. flooring 1:2:4				
	1.00x1.00x0.04m =0.04cum				
	LABOUR				
0114	Beldar	day	0.19	645.00	122.55
0115	Coolie	day	0.12	645.00	77.40
9999	Sundries	L.S.	0.39	2.12	0.83
0114	Beldar	day	0.35	645.00	225.75
0115	Coolie	day	0.30	645.00	193.50
9999	Sundries	L.S.	0.91	2.12	1.93
0114	Beldar	day	0.06	645.00	38.70
0115	Coolie	day	0.03	645.00	19.35

Code	Description	Unit	Quantity	Rate	Amount
9999	Sundries for scaffolding etc	L.S.	0.13	2.12	0.28
	TOTAL				680.28 W
	Add 1 % Water charges on "W"				6.80
	TOTAL				687.08 X
	Add GST on "X" (multiplying factor 0.1405)				96.54
	TOTAL				783.62 Y
	Add 15% CPOH on "Y"				117.54
	TOTAL				901.16 Z
	Add Cess @ 1% on "Z"				9.01
	Cost of each				910.17
	Say				910.15
	FOR DPA 30% LESS				**637.105**

15.42.2 210 x 120 cm (outside to outside)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one platform				
	Dismantling cement concrete 1:5:10				
	5.80x0.35x0.12m =0.243cum				
	0.80x1.70x0.075m =0.102cum				
	=0.345cum Say 0.35cum				
	Dismantling brick work in cement mortar				
	5.80x0.20x0.30m =0.348cum				
	6.20x0.10x0.20m =0.124cum				
	=0.472cum Say 0.47cum				
	Dismantling 40 mm C.C. flooring 1:2:4				
	1.90x1.00x0.04m =0.08cum				
	LABOUR				

Code	Description	Unit	Quantity	Rate	Amount
0114	Beldar	day	0.31	645.00	**199.95**
0115	Coolie	day	0.19	645.00	**122.55**
9999	Sundries	L.S.	0.65	2.12	**1.38**
0114	Beldar	day	0.50	645.00	**322.50**
0115	Coolie	day	0.42	645.00	**270.90**
9999	Sundries	L.S.	1.30	2.12	**2.76**
0114	Beldar	day	0.13	645.00	**83.85**
0115	Coolie	day	0.06	645.00	**38.70**
9999	Sundries for scaffolding etc	L.S.	0.39	2.12	**0.83**
	TOTAL				**1043.41**
	Add 1 % Water charges on "W"				**10.43**
	TOTAL				**1053.84**
	Add GST on "X" (multiplying factor 0.1405)				**148.07**
	TOTAL				**1201.91**
	Add 15% CPOH on "Y"				**180.29**
	TOTAL				**1382.20**
	Add Cess @ 1% on "Z"				**13.82**
	Cost of each				**1396.02**
	Say				**1396.00**
	FOR DPA 30% LESS				**977.2**

15.42.3 320 x 120 cm (outside to outside)

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one platform				
	Dismantling cement concrete 1:5:10				
	8.00x0.35x0.12m =0.336cum				
	2.80x0.80x0.075m =0.168cum				
	=0.504cum Say 0.50cum				
	Dismantling brick work in cement mortar				
	8.00x0.20x0.30m =0.48cum				
	8.40x0.10x0.20m =0.168cum				
	=0.648cum Say 0.65cum				
	Dismantling 40 mm C.C. flooring 1:2:4				
	3.00x1.00x0.04m =0.12cum				
	LABOUR				
0114	Beldar	day	0.44	645.00	**283.80**
0115	Coolie	day	0.28	645.00	**180.60**
9999	Sundries	L.S.	0.91	2.12	**1.93**
0114	Beldar	day	0.69	645.00	**445.05**
0115	Coolie	day	0.59	645.00	**380.55**
9999	Sundries	L.S.	1.56	2.12	**3.31**
0114	Beldar	day	0.19	645.00	**122.55**
0115	Coolie	day	0.09	645.00	**58.05**
9999	Sundries for scaffolding etc	L.S.	0.52	2.12	**1.10**
	TOTAL				**1476.94**
	Add 1 % Water charges on "W"				**14.77**
	TOTAL				**1491.71**
	Add GST on "X" (multiplying factor 0.1405)				**209.59**
	TOTAL				**1701.29**
	Add 15% CPOH on "Y"				**255.19**
	TOTAL				**1956.49**
	Add Cess @ 1% on "Z"				**19.56**
	Cost of each				**1976.05**
	Say				**1976.05**
	FOR DPA 30% LESS				**1383.235**

15.43 Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				

Code	Description	Unit	Quantity	Rate	Amount
	LABOUR				
0114	Beldar	day	0.36	645.00	**232.20**
0115	Coolie	day	0.08	645.00	**51.60**
0101	Bhisti	day	0.07	714.00	**49.98**
9999	Sundries for scaffolding etc	L.S.	1.43	2.12	**3.03**
	TOTAL				**336.81**
	Add 1 % Water charges on "W"				**3.37**
	TOTAL				**340.18**
	Add GST on "X" (multiplying factor 0.1405)				**47.80**
	TOTAL				**387.97**
	Add 15% CPOH on "Y"				**58.20**
	TOTAL				**446.17**
	Add Cess @ 1% on "Z"				**4.46**
	Cost of 10.00 sqm				**450.63**
	Cost of 1.00 sqm				**45.06**
	Say				**45.05**
	FOR DPA 30% LESS				**31.535**

15.44 Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in- charge.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0112	Carpenter 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.30	645.00	193.50
9999	Sundries	L.S.	5.38	2.12	11.41
	TOTAL				347.71
	Add 1 % Water charges on "W"				3.48
	TOTAL				351.18
	Add GST on "X" (multiplying factor 0.1405)				49.34
	TOTAL				400.52
	Add 15% CPOH on "Y"				60.08
	TOTAL				460.60
	Add Cess @ 1% on "Z"				4.61
	Cost of 10.00 sqm				465.21
	Cost of 1.00 sqm				46.52
	Say				46.50
	FOR DPA 30% LESS				**32.55**

15.45 Demolishing R.C.C. work by mechanical means and stockpiling at designated locations and disposal of dismantled materials up to a lead of 1 kilometre, stacking serviceable and unserviceable material separately including cutting reinforcement bars.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				
	LABOUR				
0128	Mate	day	0.03	714.00	21.42
	Labour for operating pneumatic tools				0.00
0139	Skilled Beldar (for floor rubbing etc.)	day	0.50	714.00	357.00
0114	Beldar	day	0.50	645.00	322.50
	Labour for cutting reinforcement bars.				0.00
0103	Blacksmith 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	0.50	645.00	322.50
	MACHINERY				0.00
0040	Air compressor 250 cfm with two leads				0.00
	for pneumatic cutters/ hammers.	day	0.125	1600.00	200.00
0039	Tractor with trolley .	day	0.05	1200.00	60.00
0041	Joint cutting machine with 2-3 blades	day	0.125	800.00	100.00

	TOTAL				1740.42
	Add 1 % Water charges on “W”				17.40
	TOTAL				1757.82
	Add GST on “X” (multiplying factor 0.1405)				246.97
	TOTAL				2004.80
	Add 15% CPOH on “Y”				300.72
	TOTAL				2305.52
	Add Cess @ 1% on “Z”				23.06
	Cost of 1 cum				2328.57
	Say				2328.55
	FOR DPA 30% LESS				**1629.985**

15.46 Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilometre, as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				
	LABOUR				
0128	Mate	day	0.01	714.00	7.14
0114	Beldar	day	0.30	645.00	193.50
	MACHINERY				
0039	Tractor with trolley .	day	0.0475	1200.00	57.00
0038	Tractor with ripper attachment.	day	0.002	1200.00	2.40
	TOTAL				260.04 W
	Add 1 % Water charges on "W"				2.60
	TOTAL				262.64 X
	Add GST on "X" (multiplying factor 0.1405)				36.90
	TOTAL				299.54 Y
	Add 15% CPOH on "Y"				44.93
	TOTAL				344.47 Z
	Add Cess @ 1% on "Z"				3.44
	Cost of 1 cum				347.92
	Say				347.90
	FOR DPA 30% LESS				**243.53**

15.47 Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				
2264	Carriage of Rubbish	cum	1.00	163.93	163.93
	TOTAL				163.93 W
	Add 1 % Water charges on “W”				1.64
	TOTAL				165.57 X
	Add GST on “X” (multiplying factor 0.1405)				23.26
	TOTAL				188.83 Y
	Add 15% CPOH on “Y”				28.32
	TOTAL				217.16 Z
	Add Cess @ 1% on “Z”				2.17
	Cost of 1 cum				219.33
	Say				219.35
	FOR DPA 30% LESS				**153.545**

SUB HEAD 16
ROAD WORK

16.1 Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earthwith lead upto 50 metres.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100sqm.				
	(A) preparation of subgrade.				
	Earth work in excavation including dressing etc. 100sqm.x22.5cm (average depth) = 22.5cum.				
	LABOUR				
0128	Mate	day	1.80	714.00	**1285.20**
0115	Coolie	day	18.00	645.00	**11610.00**
0114	Beldar	day	0.27	645.00	**174.15**
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.054	3000.00	**162.00**
0113	Chowkidar	day	0.054	645.00	**34.83**
9999	Sundries	L.S.	6.76	2.12	**14.33**
	(B) Conslidation of subgrade				
	Roller charges (one roller does 1860 sqm. of conosolidation of sub - grade with road roller of 8 to 12 tonne capacity including making good the undulations etc. with earth or quarry spoils etc. and rerolling the subgrade				
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.054	3000.00	**162.00**
0113	Chowkidar	day	0.054	645.00	**34.83**
9999	Sundries	L.S.	6.76	2.12	**14.33**
	TOTAL				**13491.67 W**
	Add 1 % Water charges on “W”				**134.92**
	TOTAL				**13626.59 X**
	Add GST on “X” (multiplying factor 0.1405)				**1914.54**
	TOTAL				**15541.12 Y**
	Add 15% CPOH on “Y”				**2331.17**
	TOTAL				**17872.29 Z**
	Add Cess @ 1% on “Z”				**178.72**
	Cost for 100 sqm.				**18051.02**
	Cost per sqm.				**180.51**
	Say				**180.50**
	FOR DPA 30% LESS				**126.35**

16.2 Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density).

Code	Description	Unit	Quantity	Rate	Amount
0101	LABOUR (Extra to item No.2.3 in Earth work) Bhisti Roller charges (one roller does 1860 sqm. Of consolidation per day of 8 hours and uses 18 litres diesel)	day	0.17	714.00	**121.38**
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.008	3000.00	**24.00**
0113	Chowkidar	day	0.008	645.00	**5.16**
9999	Sundries	L.S.	1.43	2.12	**3.03**
	TOTAL				**153.57 W**
	Add 1 % Water charges on "W"				**1.54**
	TOTAL				**155.11 X**
	Add GST on "X" (multiplying factor 0.1405)				**21.79**
	TOTAL				**176.90 Y**
	Add 15% CPOH on "Y"				**26.53**
	TOTAL				**203.43 Z**
	Add Cess @ 1% on "Z"				**2.03**
	Cost of 10 cum.				**205.47**
	Cost per cum.				**20.55**

	Say				20.55
	FOR DPA 30% LESS				**14.385**

16.3 Supplying and stacking at site.

16.3.1 90 mm to 45 mm size stone aggregate

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum.				
	MATERIAL				
2901	Stone Aggregate (Single size) :				
	100 mm nominal size	cum	0.10	1360.00	**136.00**
2902	Stone Aggregate (Single size) :				
	80 mm nominal size	cum	0.65	1360.00	**884.00**
0291	Stone Aggregate (Single size) :				
	63 mm nominal size	cum	0.25	1000.00	**250.00**
2206	Carriage of Stone aggregate 40 mm				
	nominal size and above	cum	1.00	178.19	**178.19**
	TOTAL				**1448.19 W**
	Add 1 % Water charges on "W"				**14.48**
	TOTAL				**1462.67 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**205.51**
	TOTAL				**1668.18 Y**
	Add 15% CPOH on "Y"				**250.23**
	TOTAL				**1918.40 Z**
	Add Cess @ 1% on "Z"				**19.18**
	Cost for 1 cum				**1937.59**
	Say				**1937.60**
	FOR DPA 30% LESS				**1356.32**

16.3.2 63 mm to 45 mm size stone aggregate

Code	Description	Unit	Quantity	Rate	Amount
2902 0291	Details of cost for 1 cum. MATERIAL Stone Aggregate (Single size) : 80 mm nominal size Stone Aggregate (Single size) : 63 mm nominal size	cum cum	0.10 0.65	1360.00 1000.00	**136.00** **650.00**
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0292	Stone Aggregate (Single size) :				
	50 mm nominal size	cum	0.25	1000.00	**250.00**
2206	Carriage of Stone aggregate 40 mm				
	nominal size and above	cum	1.00	178.19	**178.19**
	TOTAL				**1214.19 W**
	Add 1 % Water charges on "W"				**12.14**
	TOTAL				**1226.33 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**172.30**
	TOTAL				**1398.63 Y**
	Add 15% CPOH on "Y"				**209.79**
	TOTAL				**1608.43 Z**
	Add Cess @ 1% on "Z"				**16.08**
	Cost for 1 cum				**1624.51**
	Say				**1624.50**
	FOR DPA 30% LESS				**1137.15**

16.3.3 53 mm to 22.4 mm size stone aggregate

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum.				
	MATERIAL				
0291	Stone Aggregate (Single size) :				
	63 mm nominal size	cum	0.05	1000.00	**50.00**
0292	Stone Aggregate (Single size) :				
	50 mm nominal size	cum	0.30	1000.00	**300.00**
0293	Stone Aggregate (Single size) :				
	40 mm nominal size	cum	0.65	1300.00	**845.00**
2206	Carriage of Stone aggregate 40 mm				
	nominal size and above	cum	1.00	178.19	**178.19**
	TOTAL				**1373.19 W**
	Add 1 % Water charges on "W"				**13.73**

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				1386.92 X
	Add GST on "X" (multiplying factor 0.1405)				194.86
	TOTAL				1581.78 Y
	Add 15% CPOH on "Y"				237.27
	TOTAL				1819.05 Z
	Add Cess @ 1% on "Z"				18.19
	Cost for 1 cum				1837.24
	Say				1837.25
	FOR DPA 30% LESS				**1286.075**

16.3.4 Stone screening 13.2 mm nominal size (Type A)

Code	Description	Unit	Quantity	Rate	Amount
2910 2911 2903	Details of cost for 1 cum. MATERIAL Stone chippings/ screenings 12.5/13.2 mm nominal size Stone chippings/ screenings 10/ 11.2 mm nominal size Stone chippings/ screenings 4.75 mm nominal size	cum cum cum	0.05 0.80 0.15	1200.00 1200.00 1400.00	60.00 960.00 210.00

Code	Description	Unit	Quantity	Rate	Amount
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.00	163.93	163.93
	TOTAL				1393.93 W
	Add 1 % Water charges on "W"				13.94
	TOTAL				1407.87 X
	Add GST on "X" (multiplying factor 0.1405)				197.81
	TOTAL				1605.67 Y
	Add 15% CPOH on "Y"				240.85
	TOTAL				1846.53 Z
	Add Cess @ 1% on "Z"				18.47
	Cost for one cum.				1864.99
	Say				1865.00
	FOR DPA 30% LESS				**1305.5**

16.3.5 Stone screening 11.2 mm nominal size (Type B)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum.				
	MATERIAL				
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.10	1200.00	120.00
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	0.75	1400.00	1050.00
2904	Stone chippings/ screenings 150 micron nominal size	cum	0.15	1400.00	210.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	163.93	139.34
2267	Carriage of Stone dust	cum	0.15	163.93	24.59
	TOTAL				1543.93 W
	Add 1 % Water charges on "W"				15.44
	TOTAL				1559.37 X
	Add GST on "X" (multiplying factor 0.1405)				219.09
	TOTAL				1778.46 Y
	Add 15% CPOH on "Y"				266.77
	TOTAL				2045.23 Z
	Add Cess @ 1% on "Z"				20.45
	Cost for one cum.				2065.68
	Say				2065.70
	FOR DPA 30% LESS				**1445.99**

16.3.6 Red bajri

Code	Description	Unit	Quantity	Rate	Amount
0304	Details of cost for 1 cum. MATERIAL Bajri	cum	1.00	1000.00	1000.00
Code	Description	Unit	Quantity	Rate	Amount
2311	Carriage of Red bajri	cum	1.00	163.93	163.93

	TOTAL				1163.93 W
	Add 1 % Water charges on "W"				11.64
	TOTAL				1175.57 X
	Add GST on "X" (multiplying factor 0.1405)				165.17
	TOTAL				1340.74 Y
	Add 15% CPOH on "Y"				201.11
	TOTAL				1541.85 Z
	Add Cess @ 1% on "Z"				15.42
	Cost for one cum.				1557.27
	Say				1557.25
	FOR DPA 30% LESS				**1090.075**

16.3.9 Good earth

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum.				
	Excavation :				
	LABOUR				
0114	Beldar	day	0.177	645.00	114.17
0115	Coolie	day	0.167	645.00	107.72
0979	Royalty for good earth	cum	1.00	40.00	40.00
2241	Carriage of Good earth by mechanical transport upto 5 km lead	cum	1.00	204.92	204.92
	TOTAL				466.80 W
	Add 1 % Water charges on "W"				4.67
	TOTAL				471.47 X
	Add GST on "X" (multiplying factor 0.1405)				66.24
	TOTAL				537.71 Y
	Add 15% CPOH on "Y"				80.66
	TOTAL				618.37 Z
	Add Cess @ 1% on "Z"				6.18
	Cost per cum.				624.55
	Say				624.55
	FOR DPA 30% LESS				**437.185**

16.3.10 Moorum

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum.				
	MATERIAL				
0810	Moorum	cum	1.00	500.00	500.00
2265	Carriage of Moorum	cum	1.00	163.93	163.93
	TOTAL				663.93 W
	Add 1 % Water charges on "W"				6.64
	TOTAL				670.57 X
	Add GST on "X" (multiplying factor 0.1405)				94.21
	TOTAL				764.78 Y
	Add 15% CPOH on "Y"				114.72
	TOTAL				879.50 Z
	Add Cess @ 1% on "Z"				8.80
	Cost for one cum.				888.30
	Say				888.30
	FOR DPA 30% LESS				**621.81**

16.4 Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road/ vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.26	645.00	**167.70**
0115	Coolie	day	0.26	645.00	**167.70**
0101	Bhisti	day	0.26	714.00	**185.64**
	Roller charges (one roller does 30 cum consolidation per day of 8 hours and				

	uses 18 litres of diesel oil).				
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.033	3000.00	**99.00**
0113	Chowkidar	day	0.033	645.00	**21.29**
9999	Sundries	L.S.	2.73	2.12	**5.79**
	TOTAL				**647.11 W**
	Add 1 % Water charges on "W"				**6.47**
	TOTAL				**653.58 X**
	Add GST on "X" (multiplying factor 0.1405)				**91.83**
	TOTAL				**745.41 Y**
	Add 15% CPOH on "Y"				**111.81**
	TOTAL				**857.22 Z**
	Add Cess @ 1% on "Z"				**8.57**
	Cost for 1 cum				**865.80**
	Say				**865.80**
	FOR DPA 30% LESS				**606.06**

16.5 Supplying, stacking and Spreading 6 mm thick red bajri, watering and rolling complete including preparation of the surface and rolling.

16.5.1 With road roller/ hand roller

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 6 mm thick and 100 sqm area				
	(A) Supplying and stacking of Red bajri at site.				
	MATERIAL				
0304	Bajri	cum	0.60	1000.00	**600.00**
2311	Carriage of Red bajri	cum	0.60	163.93	**98.36**
	(B) Spreading of red bajri				
	LABOUR				
0114	Beldar	day	0.54	645.00	**348.30**
0101	Bhisti	day	0.54	714.00	**385.56**
	Roller charges (one roller does 1860sqm. consolidation per day of 8 hours and uses 18 litres of diesel oil)				
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.054	3000.00	**162.00**
0113	Chowkidar	day	0.054	645.00	**34.83**
	TOTAL				**1629.05 W**
	Add 1 % Water charges on "W"				**16.29**
	TOTAL				**1645.34 X**
	Add GST on "X" (multiplying factor 0.1405)				**231.17**
	TOTAL				**1876.51 Y**
	Add 15% CPOH on "Y"				**281.48**
	TOTAL				**2157.98 Z**
	Add Cess @ 1% on "Z"				**21.58**
	Cost for 100 sqm.				**2179.56**
	Cost per sqm.				**21.80**
	Say				**21.80**
	FOR DPA 30% LESS				**15.26**

16.6 Brick edging in full brick width and half brick depth including excavation, refilling and disposal of surplus earth lead upto 50 metres.

16.6.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5 including 12% wastage	1000 Nos	0.16	4590.00	**734.40**
2201	Carriage of Bricks	1000 Nos	0.16	437.15	**69.94**
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.17	784.00	**133.28**
0124	Mason (brick layer) 2nd class	day	0.17	714.00	**121.38**

0115	Coolie	day	0.35	645.00	**225.75**
9999	Removal of rubbish	L.S.	17.94	2.12	**38.03**
9999	Sundries	L.S.	8.97	2.12	**19.02**
	TOTAL				**1341.80 W**
	Add 1 % Water charges on "W"				**13.42**
	TOTAL				**1355.22 X**
	Add GST on "X" (multiplying factor 0.1405)				**190.41**
	TOTAL				**1545.63 Y**
	Add 15% CPOH on "Y"				**231.84**
	TOTAL				**1777.47 Z**
	Add Cess @ 1% on "Z"				**17.77**
	Cost for 10 metres				**1795.25**
	Cost per metre				**179.52**
	Say				**179.50**
	FOR DPA 30% LESS				**125.65**

16.7 Brick edging laid lengthwise with half brick depth including excavation, refilling and disposal of surplus earth lead upto 50 metres :

16.7.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5 including 12% wastage	1000 Nos	0.049	4590.00	**224.91**
2201	Carriage of Bricks	1000 Nos	0.049	437.15	**21.42**
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.04	784.00	**31.36**
0124	Mason (brick layer) 2nd class	day	0.04	714.00	**28.56**
0115	Coolie	day	0.09	645.00	**58.05**
9999	Removal of rubbish	L.S.	4.16	2.12	**8.82**
	TOTAL				**373.12 W**
	Add 1 % Water charges on "W"				**3.73**
	TOTAL				**376.85 X**
	Add GST on "X" (multiplying factor 0.1405)				**52.95**
	TOTAL				**429.80 Y**
	Add 15% CPOH on "Y"				**64.47**
	TOTAL				**494.27 Z**
	Add Cess @ 1% on "Z"				**4.94**
	Cost for 10 metre				**499.21**
	Cost per metre				**49.92**
	Say				**49.90**
	FOR DPA 30% LESS				**34.93**

16.8 Scarifying metalled (water-bound) road surface including disposal of rubbish, lead upto 50 m and consolidation of the aggregate received from scarifying with power road roller of 8 to 10 tonne capacity.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100sqm.				
	LABOUR				
0114	Beldar	day	1.35	645.00	**870.75**
0115	Coolie	day	1.08	645.00	**696.60**
	Consolidation of scarified material 100sqm.x50mm = 5cum + Less 20% wastage = 1 cum. = 4 cum.				
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.132	3000.00	**396.00**
0113	Chowkidar	day	0.132	645.00	**85.14**
9999	Sundries	L.S.	5.46	2.12	**11.58**
	TOTAL				**2060.07 W**
	Add 1 % Water charges on "W"				**20.60**
	TOTAL				**2080.67 X**
	Add GST on "X" (multiplying				

	factor 0.1405)				**292.33**
	TOTAL				**2373.00 Y**
	Add 15% CPOH on "Y"				**355.95**
	TOTAL				**2728.95 Z**
	Add Cess @ 1% on "Z"				**27.29**
	Cost for 100 sqm.				**2756.24**
	Cost per sqm.				**27.56**
	Say				**27.55**
	FOR DPA 30% LESS				**19.285**

16.9 Making bajri path including preparation of subgrade, supplying and laying brick aggregate of 50 mm nominal size 7.5 cm deep with blinding material consisting of 12 mm moorum and 12 mm red bajri consolidated with road roller.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100sqm.				
	Earth work in excavation including				
	dressing etc.				
	100x0.075=7.5cum.				
2.6.1	(Rate as per item no.2.6.1 of				
	S.H. Earth work)	cum	7.50	205.45	**1540.88 A**
	Collection and stacking of brick				
	aggregate 53mm nominal size				
	100x0.075 =7.50cum.				
0286	Brick Aggregate (Single size) : 50 mm				
	nominal size	cum	7.50	650.00	**4875.00**
2260	Carriage of Brick aggregate	cum	7.50	178.19	**1336.43**
	Supply staking Red Bajri				
	100x0.012= 1.2 cum				
16.3.8	Rate as per Item Number 16.3.8 of				
	SH: Road Work	cum	1.20	1557.25	**1868.70 A**
	Collection and stacking of moorum at site				
	100x0.012 = 1.20cum.				
16.3.10	Rate as per Item Number 16.3.10 of				
	SH: Road Work	cum	1.20	888.30	**1065.96 A**
	Spreading and consolidation of brick				
	aggregate and blinding material etc.				
	LABOUR				
0114	Beldar	day	1.95	645.00	**1257.75**
0115	Coolie	day	2.63	645.00	**1696.35**
0101	Bhisti	day	1.35	714.00	**963.90**
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.135	3000.00	**405.00**
0113	Chowkidar	day	0.135	645.00	**87.08**
9999	Sundries	L.S.	20.15	2.12	**42.72**
	Spreading of red bajri, watering and				
	rolling				
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.054	3000.00	**162.00**
0113	Chowkidar	day	0.054	645.00	**34.83**
	TOTAL				**15336.58 W**
	Add 1 % Water charges on "W-A"				**108.61**
	TOTAL				**15445.19 X**
	Add GST on "X-A" (multiplying				
	factor 0.1405)				**1541.24**
	TOTAL				**16986.43 Y**
	Add 15% CPOH on "Y-A"				**1876.63**
	TOTAL				**18863.06 Z**
	Add Cess @ 1% on "Z-A"				**143.88**
	Cost for 100 sqm.				**19006.94**
	Cost per sqm.				**190.07**
	Say				**190.05**
	FOR DPA 30% LESS				**133.035**

16.10 Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				

	MATERIAL				
1158	Stone for pitching 15 cm x 22.5 cm	cum	2.25	600.00	**1350.00**
2216	Carriage of Stone blocks white & red sand stone & kota stone slab 2.25x2245/1000 = 5.05 t	tonne	5.05	145.72	**735.89**
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.08	784.00	**846.72**
0124	Mason (brick layer) 2nd class	day	1.08	714.00	**771.12**
0114	Beldar	day	2.15	645.00	**1386.75**
0115	Coolie	day	1.61	645.00	**1038.45**
9999	Sundries	L.S.	6.76	2.12	**14.33**
	TOTAL				**6143.26 W**
	Add 1 % Water charges on "W"				**61.43**
	TOTAL				**6204.69 X**
	Add GST on "X" (multiplying factor 0.1405)				**871.76**
	TOTAL				**7076.45 Y**
	Add 15% CPOH on "Y"				**1061.47**
	TOTAL				**8137.92 Z**
	Add Cess @ 1% on "Z"				**81.38**
	Cost for 10 sqm.				**8219.30**
	Cost per sqm.				**821.93**
	Say				**821.95**
	FOR DPA 30% LESS				**575.365**

16.11 Dry brick pitching half brick thick in drains including supply of bricks and preparing the surface complete :

16.11.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	MATERIAL				
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5	1000 Nos	0.645	4590.00	**2960.55**
2201	Carriage of Bricks	1000 Nos	0.645	437.15	**281.96**
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.40	784.00	**313.60**
0124	Mason (brick layer) 2nd class	day	0.40	714.00	**285.60**
0114	Beldar	day	1.08	645.00	**696.60**
	TOTAL				**4538.31 W**
	Add 1 % Water charges on "W"				**45.38**
	TOTAL				**4583.69 X**
	Add GST on "X" (multiplying factor 0.1405)				**644.01**
	TOTAL				**5227.70 Y**
	Add 15% CPOH on "Y"				**784.16**
	TOTAL				**6011.86 Z**
	Add Cess @ 1% on "Z"				**60.12**
	Cost for 10 sqm.				**6071.98**
	Cost per sqm.				**607.20**
	Say				**607.20**
	FOR DPA 30% LESS				**425.04**

16.12 Cutting road and making good the same including supply of extra quantities of materials i.e. aggregate, moorum screening, red bajri and labour required.

16.12.1 bituminous portion

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.08cum. (road 6 metres wide, 0.6 metre length wise and 0.30m (average depth) volume = 1.08 cum).				
	MATERIAL				
16.3.3	Supplying and stacking stone aggregate 53mm to 24 mm nominal size at site. Rate as per Item Number 16.3.3 of SH: Road Work	cum	0.09	1837.25	165.35 A
	Supplying and stacking red bajri at site				

16.3.8	Rate as per Item Number 16.3.8 of				
	SH: Road Work	cum	0.023	1557.25	35.82 A
	Supplying and stacking moorum at site				
16.3.10	Rate as per Item Number 16.3.10 of				
	SH: Road Work	cum	0.022	888.30	19.54 A
2911	Stone chippings/ screenings				
	10/ 11.2 mm nominal size	cum	0.092	1200.00	110.40
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	0.092	163.93	15.08
0309	Paving bitumen VG-10 of approved				
	quality	tonne	0.011	25614.00	281.75
2211	Carriage of Tar bitumen	tonne	0.011	163.93	1.80
	LABOUR				
	For cutting road and taking out soling				
	and metalling including sorting and				
	screening.				
0114	Beldar	day	0.96	645.00	619.20
0115	Coolie	day	0.48	645.00	309.60
	Relaying soling stone 3.6x0.15				
	=0.54cum.				
0114	Beldar	day	0.24	645.00	154.80
0115	Coolie	day	0.24	645.00	154.80
	Relaying road metal with extra quantity				
	and consolidation to 0.10m, thickness				
	3.6x0.10=0.36cum.				
0114	Beldar	day	0.71	645.00	457.95
0115	Coolie	day	0.48	645.00	309.60
0101	Bhisti	day	0.10	714.00	71.40
	Painting two coats, 3.6sqm. including				
	labour for spreading grit				
0114	Beldar	day	0.48	645.00	309.60
0115	Coolie	day	0.48	645.00	309.60
9999	Barrier, chowkidar, sprayman, mate, etc.	L.S.	40.43	2.12	85.71
	TOTAL				3412.01 W
	Add 1 % Water charges on “W-A”				31.91
	TOTAL				3443.93 X
	Add GST on “X-A” (multiplying				
	factor 0.1405)				452.86
	TOTAL				3896.79 Y
	Add 15% CPOH on “Y-A”				551.41
	TOTAL				4448.20 Z
	Add Cess @ 1% on “Z-A”				42.27
	Cost for 1.08 cum.				4490.47
	Cost per cum.				4157.85
	Say				4157.85
	FOR DPA 30% LESS				**2910.495**

16.12.2 Water bound macadam

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 0.90cum.				
	Consider a road 6 metres wide and				
	0.6m. lengthwise and 0.25m cm				
	average depth =0.90cum.				
	MATERIAL				
	Supplying and stacking stone aggregate				
	53mm to 24mm nominal size at site.				
16.3.3	Rate as per Item Number 16.3.3 of				
	SH: Road Work	cum	0.09	1837.25	165.35 A
	Supplying and stacking red bajri at site				
16.3.8	Rate as per Item Number 16.3.8 of				
	SH: Road Work	cum	0.023	1557.25	35.82 A
	Supplying and stacking moorum at site.				
16.3.10	Rate as per Item Number 16.3.10 of				
	SH: Road Work	cum	0.022	888.30	19.54 A
	LABOUR				
	For cutting road and taking out soling				

	and metalling including sorting and screening.				
0114	Beldar	day	0.48	645.00	309.60
0115	Coolie	day	0.24	645.00	154.80
	For relaying soling stone 3.6x0.15 =0.54cum.				
0114	Beldar	day	0.24	645.00	154.80
0115	Coolie	day	0.24	645.00	154.80
	For relaying road metal with extra quantity and consolidation to 0.10m thickness				
	3.6x0.10=0.36cum.				
0114	Beldar	day	0.48	645.00	309.60
0115	Coolie	day	0.48	645.00	309.60
0101	Bhisti	day	0.10	714.00	71.40
9999	Barrier and chowkidar etc.	L.S.	53.82	2.12	114.10
	TOTAL				1799.41 W
	Add 1 % Water charges on "W-A"				15.79
	TOTAL				1815.20 X
	Add GST on "X-A" (multiplying factor 0.1405)				224.03
	TOTAL				2039.22 Y
	Add 15% CPOH on "Y-A"				272.78
	TOTAL				2312.00 Z
	Add Cess @ 1% on "Z-A"				20.91
	Cost for 0.90 cum.				2332.91
	Cost per cum.				2592.12
	Say				2592.10
	FOR DPA 30% LESS				**1814.47**

16.13 Cutting bajri paths and making good the same including supply of extra quantities of brick aggregate, moorum and red bajri required.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	10x0.075=0.75cum.				
	MATERIAL				
	Supplying and stacking 50mm brick aggregate at site(extra quantity)				
0286	Brick Aggregate (Single size) : 50 mm nominal size	cum	0.19	650.00	123.50
2260	Carriage of Brick aggregate	cum	0.19	178.19	33.86
	Supplying and stacking red bajri at site				
16.3.8	Rate as per Item Number 16.3.8 of SH: Road Work	cum	0.06	1557.25	93.44 A
	Supplying and stacking moorum at site				
16.3.10	Rate as per Item Number 16.3.10 of SH: Road	cum	0.06	888.30	53.30 A
	LABOUR				
	For cutting, sorting out, spreading and consolidation of aggregate				
0114	Beldar	day	1.60	645.00	1032.00
0115	Coolie	day	0.80	645.00	516.00
	TOTAL				1852.09 W
	Add 1 % Water charges on "W-A"				17.05
	TOTAL				1869.14 X
	Add GST on "X-A" (multiplying factor 0.1405)				242.00
	TOTAL				2111.14 Y
	Add 15% CPOH on "Y-A"				294.66
	TOTAL				2405.80 Z
	Add Cess @ 1% on "Z-A"				22.59
	Cost for 10 sqm.				2428.39
	Cost per sqm.				242.84
	Say				242.85
	FOR DPA 30% LESS				**170.00**

16.14 Supplying at site :

16.14.1 R.C.C. Standards post/ struts/rails/ pales of mix 1:1.5:3 (1 cement : 1.5 coarsesand : 3 graded stone aggregate 12.5 mm nominal size) with wooden plugs or 6mm bar nibs wherever required as per direction of Engineer-in- charge (cost of earth works in excavation, concrete works in foundation to be paid separately).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 posts = 0.336cum				
	Cubical contents of one post				
	Area bottom A1 = (15+12.5)/2 x8.75+				
	½x3.14 x(6.25)²				
	=120.31+61.38=181.69sqcm.				
	Area bottom A2 = (10+7.5)/2 x6.25+				
	½x3.14 x(3.75)² sqm				
	= 54.68+22.08 = 76.76 sqcm.				
4.1.2	(A1A2)^½ = 118.10sqcm A1+A2+(A1A2))^½ =				
	0.03766 sqm	cum	0.336	7783.65	2615.31 A
	Volume = (1.05)/3x0.03766				
0114	= 0.01316 cum	day	0.034	645.00	21.93
0101	=0.0132cum.	day	0.067	714.00	47.84
0123	Volume of lower and square portion	day	0.013	784.00	10.19
0124	(16.5x16.5x75) / 100³ = 0.0204cum.	day	0.013	714.00	9.28
0128	Total volume = 0.0132+0.0204 cum	day	0.013	714.00	9.28
	= 0.0336 cum.				
5.22.2	Qty. for 10 post				
	= 0.0336x10 = 0.336cum.	kg	26.44	87.50	2313.50 A
5.9.1	Cement concrete 1:1.5:3 (1 Cement :				
	1.5 Coarse sand : 3 graded stone aggregate	sqm	6.99	307.95	2152.57 A
	12.5mm nominal size) Rate as per item no 4.1.2 of				
0367	S.H. Concrete Work.	tonne	0.05	5000.00	250.00
2209	Extra labour for laying cement concrete in RCC	tonne	0.05	145.72	7.29
0983	work	cum	0.07	900.00	63.00
2261	Beldar Bhisti				
	Mason (brick layer) 1st class Mason (brick layer)	cum	0.07	163.93	11.48
	2nd class Mate				
0114	M.S. Reinforcement 6mm dia. bars 10x4x1.88m =	day	0.05	645.00	32.25
0101	75.20m+	day	0.02	714.00	14.28
0155	10x9x0.50m =45.00m = 120.20m	day	0.64	749.00	479.36
0115	120.20m@0.22kg/m =26.44kg. Rate as per Item	day	0.80	645.00	516.00
0101	No.5.22.2 of	day	0.27	714.00	192.78
	SH: Reinforced cement concrete work Centering				
9999	and shuttering	L.S.	1.95	2.12	4.13
9999	Rate as per item No.5.9.1 of				
	SH : Reinforced cement concrete work 6mm	L.S.	13.26	2.12	28.11
9999	C.Plaster 1:2 (1 Cement :	L.S.	11.57	2.12	24.53
	2 fine sand)				
9977	Details of cost for 9.88 sqm. (0.072)/10x9.88 =	L.S.	53.82	2.12	114.10
9999	0.071	L.S.	12.22	2.12	25.91
	Portland Cement (OPC-43 grade) Carriage of				
	Cement				
	Fine sand (zone IV)				
	Carriage of Fine sand (1 part badarpur sand : 2				
	parts jamuna sand)				
	LABOUR				
	Beldar Bhisti				
	Mason (average) Coolie				
	Bhisti				
	Hire and running charges of mixer Extra for				
	removing burr, cleaning with				
	wire brushes, pock making with pointed tool etc.				
	complete				
	Scaffolding and sundries Carriage of RCC posts				
	Wooden plugs or 6mm bar nibs				

Code	Description	Unit	Quantity	Rate	Amount
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				8971.77 W
	Add 1 % Water charges on “W-A”				18.90
	TOTAL				8990.68 X
	Add GST on “X-A” (multiplying				

	factor 0.1405)				268.26
	TOTAL				9258.93 Y
	Add 15% CPOH on “Y-A”				326.63
	TOTAL				9585.57 Z
	Add Cess @ 1% on “Z-A”				25.04
	Cost for 0.336 cum				9610.61
	Cost for one cum				28603.00
	Say				28603.00
	FOR DPA 30% LESS				**20022.1**

16.14.2 Welded steel wire fabric of required width having rectangular mesh painted with two or more coats of enamel paint of approved shade over a coat of primer (Priming & Painting to be paid for separately).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 27 sqm (209.25 kg).				
	MATERIAL				
	Steel wire fabric 0.9m wide rectangular mesh 75x25mm size weight not less than 7.75kg/sqm. 30x0.9 = 27sqm				
1021	Hard drawn steel wire fabric	sqm	27.00	430.00	11610.00
2314	Carriage of Barbed wire	tonne	0.209	145.72	30.46
	7.75x27=209.25kg=0.209tonne				
	TOTAL				11640.46 W
	Add 1 % Water charges on "W"				116.40
	TOTAL				11756.86 X
	Add GST on "X" (multiplying factor 0.1405)				1651.84
	TOTAL				13408.70 Y
	Add 15% CPOH on "Y"				2011.30
	TOTAL				15420.00 Z
	Add Cess @ 1% on "Z"				154.20
	Cost for 209.25 kg				15574.20
	Cost per kg.				74.43
	Say				74.45
	FOR DPA 30% LESS				**52.115**

16.15 Supplying and fixing turn buckles and straining bolts for barbed wire fencing.

Code	Description	Unit	Quantity	Rate	Amount
1030	Details of cost for one set MATERIAL	each each	1.00	25.00	25.00
1028	Galvanised steel turn buckles Straining bolts	L.S.	1.00	80.00	80.00
9977	Carriage of turn buckles and straining bolts		2.73	2.12	5.79
	Labour for fixing straining bolts and turn buckles				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0103	Blacksmith 2nd class	day	0.10	714.00	71.40
	TOTAL				182.19 W
	Add 1 % Water charges on “W”				1.82
	TOTAL				184.01 X
	Add GST on “X” (multiplying factor 0.1405)				25.85
	TOTAL				209.86 Y
	Add 15% CPOH on “Y”				31.48
	TOTAL				241.34 Z
	Add Cess @ 1% on “Z”				2.41
	Cost per set				243.76
	Say				243.75
	FOR DPA 30% LESS				**170.625**

16.16 Fencing with R.C.C. post placed at required distance, embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire weighing 9.38 kg per 100 metres (minimum), between the two posts fitted and fixed with G.I. staples on wooden plugs or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post (cost of R.C.C. posts, struts, earth work and concrete to be paid for separately) :- Payment to be made per metre cost of total length of barbed wire used.

16.16.1 With G.I. barbed wire

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30m				

	MATERIAL				
	G.I. barbed wire				
	30x9 = 270m +				
	10x6.32 = 63m				
	Total = 333m				
	333m @9.38kg/100m =31.24kg = 0.31q				
1029	Galvanised steel barbed wire	quintal	0.31	5500.00	1705.00
2314	Carriage of Barbed wire	tonne	0.03	145.72	4.37
9999	G.I. staples or binding wire	L.S.	49.40	2.12	104.73
	LABOUR				
	Labour for fixing costs in line, fixing and stretching wire				
0123	Mason (brick layer) 1st class	day	0.12	784.00	94.08
0124	Mason (brick layer) 2nd class	day	0.12	714.00	85.68
0114	Beldar	day	0.50	645.00	322.50
0102	Blacksmith 1st class	day	0.50	784.00	392.00
0103	Blacksmith 2nd class	day	0.50	714.00	357.00
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				3094.02 W
	Add 1 % Water charges on "W"				30.94
	TOTAL				3124.96 X
	Add GST on "X" (multiplying factor 0.1405)				439.06
	TOTAL				3564.02 Y
	Add 15% CPOH on "Y"				534.60
	TOTAL				4098.62 Z
	Add Cess @ 1% on "Z"				40.99
	Cost for 333m				4139.61
	Cost per m				12.43
	Say				12.45
	FOR DPA 30% LESS				**8.715**

16.17 Fencing with angle iron post placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire weighing
9.38 kg per 100 m (minimum), between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concrete work to be paid for separately). Payment to be made per metre cost of total length of barbed wire used.

16.17.1 With G.I. barbed wire

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 333.24 metre				
	MATERIAL				
	G.I. barbed wire				
	30x9 = 270.00m				
	2x10x(12+32)1/2 = 63.24				
	= 333.24m				
	333.24m @ 9.38kg/100m =31.26 kg				
	say 0.31 q				
1029	Galvanised steel barbed wire	quintal	0.31	5500.00	1705.00
2314	Carriage of Barbed wire	tonne	0.031	145.72	4.52
	Supplying and fixing Turn buckle & staple				
16.16	Rate as per Item Number 16.16 of				
	SH: Road Work	each set	10.00	243.75	2437.50 A
9999	G.I. staples	L.S.	49.40	2.12	104.73
	Labour for fixing posts in line and fixing and stretching wire:				
0123	Mason (brick layer) 1st class	day	0.12	784.00	94.08
0124	Mason (brick layer) 2nd class	day	0.12	714.00	85.68
0114	Beldar	day	0.50	645.00	322.50
0102	Blacksmith 1st class	day	0.50	784.00	392.00
0103	Blacksmith 2nd class	day	0.50	714.00	357.00
	TOTAL				5503.01 W
	Add 1 % Water charges on "W-A"				30.66
	TOTAL				5533.66 X
	Add GST on "X-A" (multiplying				

	factor 0.1405)				435.01
	TOTAL				5968.67 Y
	Add 15% CPOH on "Y-A"				529.68
	TOTAL				6498.35 Z
	Add Cess @ 1% on "Z-A"				40.61
	Cost for 333.24m				6538.96
	Cost per m				19.62
	Say				19.60
	FOR DPA 30% LESS				**13.72**

16.18 Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 qunital MATERIAL M.S. angle = 1.00 qtl. Add 5% wastage = 0.05 qtl. Total = =1.05 qtl				
1007	Structurals such as tees, angles channels and R.S. joists	quintal	1.05	4950.00	5197.50
2205	Carriage of Steel	tonne	0.105	145.72	15.30
	LABOUR				
0103	Blacksmith 2nd class	day	0.75	714.00	535.50
0114	Beldar	day	0.50	645.00	322.50
	For spotting, bending of angle and drilling holes etc. :				
0103	Blacksmith 2nd class	day	1.00	714.00	714.00
0114	Beldar	day	1.00	645.00	645.00
9999	Sundries such as drilling bit etc.	L.S.	19.76	2.12	41.89
	TOTAL				7471.69 W
	Add 1 % Water charges on "W"				74.72
	TOTAL				7546.41 X
	Add GST on "X" (multiplying factor 0.1405)				1060.27
	TOTAL				8606.68 Y
	Add 15% CPOH on "Y"				1291.00
	TOTAL				9897.68 Z
	Add Cess @ 1% on "Z"				98.98
	Cost for 1 qunital				9996.66
	Cost of one kg				99.97
	Say				99.95
	FOR DPA 30% LESS				**69.965**

16.19 Welded steel wire fabric fencing with posts of specified material and of standard design placed and embedded in cement concrete blocks 45x45x 60 cm of mix 1:5:10 (1 cement:5 fine sand : 10 graded stone aggregate 40 mm nominal size), every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and struts embedded in cement concrete blocks 70x45x50 cm of the same mix, provided with welded steel wire fabric fixed between the posts fitted and fixed with G.I. staples on wooden plugs or tied to 6 mm bar nibs with G.I. binding wire (cost of posts, welded steel wire fabric, painting, earth work in excavation and concrete to be paid for separately).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 metres i.e. 30x1.20 =36.00sqm				
0123 0124 0114	Labour for fixing posts in line fixing and stretching - welded wire fabric : Mason (brick layer) 1st class Mason (brick layer) 2nd class Beldar	day day day	0.12 0.12 0.50	784.00 714.00 645.00	94.08 85.68 322.50
0102 0103 9999	Blacksmith 1st class Blacksmith 2nd class G.I. staple or binding wire	day day L.S.	0.50 0.50 53.82	784.00 714.00 2.12	392.00 357.00 114.10
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Sundries	L.S.	53.82	2.12	114.10
	TOTAL				1479.46 W
	Add 1 % Water charges on "W"				14.79
	TOTAL				1494.25 X
	Add GST on "X" (multiplying factor 0.1405)				209.94
	TOTAL				1704.19 Y

Code	Description	Unit	Quantity	Rate	Amount
	Add 15% CPOH on "Y"				255.63
	TOTAL				1959.82 Z
	Add Cess @ 1% on "Z"				19.60
	Cost for 36 sqm				1979.42
	Cost per sqm				54.98
	Say				55.00
	FOR DPA 30% LESS				**38.5**

16.20 Engraving letters in hard stone

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 6 letters 8 cm height				
	LABOUR				
	For Engraving stone-				
0126	Mason (for ornamental stone work)				
	1st class	day	0.38	784.00	297.92
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				312.25 W
	Add 1 % Water charges on "W"				3.12
	TOTAL				315.37 X
	Add GST on "X" (multiplying				
	factor 0.1405)				44.31
	TOTAL				359.68 Y
	Add 15% CPOH on "Y"				53.95
	TOTAL				413.64 Z
	Add Cess @ 1% on "Z"				4.14
	Cost of 6 letters of 8cm heights				417.77
	Cost per cm. height per letter				8.70
	Say				8.70
	FOR DPA 30% LESS				**6.09**

16.21 Providing and fixing 15x15x90 cm boundary stone of hard stone with top 30 cm chisel dressed on all four sides including top (cost of excavation, refilling and concrete etc. to be paid for separately).

Code	Description	Unit	Quantity	Rate	Amount
1151	Details of cost for one stone Boundry stone top chisel dressed 15x15x90 cm	each	1.00	80.00	80.00
0114	Labour for fixing Beldar	day	0.12	645.00	77.40
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9977	Carriage to site	L.S.	4.16	2.12	8.82
	TOTAL				166.22 W
	Add 1 % Water charges on "W"				1.66
	TOTAL				167.88 X
	Add GST on "X" (multiplying				
	factor 0.1405)				23.59
	TOTAL				191.47 Y
	Add 15% CPOH on "Y"				28.72
	TOTAL				220.19 Z
	Add Cess @ 1% on "Z"				2.20
	Cost of each.				222.39
	Say				222.40
	FOR DPA 30% LESS				**155.68**

16.22 Providing and fixing 15 cm dia at top, 20 cm at bottom and 90 cm high precast reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) boundary stone as per standard design, including finishing smooth with cement mortar 1:3 (1 cement : 3 fine sand) (cost of excavation, refilling and concreting to be paid for separately).

Code	Description	Unit	Quantity	Rate	Amount
4.1.2	Details of cost for one stone				
	(i) Cement concrete 1:1½:3 (1 cement : 1½ Coarse	cum	0.02	7783.65	155.67 A
0114	sand : 3 graded stone aggregate 20mm nominal size)	day	0.002	645.00	1.29
0101	Volume of frustum of cone:	day	0.004	714.00	2.86
0123	L/3 x [A1+A2+sqrt(A1A2)] = 0.825/3 x	day	0.0008	784.00	0.63
0124	[$0.095^2+0.075^2$ + sqrt(0.095 x 0.075^2)]x	day	0.0008	714.00	0.57
0128	3.142=0.01882 (A)	day	0.0008	714.00	0.57
	Volume of hemi sphere:				
5.22.1	½ x 4 /3 x PI x r^3 = ½x(4/ 3)x(22/7)x				

	0.075³=0.00100 (B) Total volume = A+B = 0.01982 Say 0.02cum Rate as per item no 4.1.2 of S.H. Concrete Work. (ii) Extra for laying cement concerte in RCC work LABOUR Beldar Bhisti Mason (brick layer) 1st class Mason (brick layer) 2nd class Mate (iii) M.S. reinforcement- 6mm dia. Bar 5.99 metre =5.99x0.22 =1.32kg. Rate as per item no. 5.22.1 of SH : RCC work (iv) Centering and shuttering- 1/2x3.142 (0.19+0.15)x0.825 =0.441 + 3.142/4(0.19)² =0.028 + 1/2x4x3.142(0.075)² = 0.035 = 0.504 Say 0.50sqm.	kg	1.32	88.95	117.41 A

Code	Description	Unit	Quantity	Rate	Amount
5.9.1	Rate as per item No.5.9.1 of				
	SH : Reinforced cement concrete work	sqm	0.50	307.95	153.98 A
	(v) 6mm cement plaster 1:3				
	(1 Cement : 3 fine sand)-				
	1/2x3.142 (0.19+0.15)x0.825 =0.44 +				
	3.142/4(0.19)² =0.028 +				
	1/2x4x3.142(0.075)² = 0.035				
	= 0.504				
	Say 0.50sqm.				
	MATERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.0018	5000.00	9.00
2209	Carriage of Cement	tonne	0.0018	145.72	0.26
0983	Fine sand (zone IV)	cum	0.0385	900.00	34.65
2261	Carriage of Fine sand (1 part badarpur				
	sand : 2 parts jamuna sand)	cum	0.0385	163.93	6.31
	Labour for mortar				
0114	Beldar	day	0.0027	645.00	1.74
0101	Bhisti	day	0.0002	714.00	0.14
9999	Hire and running charges of mixer	L.S.	0.10	2.12	0.21
9999	Sundries	L.S.	0.05	2.12	0.11
	Labour for plaster				
0155	Mason (average)	day	0.026	749.00	19.47
0115	Coolie	day	0.038	645.00	24.51
0101	Bhisti	day	0.046	714.00	32.84
9999	Extra for removing burr	L.S.	0.68	2.12	1.44
9999	Scaffolding, sundries etc.	L.S.	0.60	2.12	1.27
	(vi) Labour for fixing				
0114	Beldar	day	0.12	645.00	77.40
9977	Carriage to site	L.S.	4.16	2.12	8.82
	TOTAL				651.16 W
	Add 1 % Water charges on "W-A"				2.24
	TOTAL				653.41 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				31.80
	TOTAL				685.21 Y
	Add 15% CPOH on "Y-A"				38.72
	TOTAL				723.93 Z
	Add Cess @ 1% on "Z-A"				2.97
	Cost of each.				726.90
	Say				726.90
	FOR DPA 30% LESS				**508.83**

16.23 Providing and fixing precast reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) kilometre stone as per standard design, including finishing smooth in 1:3 cement mortar (1 cement : 3 fine sand) but excluding the cost of earth work, concrete in foundation, painting and lettering etc. which shall be paid for separately.

16.23.1 35x111x25 cm size

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for one stone (i) Cement concrete 1:1.5:3 (1 cement :1.5 Coarse sand :3 graded stone aggregate 20mm nominal size) in				
	Kilometre stone				
	0.35x0.25x0.835m = 0.073				
	0.37x0.27x0.10m = 0.010				
	1/2x22/7x(0.175)²x0.25m = 0.012				
	= 0.095cum				
	Say 0.10cum.				
4.1.2	Rate as per item no 4.1.2 of				
	S.H. Concrete Work.	cum	0.10	7783.65	778.37 A
	(ii) Extra for laying cement concrete				
	in RCC work				
0114	Beldar	day	0.01	645.00	6.45
0101	Bhisti	day	0.02	714.00	14.28
0123	Mason (brick layer) 1st class	day	0.004	784.00	3.14
0124	Mason (brick layer) 2nd class	day	0.004	714.00	2.86
0128	Mate	day	0.004	714.00	2.86
	(iii) M.S. reinforcement- 0.10cum @				
	48.06kg/cum. =4.806kg. Say 4.81kg.				
5.22.1	Rate as per item no. 5.22.1 of				
	SH : Reinforced cement concrete work	kg	4.81	88.95	427.85 A
	(iv) Centering and shuttering-				
	(0.35+2x0.25)x0.835 = 0.710 sqm				
	0.35x0.25 = 0.088sqm				
	(0.37+2x0.27)x0.10 = 0.091sqm				
	2x0.37x0.01 = 0.007 sqm				
	2x2x0.25x0.1 = 0.010sqm				
	1/2x3.142/4x(0.35)² = 0.048sqm				
	1/2x0.35x0.25x3.142 = 0.138sqm.				
	= 1.092sqm. Say 1.09 sqm				
5.9.1	Rate as per item No.5.9.1 of				
	SH : Reinforced cement concrete work	sqm	1.09	307.95	335.67 A
	(v) 6mm cement plaster 1:3				
	(1 Cement : 3 fine sand)-				
	Qty. as per centering and shuttering				
	= 1.092sqm				
	0.35x0.835 = 0.292sqm				
	0.37x0.10 = 0.037sqm				
	1/2x3.142/4x(0.35)²= 0.048sqm				
	2x0.37x0.01 = 0.007 sqm				
	= 1.476 sqm Say 1.48 sqm				
0367	Portland Cement (OPC-43 grade)	tonne	0.054	5000.00	270.00
2209	Carriage of Cement	tonne	0.054	145.72	7.87
0983	Fine sand (zone IV)	cum	0.011	900.00	9.90
2261	Carriage of Fine sand (1 part badarpur				
	sand : 2 parts jamuna sand)	cum	0.011	163.93	1.80
	Labour for mortar				
0114	Beldar	day	0.008	645.00	5.16
0101	Bhisti	day	0.0007	714.00	0.50
9999	Hire and running charges of mixer	L.S.	0.03	2.12	0.06
9999	Sundries	L.S.	0.13	2.12	0.28
	Labour for plaster				
0155	Mason (average)	day	0.075	749.00	56.18
0115	Coolie	day	0.111	645.00	71.60
0101	Bhisti	day	0.136	714.00	97.10
9999	Extra for removing burr	L.S.	1.95	2.12	4.13
9999	Scaffolding, sundries etc.	L.S.	1.82	2.12	3.86
	(vi) Labour for fixing				
0114	Beldar	day	0.20	645.00	129.00
9977	Carriage to site	L.S.	13.52	2.12	28.66
	TOTAL				2257.56 W
	Add 1 % Water charges on "W-A"				7.16
	TOTAL				2264.71 X

	Add GST on "X-A" (multiplying factor 0.1405)				101.56
	TOTAL				2366.27 Y
	Add 15% CPOH on "Y-A"				123.66
	TOTAL				2489.93 Z
	Add Cess @ 1% on "Z-A"				9.48
	Cost per stone				2499.41
	Say				2499.40
	FOR DPA 30% LESS				**1749.58**
16.23.2	**50x152.5x25 cm size**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for one stone				
	(i) Cement concrete 1:1.5:3 (1 cement :1.5 Coarse sand :3 graded stone aggregate 20mm nominal size)				
	0.50x0.25x1.145m = 0.143cum. +				
	0.52x0.27x0.13m = 0.018cum. +				
	1/2x22/7x(0.25)²x0.25m = 0.025cum.				
	= 0.186 cum.				
	Say 0.19cum.				
4.1.2	Rate as per item no 4.1.2 of S.H. Concrete Work.	cum	0.19	7783.65	1478.89 A
	(ii) Extra for laying cement concrete in RCC work				
0114	Beldar	day	0.019	645.00	12.26
0101	Bhisti	day	0.038	714.00	27.13
0123	Mason (brick layer) 1st class	day	0.008	784.00	6.27
0124	Mason (brick layer) 2nd class	day	0.008	714.00	5.71
0128	Mate	day	0.008	714.00	5.71
	(iii) M.S. reinforcement-				
	0.19cum @48.06kg/cum. =9.131kg.				
	Say 9.13 kg.				
5.22.1	Rate as per item no. 5.22.1 of SH : Reinforced cement concrete work	kg	9.13	88.95	812.11 A
	(iv) Centering and shuttering-				
	(0.50+2x0.25)x1.145 = 1.145 sqm				
	1/2x(0.25)²x3.142 = 0.098				
	3.142(0.25)x(0.25) =0.196				
	(0.52+2x0.27)x0.13 =0.138				
	2x0.52x0.01 =0.10				
	2x2x0.25x0.01 =0.010				
	1x0.50x0.25 =0.125				
	=1.722sqm. Say 1.72 sqm				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
5.9.1	Rate as per item No.5.9.1 of SH : Reinforced cement concrete work	sqm	1.72	307.95	529.67 A
	(v) 6mm cement plaster 1:3 (1 Cement : 3 fine sand)-				
	Qty. as per centering and shuttering				
	= 1.722sqm. +				
	0.50x1.145 = 0.572 +				
	0.52x0.13 = 0.068sqm. +				
	1/2x(0.25)²x3.142 = 0.098 +				
	2x0.52x001 = 0.010				
	= 2.470sqm Sq. 2.47 sqm.				
	MATERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.09	5000.00	450.00
2209	Carriage of Cement	tonne	0.09	145.72	13.11
0983	Fine sand (zone IV)	cum	0.20	900.00	180.00
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.20	163.93	32.79
	Labour for mortar				
0114	Beldar	day	0.013	645.00	8.39
0101	Bhisti	day	0.001	714.00	0.71
9999	Hire and running charges of mixer	L.S.	0.52	2.12	1.10

9999	Sundries	L.S.	0.26	2.12	0.55
	Labour for plaster				
0155	Mason (average)	day	0.126	749.00	94.37
0115	Coolie	day	0.185	645.00	119.33
0101	Bhisti	day	0.227	714.00	162.08
9999	Extra for removing burr	L.S.	3.38	2.12	7.17
9999	Scaffolding, sundries etc.	L.S.	2.86	2.12	6.06
	(vi) Labour for fixing				
0114	Beldar	day	0.20	645.00	129.00
9977	Carriage to site	L.S.	13.52	2.12	28.66
	TOTAL				4111.09 W
	Add 1 % Water charges on "W-A"				12.90
	TOTAL				4123.99 X
	Add GST on "X-A" (multiplying factor 0.1405)				183.11
	TOTAL				4307.10 Y
	Add 15% CPOH on "Y-A"				222.96
	TOTAL				4530.07 Z
	Add Cess @ 1% on "Z-A"				17.09
	Cost per stone				4547.16
	Say				4547.15
	FOR DPA 30% LESS				**3183.005**

16.23.3 35x93.5x18 cm size

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one stone (i) Cement concrete 1:1.5:3 (1 cement :1.5 Coarse sand :3 graded stone aggregate 20mm nominal size) 0.35x0.18x0.835m = 0.0526 cum. + 0.37x0.20x0.10m = 0.0074 cum. = 0.060 cum.				
4.1.2	Rate as per item no 4.1.2 of				
	S.H. Concrete Work.	cum	0.06	7783.65	467.02 A
	(ii) Extra for laying cement concrete in				
	RCC work				
0114	Beldar	day	0.006	645.00	3.87
0101	Bhisti	day	0.012	714.00	8.57
0123	Mason (brick layer) 1st class	day	0.0024	784.00	1.88
0124	Mason (brick layer) 2nd class	day	0.0024	714.00	1.71
0128	Mate	day	0.0024	714.00	1.71
	(iii) M.S. reinforcement-0.06cum @				
	48.06kg/cum. =2.8836 kg. Say 2.88 kg.				
5.22.1	Rate as per item no. 5.22.1 of				
	SH : Reinforced cement concrete work	kg	2.88	88.95	256.18 A
	(iv) Centering and shuttering-				
	(0.35+2x0.18)x0.835 = 0.593 sqm				
	(0.37+2x0.20)x0.10 = 0.077 sqm				
	2x0.35x0.18 = 0.126 sqm				
	2x0.37x0.01 = 0.007sqm				
	2x2x0.18x0.01 = 0.007sqm				
	= 0.810 sqm				
5.9.1	Rate as per item No.5.9.1 of				
	SH : Reinforced cement concrete work	sqm	0.81	307.95	249.44 A
	(v) 6mm cement plaster				
	1:3 (1 Cement :3 fine sand)-				
	Qty. as per centering and shuttering				
	= 0.810sqm				
	0.35x0.835 = 0.292sqm				
	0.37x0.10 =0.037sqm				
	2x0.37x0.01 =0.007sqm				
	= 1.146 sqm Say 1.15sqm				
	MATERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.042	5000.00	210.00
2209	Carriage of Cement	tonne	0.042	145.72	6.12
0983	Fine sand (zone IV)	cum	0.009	900.00	8.10
2261	Carriage of Fine sand (1 part badarpur				

Code	Description	Unit	Quantity	Rate	Amount
	sand : 2 parts jamuna sand)	cum	0.009	163.93	1.48
	Labour for mortar				
0114	Beldar	day	0.006	645.00	3.87
0101	Bhisti	day	0.0006	714.00	0.43
9999	Hire and running charges of mixer	L.S.	0.26	2.12	0.55
9999	Sundries	L.S.	0.13	2.12	0.28
	Labour for plaster				
0155	Mason (average)	day	0.058	749.00	43.44
0115	Coolie	day	0.086	645.00	55.47
0101	Bhisti	day	0.105	714.00	74.97
9999	Extra for removing burr	L.S.	1.56	2.12	3.31
9999	Scaffolding, sundries etc.	L.S.	1.30	2.12	2.76
	(vi) Labour for fixing				
0114	Beldar	day	0.10	645.00	64.50
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9977	Carriage to site	L.S.	13.52	2.12	28.66
	TOTAL				1494.31 W
	Add 1 % Water charges on "W-A"				5.22
	TOTAL				1499.53 X
	Add GST on "X-A" (multiplying factor 0.1405)				74.03
	TOTAL				1573.55 Y
	Add 15% CPOH on "Y-A"				90.14
	TOTAL				1663.69 Z
	Add Cess @ 1% on "Z-A"				6.91
	Cost of each				1670.60
	Say				1670.60
	FOR DPA 30% LESS				**1169.42**

16.24 Surface dressing on new surface with paving bitumen of grade VG - 10 of approved quality using 2.25 kg of bitumen per sqm with 1.65 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity etc. complete:

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm.				
	MATERIAL				
	Bitumen S-90@2.25kg per sqm. =225 kg = 0.225 tonne.				
0309	Paving bitumen VG-10 of approved quality	tonne	0.225	25614.00	5763.15
2211	Carriage of Tar bitumen	tonne	0.225	163.93	36.88
	Stone aggregate 13.2mm nominal size @ 1.65cum. per 100sqm.				
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.65	1200.00	1980.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.65	163.93	270.48
	Steam coal for heating bitumen @ 2 quintal per tonne of bitumen = 2x0.225=0.450q				
0370	Coal (steam)	quintal	0.45	440.00	198.00
2200	Carriage of steam coal	tonne	0.045	187.35	8.43
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate				
	(a) For cleaning :				
0128	Mate	day	0.11	714.00	78.54
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating and spraying bitumen :				
0130	Mistry	day	0.08	784.00	62.72
0138	Sprayer (for bitumen, tar etc.)	day	0.11	714.00	78.54
0114	Beldar	day	0.93	645.00	599.85
	(c) For screening and spreading aggregate :				
0128	Mate	day	0.11	714.00	78.54

0114	Beldar	day	0.93	645.00	599.85
0115	Coolie	day	1.55	645.00	999.75
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler				
	900 to 1400 litres	day	0.12	800.00	96.00
0007	Hire charges of Coaltar Sprayer	day	0.11	350.00	38.50
	(e) Misc:				
0364	Wire brush	each	0.11	20.00	2.20
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				13315.19 W
	Add 1 % Water charges on "W"				133.15
	TOTAL				13448.34 X
	Add GST on "X" (multiplying factor 0.1405)				1889.49
	TOTAL				15337.84 Y
	Add 15% CPOH on "Y"				2300.68
	TOTAL				17638.51 Z
	Add Cess @ 1% on "Z"				176.39
	Cost for 100 Sqm.				17814.90
	Cost per Sqm.				178.15
	Say				178.15
	FOR DPA 30% LESS				**124.705**

16.25 Surface dressing on new surface in two coats with bitumen of grade VG -10 of approved quality using 1.8 kg of bitumen per sqm with 1.5 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface for first coat and 1.1 kg. of bitumen per sqm with 1.00 cu. metre of stone chippings 11.2 mm nominal size per 100 sqm of road surface for second coat, including consolidation of each coat separately with road roller of 6 to 8 tonne capacity etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
0309	Details of cost for 100 sqm. MATERIAL				
2211	Bitumen S-90/A-90 @ 1.8kg/sqm.				
2910	=180kg.=0.18 tonne				
2202	Paving bitumen VG-10 of approved quality		0.18	25614.00	4610.52
0370	Carriage of Tar bitumen	tonne	0.18	163.93	29.51
	Stone chippings/ screenings 12.5/	tonne	1.50	1200.00	1800.00
	13.2 mm nominal size	cum cum	1.50	163.93	245.90
	Carriage of Stone aggregate below 40 mm nominal size	quintal	0.36	440.00	158.40
	Steam coal for heating bitumen @ 2 qunital per tonne				
	Coal (steam)				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
2200	Carriage of steam coal	tonne	0.036	187.35	6.74
	Labour for cleaning the road surface,				
	heating and spraying bitumen and				
	aggregate				
	(a) For cleaning :				
0128	Mate	day	0.11	714.00	78.54
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating and spraying bitumen :				
0130	Mistry	day	0.08	784.00	62.72
0138	Sprayer (for bitumen, tar etc.)	day	0.11	714.00	78.54
0114	Beldar	day	1.38	645.00	890.10
	(c) For screening and spreading				
	aggregate :				
0128	Mate	day	0.27	714.00	192.78
0114	Beldar	day	0.85	645.00	548.25
0115	Coolie	day	0.85	645.00	548.25
	(d) Consolidation Charges				
0113	Chowkidar	day	0.11	645.00	70.95

0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler				
	900 to 1400 litres	day	0.12	800.00	96.00
0007	Hire charges of Coaltar Sprayer	day	0.11	350.00	38.50
	(e) Misc:				
0364	Wire brush	each	0.11	20.00	2.20
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	16.38	2.12	34.73
	Second Coat				
	MATERIAL				
	Bitumen S-90/A-90 @ 1.10kg per sqm				
	= 110kg.=0.11 tonne				
0309	Paving bitumen VG-10 of approved				
	quality	tonne	0.11	25614.00	2817.54
2911	Stone chippings/ screenings				
	10/ 11.2 mm nominal size	cum	1.00	1200.00	1200.00
2211	Carriage of Tar bitumen	tonne	0.11	163.93	18.03
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	1.00	163.93	163.93
	Steam coal for heating bitumen @				
	2 qunital per tonne of bitumen				
0370	Coal (steam)	quintal	0.22	440.00	96.80
2200	Carriage of steam coal	tonne	0.022	187.35	4.12
	Labour for cleaning the road surface,				
	heating and spraying bitumen and				
	aggregate				
	(a) For cleaning and brushing loose				
	chips:				
0128	Mate	day	0.06	714.00	42.84
0115	Coolie	day	0.97	645.00	625.65
	(b) For heating and spraying bitumen :				
0130	Mistry	day	0.05	784.00	39.20
0138	Sprayer (for bitumen, tar etc.)	day	0.07	714.00	49.98
0114	Beldar	day	0.75	645.00	483.75
	(c) For screening and spreading				
	aggregate :				
0128	Mate	day	0.07	714.00	49.98
0114	Beldar	day	0.62	645.00	399.90
0115	Coolie	day	0.62	645.00	399.90
	(d) Consolidation Charges				
0113	Chowkidar	day	0.15	645.00	96.75
0101	Bhisti	day	0.06	714.00	42.84
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.06	3000.00	180.00
0007	Hire charges of Coaltar Sprayer	day	0.07	350.00	24.50
0001	Hire charges of Coaltar Boiler				
	900 to 1400 litres	day	0.06	800.00	48.00
	(e) Misc:				
0364	Wire brush	each	0.03	20.00	0.60
	(with thick wire)				
0365	Soft brush	each	0.09	20.00	1.80
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				18534.13 W
	Add 1 % Water charges on "W"				185.34
	TOTAL				18719.47 X
	Add GST on "X" (multiplying				
	factor 0.1405)				2630.09
	TOTAL				21349.55 Y
	Add 15% CPOH on "Y"				3202.43
	TOTAL				24551.99 Z
	Add Cess @ 1% on "Z"				245.52
	Cost for per 100 sqm.				24797.51

	Cost per 1 Sqm.				247.98
	Say				248.00
	FOR DPA 30% LESS				**173.6**

16.26 Surface dressing on old surface with hot bitumen of grade VG - 10 of approved quality using 1.95 kg of bitumen per sqm with 1.50 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity, etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
0309 2911 2211 2202 0370	Details of cost for 100 sqm. MATERIAL Bitumen 1.95kg./sqm.= 195kg. or 0.195t Paving bitumen VG-10 of approved quality Stone chippings/ screenings 10/ 11.2 mm nominal size @ 1.50cum. per 100 sqm. Carriage of Tar bitumen Carriage of Stone aggregate below 40 mm nominal size Steam coal for heating bitumen @2 quintal per tonne of bitumen Coal (steam)	tonne cum tonne cum quintal	0.195 1.50 0.195 1.50 0.39	25614.00 1200.00 163.93 163.93 440.00	4994.73 1800.00 31.97 245.90 171.60

Code	Description	Unit	Quantity	Rate	Amount
2200	Carriage of steam coal	tonne	0.039	187.35	7.31
	Labour for cleaning the road surface,				
	heating and spraying bitumen and				
	aggregate etc.				
	(a) For cleaning :				
0128	Mate	day	0.06	714.00	42.84
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.97	645.00	625.65
	(b) For heating and spraying bitumen :				
0130	Mistry	day	0.05	784.00	39.20
0138	Sprayer (for bitumen, tar etc.)	day	0.06	714.00	42.84
0114	Beldar	day	0.69	645.00	445.05
	(c) For screening and spreading				
	aggregate :				
0128	Mate	day	0.66	714.00	471.24
0114	Beldar	day	0.51	645.00	328.95
0115	Coolie	day	0.51	645.00	328.95
	(d) Consolidation Charges				
0113	Chowkidar	day	0.15	645.00	96.75
0101	Bhisti	day	0.06	714.00	42.84
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.06	3000.00	180.00
0007	Hire charges of Coaltar Sprayer	day	0.06	350.00	21.00
0001	Hire charges of Coaltar Boiler				
	900 to 1400 litres	day	0.06	800.00	48.00
	(e) Misc:				
	Brushes etc. for cleaning				
0364	Wire brush	each	0.05	20.00	1.00
	(with thick wire)				
0365	Soft brush	each	0.12	20.00	2.40
9999	Brooms and gunny bags	L.S.	2.73	2.12	5.79
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				10301.35 W
	Add 1 % Water charges on "W"				103.01
	TOTAL				10404.36 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1461.81
	TOTAL				11866.17 Y
	Add 15% CPOH on "Y"				1779.93
	TOTAL				13646.10 Z
	Add Cess @ 1% on "Z"				136.46
	Cost for 100 sqm.				13782.56
	Cost per Sqm.				137.83
	Say				137.85
	FOR DPA 30% LESS				**96.495**

16.27 Surface dressing one coat on new surface with bitumen of specified grade at a rate of 1.95 kg/sqm of surface area with 1.5 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity , etc. complete :
16.28.1 Using bitumen emulsion (minimum 50% bitumen content- RS grade conforming to IS : 8887)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm.				
	MATERIAL				
0310	Bitumen emulsion	tonne	0.195	30800.00	6006.00
2211	Carriage of Tar bitumen	tonne	0.195	163.93	31.97
2910	Stone chippings/ screenings				
	12.5/ 13.2 mm nominal size	cum	1.50	1200.00	1800.00
	@1.50 cum. per 100 sqm. = 1.50cum				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	1.50	163.93	245.90
	Labour for cleaning the road surface,				
	heating and spraying bitumen and				
	aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.11	714.00	78.54
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For Spraying bitumen emulsion :				
0130	Mistry	day	0.07	784.00	54.88
0138	Sprayer (for bitumen, tar etc.)	day	0.10	714.00	71.40
0114	Beldar	day	1.00	645.00	645.00
	(c) For screening and spreading				
	aggregate :				
0128	Mate	day	0.11	714.00	78.54
0114	Beldar	day	0.85	645.00	548.25
0115	Coolie	day	0.85	645.00	548.25
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.27	714.00	192.78
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.11	3000.00	330.00
0007	Hire charges of Coaltar Sprayer	day	0.10	350.00	35.00
	(e) Misc:				
	Brushes etc. for cleaning				
0364	Wire brush	each	0.11	20.00	2.20
	(with thick wire)				
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				12689.70 W
	Add 1 % Water charges on "W"				126.90
	TOTAL				12816.60 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1800.73
	TOTAL				14617.33 Y
	Add 15% CPOH on "Y"				2192.60
	TOTAL				16809.93 Z
	Add Cess @ 1% on "Z"				168.10
	Cost for 100 sqm.				16978.03
	Cost per Sqm.				169.78
	Say				169.80
	FOR DPA 30% LESS				**118.86**

16.28 Surface dressing one coat on old surface with bitumen of specified grade at the rate of 1.22 kg/ sqm of surface area with 1.10 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity etc. complete :
16.28.1 Using bitumen emulsion (minimum 50% bitumen content- RS grade conforming to IS : 8887)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm.				

	MATERIAL				
	Bitumen emulsion @1.22 kg				
	per Sqm. =122				
	kg. or 0.122 tonne				
0310	Bitumen emulsion	tonne	0.122	30800.00	3757.60
2211	Carriage of Tar bitumen	tonne	0.122	163.93	20.00
	Stone chippings 11.2mm nominal				
	size @ 1.10cum. per 100 sqm				
2911	Stone chippings/ screenings				
	10/ 11.2 mm nominal size	cum	1.10	1200.00	1320.00
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	1.10	163.93	180.32
	Labour for cleaning the road surface,				
	heating and spraying bitumen and				
	aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.06	714.00	42.84
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.97	645.00	625.65
	(b) For Spraying bitumen emulsion :				
0130	Mistry	day	0.05	784.00	39.20
0138	Sprayer (for bitumen, tar etc.)	day	0.06	714.00	42.84
0114	Beldar	day	0.63	645.00	406.35
	(c) For screening and spreading				
	aggregate :				
0128	Mate	day	0.07	714.00	49.98
0114	Beldar	day	0.62	645.00	399.90
0115	Coolie	day	0.62	645.00	399.90
	(d) Consolidation Charges				
0113	Chowkidar	day	0.15	645.00	96.75
0101	Bhisti	day	0.15	714.00	107.10
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.06	3000.00	180.00
0007	Hire charges of Coaltar Sprayer	day	0.06	350.00	21.00
	(e) Misc:				
	Brushes etc. for cleaning				
0364	Wire brush	each	0.11	20.00	2.20
	(with thick wire)				
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	2.73	2.12	5.79
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				8031.17 W
	Add 1 % Water charges on “W”				80.31
	TOTAL				8111.48 X
	Add GST on “X” (multiplying				
	factor 0.1405)				1139.66
	TOTAL				9251.14 Y
	Add 15% CPOH on “Y”				1387.67
	TOTAL				10638.82 Z
	Add Cess @ 1% on “Z”				106.39
	Cost for 100 sqm.				10745.20
	Cost per Sqm.				107.45
	Say				107.45
	FOR DPA 30% LESS				**75.215**

16.29 Providing and applying tack coat using hot straight run bitumen of grade VG - 10, including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing road surface as per specifications :

16.29.1 On W.B.M. @ 0.75 Kg / sqm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm.				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved				
	quality	tonne	0.075	24500.00	1837.50

2211	Carriage of Tar bitumen	tonne	0.075	163.93	12.29
0370	Coal (steam)	quintal	0.15	440.00	66.00
2200	Carriage of steam coal	tonne	0.015	187.35	2.81
	MATERIAL				
0364	Wire brush	each	0.05	20.00	1.00
	(with thick wire)				
0365	Soft brush	each	0.12	20.00	2.40
9999	Gunny bags	L.S.	7.80	2.12	16.54
0007	Hire charges of Coaltar Sprayer	day	0.03	350.00	10.50
9999	Sundries	L.S.	9.10	2.12	19.29
	LABOUR				
	(a) For cleaning :				
0128	Mate	day	0.06	714.00	42.84
0114	Beldar	day	1.46	645.00	941.70
	(b) For heating bitumen:				
0114	Beldar	day	0.19	645.00	122.55
	(c) For applying tack coat:				
0114	Beldar	day	0.47	645.00	303.15
	TOTAL				3378.57 W
	Add 1 % Water charges on “W”				33.79
	TOTAL				3412.36 X
	Add GST on “X” (multiplying factor 0.1405)				479.44
	TOTAL				3891.80 Y
	Add 15% CPOH on “Y”				583.77
	TOTAL				4475.56 Z
	Add Cess @ 1% on “Z”				44.76
	Cost for 100 sqm.				4520.32
	Cost per Sqm.				45.20
	Say				45.20
	FOR DPA 30% LESS				**31.64**
16.29.2	**On bituminous surface @ 0.50 Kg / sqm**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 100 sqm.				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved quality	tonne	0.05	24500.00	1225.00
2211	Carriage of Tar bitumen	tonne	0.05	163.93	8.20
0370	Coal (steam)	quintal	0.10	440.00	44.00
2200	Carriage of steam coal	tonne	0.01	187.35	1.87
	MATERIAL				
0364	Wire brush	each	0.05	20.00	1.00
	(with thick wire)				
0365	Soft brush	each	0.12	20.00	2.40
9999	Gunny bags	L.S.	7.80	2.12	16.54
0007	Hire charges of Coaltar Sprayer	day	0.03	350.00	10.50
9999	Sundries	L.S.	7.80	2.12	16.54
	LABOUR				
	(a) For cleaning :				
0128	Mate	day	0.06	714.00	42.84
0114	Beldar	day	1.46	645.00	941.70
	(b) For heating bitumen:				
0114	Beldar	day	0.19	645.00	122.55
	(c) For applying tack coat:				
0114	Beldar	day	0.47	645.00	303.15
	TOTAL				2736.28 W
	Add 1 % Water charges on "W"				27.36
	TOTAL				2763.64 X
	Add GST on "X" (multiplying factor 0.1405)				388.29
	TOTAL				3151.94 Y
	Add 15% CPOH on "Y"				472.79
	TOTAL				3624.73 Z
	Add Cess @ 1% on "Z"				36.25
	Cost for 100 sqm.				3660.97

	Cost per Sqm.				36.61
	Say				36.60
	FOR DPA 30% LESS				**25.62**

16.30 Providing and applying tack coat using bitumen emulsion conforming to IS:8887, using emulsion pressure distributer including preparing the surface & cleaning with mechanical broom.

16.30.1 With rapid setting bitumen emulsion

16.30.1.1 On W.B.M / W.M.M. @ 0.4kg/sqm

Code	Description	Unit	Quantity	Rate	Amount
7382	Details of cost for 3500 sqm. MATERIAL	tonne	1.40	18250.00	25550.00
2211	Bitumen emulsion rapid setting (R.S.) confirming	tonne	1.40	163.93	229.50
0075	to IS : 8887-1995	hour hour	2.80	450.00	1260.00
0058	Carriage of Tar bitumen MACHINERY		2.80	200.00	560.00
	Road sweeper (Mechamical Broom) @ 1250 sqm.				
	Per hour.				
	Air compressor				

Code	Description	Unit	Quantity	Rate	Amount
0061	Emulsion Pressure Distributor @				
	1750 sqm per hour	hour	2.00	700.00	1400.00
	LABOUR				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				30346.62 W
	Add 1 % Water charges on "W"				303.47
	TOTAL				30650.09 X
	Add GST on "X" (multiplying				
	factor 0.1405)				4306.34
	TOTAL				34956.43 Y
	Add 15% CPOH on "Y"				5243.46
	TOTAL				40199.89 Z
	Add Cess @ 1% on "Z"				402.00
	Cost for 3500 sqm.				40601.89
	Cost per Sqm.				11.60
	Say				11.60
	FOR DPA 30% LESS				**8.12**

16.30.1.2 On bituminous surface @ 0.25kg/sqm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 3500 sqm.				
	MATERIAL				
7382	Bitumen emulsion rapid setting (R.S.)				
	confirming to IS : 8887-1995	tonne	0.875	18250.00	15968.75
2211	Carriage of Tar bitumen	tonne	0.875	163.93	143.44
	MACHINERY				
0075	Road sweeper (Mechamical Broom) @				
	1250 sqm. Per hour.	hour	2.80	450.00	1260.00
0058	Air compressor	hour	2.80	200.00	560.00
0061	Emulsion Pressure Distributor @				
	1750 sqm per hour	hour	2.00	700.00	1400.00
	LABOUR				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				20679.31 W
	Add 1 % Water charges on "W"				206.79
	TOTAL				20886.10 X
	Add GST on "X" (multiplying				
	factor 0.1405)				2934.50
	TOTAL				23820.60 Y
	Add 15% CPOH on "Y"				3573.09
	TOTAL				27393.69 Z
	Add Cess @ 1% on "Z"				273.94
	Cost for 3500 sqm.				27667.63
	Cost per Sqm.				7.91
	Say				7.90
	FOR DPA 30% LESS				**5.53**

16.30.2 With medium setting bitumen emulsion

16.30.2.1 On W.B.M / W.M.M. @ 0.4kg/sqm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 3500 sqm.				
	MATERIAL				
7742	Bitumen emulsion medium setting				
	(M.S.) confirming to IS : 8887-1995	tonne	1.40	27100.00	37940.00
2211	Carriage of Tar bitumen	tonne	1.40	163.93	229.50
	MACHINERY				
0075	Road sweeper (Mechamical Broom) @				
	1250 sqm. Per hour.	hour	2.80	450.00	1260.00
0058	Air compressor	hour	2.80	200.00	560.00
0061	Emulsion Pressure Distributor @				
	1750 sqm per hour	hour	2.00	700.00	1400.00
	LABOUR				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				42736.62 W
	Add 1 % Water charges on "W"				427.37
	TOTAL				43163.99 X
	Add GST on "X" (multiplying				
	factor 0.1405)				6064.54
	TOTAL				49228.53 Y
	Add 15% CPOH on "Y"				7384.28
	TOTAL				56612.81 Z
	Add Cess @ 1% on "Z"				566.13
	Cost for 3500 sqm.				57178.94
	Cost per Sqm.				16.34
	Say				16.35
	FOR DPA 30% LESS				**11.445**

16.30.2.2 On bituminous surface @ 0.25kg/sqm

Code	Description	Unit	Quantity	Rate	Amount
7742	Details of cost for 3500 sqm. MATERIAL	tonne	0.875	27100.00	23712.50
2211	Bitumen emulsion medium setting (M.S.)	tonne	0.875	163.93	143.44
0075	confirming to IS : 8887-1995 Carriage of Tar	hour hour	2.80	450.00	1260.00
0058	bitumen MACHINERY	hour day	2.80	200.00	560.00
0061	Road sweeper (Mechamical Broom) @ 1250 sqm.		2.00	700.00	1400.00
0128	Per hour.		0.08	714.00	57.12
	Air compressor				
	Emulsion Pressure Distributor @ 1750 sqm per				
	hour				
	LABOUR				
	Mate				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				28423.06 W
	Add 1 % Water charges on "W"				284.23
	TOTAL				28707.29 X
	Add GST on "X" (multiplying				
	factor 0.1405)				4033.37
	TOTAL				32740.66 Y
	Add 15% CPOH on "Y"				4911.10
	TOTAL				37651.76 Z
	Add Cess @ 1% on "Z"				376.52
	Cost for 3500 sqm.				38028.28
	Cost per Sqm.				10.87
	Say				10.85
	FOR DPA 30% LESS				**7.595**

16.31 2 cm premix carpet surfacing with 1.8 cum and 0.90 cum of stone chippings of 13.2 mm size and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).

16.31.1 With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt

Code	Description	Unit	Quantity	Rate	Amount

Code	Description	Unit	Quantity	Rate	Amount
2916 2211 2914 2342 2910 2911	Details of cost for 100 sqm. Asphalt 80/100 (i) Hot bitumen @52kg.per cum. of stone chippings 1.8cum. of 13.2mm nominal size chippings. (ii) Hot bitumen @56kg. per cum. of stone chippings 0.90cum. of 11.2mm nominal size chippings. Bitumen :52xl.8+56x0.9=144kg. or 0.144 tonne MATERIAL Paving Asphalt VG 10 of approved quality Carriage of Tar bitumen Solvent 70gms/kg. for 0.144 t = 10.08kg. Solvent Carriage of solvent/ Diesel. Stone chippings/ screenings 12.5/ 13.2 mm nominal size @1.80cum. per 100 sqm Stone chippings/ screenings 10/ 11.2 mm nominal size @0.90cum. per 100 sqm	tonne tonne kilogram quintal cum cum	0.144 0.144 10.08 0.10 1.80 0.90	24500.00 163.93 30.00 16.39 1200.00 1200.00	3528.00 23.61 302.40 1.64 2160.00 1080.00
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	2.70	163.93	442.61
	Steam coal for heating bitumen @				
	2 quintals per tonne of bitumen				
	= 2x0.144=0.288q				
0370	Coal (steam)	quintal	0.288	440.00	126.72
2200	Carriage of steam coal	tonne	0.0288	187.35	5.40
	Labour for cleaning the road surface,				
	heating and spraying bitumen and				
	aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen:				
0114	Beldar	day	0.57	645.00	367.65
	(c) For screening and spreading				
	premixed aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	5.00	645.00	3225.00
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
	(at barrier for night watch and for				
	road roller)				
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to				
	1400 litres	day	0.13	800.00	104.00
0023	Hot Bitumen mixer 0.5 cum i/c				
	hand cart	day	0.04	3500.00	140.00
	(e) Misc:				
0364	Wire brush	each	0.11	20.00	2.20
	(with thick wire)				
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				14144.84 W
	Add 1 % Water charges on “W”				141.45
	TOTAL				14286.29 X
	Add GST on “X” (multiplying				
	factor 0.1405)				2007.22
	TOTAL				16293.51 Y
	Add 15% CPOH on “Y”				2444.03
	TOTAL				18737.54 Z
	Add Cess @ 1% on “Z”				187.38
	Cost for 100 sqm.				18924.92

	Cost per Sqm.				189.25
	Say				189.25
	FOR DPA 30% LESS				**132.475**

16.31.2 With paving Asphalt grade VG - 30 with no solvent

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm.				
	Asphalt 60/70				
	(i) Hot bitumen @52kg.per cum. of				
	stone chippings 1.8cum. of 13.2mm				
	nominal size chippings.				
	(ii) Hot bitumen @56kg. per cum. of				
	stone chippings 0.90cum. of 11.2mm				
	nominal size chippings.				
	Bitumen :52xl.8+56x0.9=144kg. or				
	0.144 tonne				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved				
	quality	tonne	0.144	38150.00	5493.60
2211	Carriage of Tar bitumen	tonne	0.144	163.93	23.61
2910	Stone chippings/ screenings 12.5/				
	13.2 mm nominal size	cum	1.80	1200.00	2160.00
	@1.80cum. per 100sqm.				
2911	Stone chippings/ screenings				
	10/ 11.2 mm nominal size	cum	0.90	1200.00	1080.00
	@0.90cum. per 100sqm				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	2.70	163.93	442.61
	Steam coal for heating of bitumen @				
	2 quintals per tonne of bitumen				
	=2x0.144=0.288q				
0370	Coal (steam)	quintal	0.288	440.00	126.72
2200	Carriage of steam coal	tonne	0.0288	187.35	5.40
	Labour for cleaning the road surface,				
	heating and spraying bitumen and				
	aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen:				
0114	Beldar	day	0.57	645.00	367.65
	(c) For screening and spreading				
	premixed				
	aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	5.00	645.00	3225.00
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler				
	900 to 1400 litres	day	0.13	800.00	104.00
0023	Hot Bitumen mixer 0.5 cum i/c				
	hand cart	day	0.04	3500.00	140.00
	(e) Misc:				
0364	Wire brush	each	0.11	20.00	2.20
	(with thick wire)				
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				15806.40 W
	Add 1 % Water charges on “W”				158.06
	TOTAL				15964.47 X
	Add GST on “X” (multiplying				

	factor 0.1405)				2243.01
	TOTAL				18207.47 Y
	Add 15% CPOH on "Y"				2731.12
	TOTAL				20938.60 Z
	Add Cess @ 1% on "Z"				209.39
	Cost for 100 sqm.				21147.98
	Cost per Sqm.				211.48
	Say				211.50
	FOR DPA 30% LESS				**148.05**

16.31.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm.				
	Refinery Modified Bitumen CRMB 55				
	(i) Hot bitumen @52kg.per cum. of stone chippings 1.8cum. of 13.2mm nominal size chippings.				
	(ii) Hot bitumen @56kg. per cum. of stone chippings 0.90cum. of 11.2mm nominal size chippings.				
	Modified Bitumen CRMB - 55 (Refinary produced) :52xl.8+56x0.9=144kg. or 0.144 tonne				
	MATERIAL				
7739	Modified Bitumen Refinary produced CRMB - 55	tonne	0.144	28000.00	4032.00
2211	Carriage of Tar bitumen	tonne	0.144	163.93	23.61
	Solvent 70gms/kg. for 0.144 t = 10.08kg				
2914	Solvent	kilogram	10.08	30.00	302.40
2342	Carriage of solvent/ Diesel.	quintal	0.10	16.39	1.64
	Stone chippings 13.2mm nominal size @ 1.80cum. per 100sqm.				
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.80	1200.00	2160.00
	@1.80cum. per 100sqm.				
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.90	1200.00	1080.00
	@0.90cum. per 100sqm				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.70	163.93	442.61
	Steam coal for heating bitumen @ 2 quintals per tonne of bitumen = 2x0.144=0.288q				
0370	Coal (steam)	quintal	0.288	440.00	126.72
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
2200	Carriage of steam coal	tonne	0.0288	187.35	5.40
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen:				
0114	Beldar	day	0.57	645.00	367.65
	(c) For screening and spreading premixed aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	5.00	645.00	3225.00
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.13	800.00	104.00

0023	Hot Bitumen mixer 0.5 cum i/c				
	hand cart	day	0.04	3500.00	140.00
	(e) Misc:				
0364	Wire brush	each	0.11	20.00	2.20
	(with thick wire)				
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				14648.84 W
	Add 1 % Water charges on "W"				146.49
	TOTAL				14795.33 X
	Add GST on "X" (multiplying				
	factor 0.1405)				2078.74
	TOTAL				16874.07 Y
	Add 15% CPOH on "Y"				2531.11
	TOTAL				19405.18 Z
	Add Cess @ 1% on "Z"				194.05
	Cost for 100 sqm.				19599.24
	Cost per Sqm.				195.99
	Say				196.00
	FOR DPA 30% LESS				**137.2**

16.32 2.5 cm premix carpet surfacing with 2.25 cum and 1.12 cum of stone chippings of 13.2 mm and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).

16.32.1 With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm.				
	Paving Asphalt 80/100				
	(i) Hot bitumen @52kg.per cum. of				
	stone chippings @2.25cum. of 13.2mm				
	nominal size chippings.				
	(ii) Hot bitumen @56kg. per cum. Of				
	aggregate @1.12cum. of 11.2mm				
	nominal size.				
	Bitumen :52x2.25+56x1.12= 180kg				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved				
	quality	tonne	0.18	24500.00	4410.00
	Solvent 0.07x180=12.60kg.				
2914	Solvent	kilogram	12.6	30.00	378.00
2211	Carriage of Tar bitumen	tonne	0.18	163.93	29.51
2342	Carriage of solvent/ Diesel.	quintal	0.126	16.39	2.07
2910	Stone chippings/ screenings				
	12.5/ 13.2 mm nominal size	cum	2.25	1200.00	2700.00
	@1.80cum. per 100 sqm.				
2911	Stone chippings/ screenings				
	10/ 11.2 mm nominal size	cum	1.12	1200.00	1344.00
	@0.90cum. per 100 sqm				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	3.37	163.93	552.44
	2.25+1.12=3.37 cum				
	Steam coal for heating of bitumen				
	@2 quintals per tonne of bitumen				
	=2x0.18=0.36q				
0370	Coal (steam)	quintal	0.36	440.00	158.40
2200	Carriage of steam coal	tonne	0.036	187.35	6.74
	Labour for cleaning the road surface,				
	heating and spraying bitumen and				
	aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	714.00	57.12

0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen:				
0114	Beldar	day	0.71	645.00	457.95
	(c) For screening and spreading premixed aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	6.25	645.00	4031.25
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.15	800.00	120.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3500.00	140.00
	(e) Misc:				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0364	Wire brush (with thick wire)	each	0.11	20.00	2.20
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				16968.18 W
	Add 1 % Water charges on "W"				169.68
	TOTAL				17137.86 X
	Add GST on "X" (multiplying factor 0.1405)				2407.87
	TOTAL				19545.73 Y
	Add 15% CPOH on "Y"				2931.86
	TOTAL				22477.59 Z
	Add Cess @ 1% on "Z"				224.78
	Cost for 100 sqm.				22702.37
	Cost per Sqm.				227.02
	Say				227.00
	FOR DPA 30% LESS				**158.9**

16.32.2 With paving Asphalt grade VG - 30 with no solvent

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm.				
	Paving Asphalt 60/70				
	(i) Hot bitumen @52kg.per cum. of stone chippings @2.25cum. of 13.2mm nominal size				
	(ii) Hot bitumen @56kg. per cum. of stone aggregate@1.12cum. of 11.2mm nominal size size Bitumen :52x2.25+50xl. 12= 180kg				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality	tonne	0.18	38150.00	6867.00
2211	Carriage of Tar bitumen	tonne	0.18	163.93	29.51
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @2.25cum. per 100sqm	cum	2.25	1200.00	2700.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @1.12cum. per 100sqm	cum	1.12	1200.00	1344.00
2202	Carriage of Stone aggregate below 40 mm nominal size 2.25+1.12=3.37 cum.	cum	3.37	163.93	552.44
0370	Coal (steam)	quintal	0.36	440.00	158.40
2200	Carriage of steam coal	tonne	0.036	187.35	6.74
	Labour for cleaning the road surface, heating and spraying bitumen and				

	aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen:				
0114	Beldar	day	0.71	645.00	457.95
	(c) For cleaning, mixing and spreading				
	pre-mix aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	6.25	645.00	4031.25
	1.05x0.18)/0.267 = 0.71 Nos.				
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to				
	1400 litres	day	0.15	800.00	120.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3500.00	140.00
	(e) Misc:				
0364	Wire brush	each	0.11	20.00	2.20
	(with thick wire)				
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				19045.12 W
	Add 1 % Water charges on "W"				190.45
	TOTAL				19235.57 X
	Add GST on "X" (multiplying				
	factor 0.1405)				2702.60
	TOTAL				21938.16 Y
	Add 15% CPOH on "Y"				3290.72
	TOTAL				25228.89 Z
	Add Cess @ 1% on "Z"				252.29
	Cost for 100 sqm.				25481.18
	Cost per Sqm.				254.81
	Say				254.80
	FOR DPA 30% LESS				**178.36**

16.32.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53

Code	Description	Unit	Quantity	Rate	Amount
7739 2914 2211 2342	Details of cost for 100 sqm. MATERIAL Refinery Modified Bitumen CRMB 55 (i) Hot bitumen @52kg.per cum. of stone chippings @2.25cum. of 13.2mm nominal size chippings. (ii) Hot bitumen @56kg. per cum. Of aggregate @1.12cum. of 11.2mm nominal size. 52x2.25+56x1.12=180kg Modified Bitumen Refinary produced CRMB - 55 Solvent 0.07x180=12.60kg Solvent Carriage of Tar bitumen Carriage of solvent/ Diesel.	tonne kilogram tonne quintal	0.18 12.6 0.18 0.126	28000.00 30.00 163.93 16.39	5040.00 378.00 29.51 2.07
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
2910	Stone chippings/ screenings				
	12.5/ 13.2 mm nominal size	cum	2.25	1200.00	2700.00
	@2.25 cum. per 100sqm				
2911	Stone chippings/ screenings				
	10/ 11.2 mm nominal size	cum	1.12	1200.00	1344.00
	@1.12 cum. per 100sqm				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	3.37	163.93	552.44
	2.25+1.12=3.37 cum.+				
	Steam coal for heating of bitumen @				
	2 quintals per tonne of bitumen				
	=2x0.18=0.36q				

0370	Coal (steam)	quintal	0.36	440.00	158.40
2200	Carriage of steam coal	tonne	0.036	187.35	6.74
	Labour for cleaning the road surface,				
	heating and spraying bitumen and				
	aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen:				
0114	Beldar	day	0.71	645.00	457.95
	(c) For screening and spreading premixed				
	aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	6.25	645.00	4031.25
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to				
	1400 litres	day	0.15	800.00	120.00
0023	Hot Bitumen mixer 0.5 cum i/c				
	hand cart	day	0.04	3500.00	140.00
	(e) Misc:				
0364	Wire brush	each	0.11	20.00	2.20
	(with thick wire)				
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				17598.18 W
	Add 1 % Water charges on "W"				175.98
	TOTAL				17774.16 X
	Add GST on "X" (multiplying				
	factor 0.1405)				2497.27
	TOTAL				20271.43 Y
	Add 15% CPOH on "Y"				3040.71
	TOTAL				23312.15 Z
	Add Cess @ 1% on "Z"				233.12
	Cost for 100 sqm.				23545.27
	Cost per Sqm.				235.45
	Say				235.45
	FOR DPA 30% LESS				**164.815**

16.33 2 cm premix carpet surfacing with 2.4 cum of stone chippings 11.2 mm nominal size per 100 sqm and bitumen emulsion (medium setting min. 65% bitumen content) complying with IS : 8887, using 96 kg per cum of chippings, including consolidation with road roller of 6 to 9 tonne capacity etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm.				
	MATERIAL				
	Bitumen emulsion M.S. @ 96kg				
	per cum. of aggregate				
	96x2.4=230kg =0.230t				
7742	Bitumen emulsion medium setting				
	(M.S.) confirming to IS : 8887-1995	tonne	0.23	27100.00	6233.00
2211	Carriage of Tar bitumen	tonne	0.23	163.93	37.70
2911	Stone chippings/ screenings				
	10/ 11.2 mm nominal size	cum	2.40	1200.00	2880.00
	@ 2.4cum. per 100 sqm				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	2.40	163.93	393.43
	LABOUR				
	(a) For mixing and spreading premix				
	aggregate :				

0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	3.54	645.00	2283.30
	(b) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.11	3000.00	330.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3500.00	140.00
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				12719.20 W
	Add 1 % Water charges on "W"				127.19
	TOTAL				12846.40 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1804.92
	TOTAL				14651.32 Y
	Add 15% CPOH on "Y"				2197.70
	TOTAL				16849.01 Z
	Add Cess @ 1% on "Z"				168.49
	Cost for 100 sqm.				17017.50
	Cost per Sqm.				170.18
	Say				170.20
	FOR DPA 30% LESS				**119.14**

16.34 2.5 cm premix carpet surfacing with 3 cum of stone chippings 10 mm nominal size per 100 sqm and bitumen emulsion (medium setting min. 65% bitumen contents) complying with IS : 8887, using 96 kg per cum of chippings of road surface, including consolidation with road roller etc complete .

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm. MATERIAL Bitumen emulsion M.S. @ 96kg per cum. of aggregate 96x3 = 288 kg = 0.288 t				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
7742	Bitumen emulsion medium setting				
	(M.S.) confirming to IS : 8887-1995	tonne	0.288	27100.00	7804.80
2211	Carriage of Tar bitumen	tonne	0.288	163.93	47.21
2911	Stone chippings/ screenings				
	10/ 11.2 mm nominal size	cum	3.00	1200.00	3600.00
	@ 3.00 cum. per 100 sqm				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	3.00	163.93	491.79
	LABOUR				
	(a) For mixing and spreading premix				
	aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	4.10	645.00	2644.50
	(b) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.11	3000.00	330.00
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				15340.07 W
	Add 1 % Water charges on "W"				153.40
	TOTAL				15493.47 X
	Add GST on "X" (multiplying				
	factor 0.1405)				2176.83
	TOTAL				17670.30 Y
	Add 15% CPOH on "Y"				2650.55
	TOTAL				20320.85 Z
	Add Cess @ 1% on "Z"				203.21
	Cost for 100 sqm.				20524.06
	Cost per Sqm.				205.24
	Say				205.25
	FOR DPA 30% LESS				**143.675**

16.35 Providing and laying Bitumen Penetration Macadam with hard stone aggregate of quality, size and grading as specified, with bitumen of suitable penetration grade, including required key aggregate as specified, spreading coarse aggregate with the help of self propelled/ tipper tail mounted aggregate spreader and applying bitumen by a pressure distributor and then spreading key aggregate with the help of aggregate spreader complete, including consolidation with road roller of minimum 8 to 10 tonne capacity to achieve specified values of compaction and surface accuracy :

16.35.1 For 50mm compacted thickness using coarse aggregate of size 50-20 mm graded @ 0.60 cum per 10 sqm key aggregate of size 12.5 mm graded @ 0.15 cum per 10 sqm. With paving asphalt grade VG - 10 @ 50 kg/ 10 sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 370 sqm. MATERIAL Taking stone aggregate 40mm = 45% 20mm = 44% 11.2mm = 8% Stone dust = 3%				
0293	Stone Aggregate (Single size) : 40 mm				
	nominal size	cum	9.99	1300.00	12987.00
0295	Stone Aggregate (Single size) : 20 mm				
	nominal size	cum	9.77	1400.00	13678.00
0297	Stone Aggregate (Single size) : 10 mm				
	nominal size	cum	1.78	1350.00	2403.00
1159	Stone dust	cum	0.6	1100.00	660.00
0295	Stone Aggregate (Single size) : 20 mm				
	nominal size	cum	2.33	1400.00	3262.00
0296	Stone Aggregate (Single size) :				
	12.5 mm nominal size	cum	2.66	1350.00	3591.00
1159	Stone dust	cum	0.56	1100.00	616.00
2206	Carriage of Stone aggregate 40 mm				
	nominal size and above	cum	9.99	178.19	1780.12
2202	Carriage of Stone aggregate below				
	40 mm nominal size i.e. 20 mm	cum	12.1	163.93	1983.55
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	4.44	163.93	727.85
2267	Carriage of Stone dust	cum	1.16	163.93	190.16
2916	Paving Asphalt VG -10 of approved				
	quality	tonne	1.85	24500.00	45325.00
	@ 50kg/10 sqm.				
2211	Carriage of Tar bitumen	tonne	1.85	163.93	303.27
	(B) Labour:				
0114	Beldar	day	16.67	645.00	10752.15
	for spreading stone metal				
0114	Beldar	day	5.33	645.00	3437.85
	for hand packing				
0114	Beldar	day	2.67	645.00	1722.15
	dry rolling				
0114	Beldar	day	1.33	645.00	857.85
	Bajri spreader				
0138	Sprayer (for bitumen, tar etc.)	day	0.67	714.00	478.38
0114	Beldar	day	1.33	645.00	857.85
	for spreading key aggregate				
0114	Beldar	day	6.67	645.00	4302.15
	for spraying bitumen				
0114	Beldar	day	0.67	645.00	432.15
	of power roller				
0128	Mate	day	1.77	714.00	1263.78
	(C) Machinery :				
0001	Hire charges of Coaltar Boiler 900 to				
	1400 litres	day	0.45	800.00	360.00
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.61	3000.00	1830.00
9999	Misc. items as spray nozzle, joint				
	paper, coconut oil, country soap etc.	L.S.	351	2.12	744.12
	TOTAL				114545.38 W
	Add 1 % Water charges on "W"				1145.45
	TOTAL				115690.83 X

	Add GST on "X" (multiplying factor 0.1405)				16254.56
	TOTAL				131945.40 Y
	Add 15% CPOH on "Y"				19791.81
	TOTAL				151737.20 Z
	Add Cess @ 1% on "Z"				1517.37
	Cost for 370 Sqm.				153254.58
	Cost per sqm.				414.20
	Say				414.20
	FOR DPA 30% LESS				**289.94**

16.35.2 For 75 mm compacted thickness in two layers using stone aggregate of size 63-41 mm graded @ 0.90 cum per 10 sqm key aggregate of size 20.0 mm graded @ 0.18 cum per 10 sqm. With paving asphalt grade VG - 10 @ 68 kg/10 sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 300 sqm.				
	MATERIAL				
	Taking output as 300 sqm. for single layer.				
	Coarse agg. = 300/10x0.90 = 27 cum.				
	Key agg = 300/10x0.18 = 5.4 cum.				
	Bitumen = 300/10x68 = 2.04 t.				
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	8.10	178.19	1443.34
0292	Stone Aggregate (Single size) : 50 mm nominal size	cum	8.10	1000.00	8100.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	14.58	1400.00	20412.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	4.32	1350.00	5832.00
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	2.05	1350.00	2767.50
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	2.57	1350.00	3469.50
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.81	1350.00	1093.50
2916	Paving Asphalt VG -10 of approved quality	tonne	2.04	24500.00	49980.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	24.33	163.93	3988.42
2211	Carriage of Tar bitumen	tonne	2.04	163.93	334.42
	LABOUR				
0114	Beldar	day	25.00	645.00	16125.00
	for spreading stone metal				
0114	Beldar	day	8.00	645.00	5160.00
	for hand packing				
0114	Beldar	day	4.00	645.00	2580.00
	dry rolling				
0114	Beldar	day	2.00	645.00	1290.00
	/Bajri spreader				
0138	Sprayer (for bitumen, tar etc.)	day	1.00	714.00	714.00
0114	Beldar	day	2.00	645.00	1290.00
	for spreading key aggregate				
0114	Beldar	day	10.00	645.00	6450.00
	for spraying bitumen				
0114	Beldar	day	1.00	645.00	645.00
	road roller				
0128	Mate	day	2.65	714.00	1892.10
	MACHINERY				
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.50	800.00	400.00
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.75	3000.00	2250.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Misc. items as spray nozzle, joint				

	paper, coconut oil, country soap etc.	L.S.	429	2.12	909.48
	TOTAL				137126.25 W
	Add 1 % Water charges on "W"				1371.26
	TOTAL				138497.52 X
	Add GST on "X" (multiplying factor 0.1405)				19458.90
	TOTAL				157956.42 Y
	Add 15% CPOH on "Y"				23693.46
	TOTAL				181649.88 Z
	Add Cess @ 1% on "Z"				1816.50
	Cost for 300 Sqm.				183466.38
	Cost per sqm.				611.55
	Say				611.55
	FOR DPA 30% LESS				**428.085**

16.36 Providing and laying bitumen mastic wearing course (as per specifications) with industrial bitumen of grade 85/25 conforming to IS : 702, prepared by using mastic cooker and laid to required level and slope, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of approved size at the rate of 0.005 cum per 10 sqm and at approximate spacing of 10 cm centre to centre in both directions, pressed into surface protruding 1 mm to 4 mm over mastic surface, including cleaning the surface, removal of debris etc. all complete. (Considering bitumen using 10.2% as per MORTH specification).

16.36.1 25 mm thick

Code	Description	Unit	Quantity	Rate	Amount
0313 2211 0295 0296	Details of cost for surface area of 17.40 sqm for single layer of 25 mm finished thickness. MATERIAL Taking wearing coat as 1 tonne and density as 2.3 gm/c.c Volume of bitumen mastic = 1000/2300= 0.435 cum surface area = 0.435/0.025 = 17.4 sqm. (i) Bitumen of penetration 85/25 @ 10.2% by weight of mix Blown type petroleum bitumen of penetration 85/25 of approved quality Carriage of Tar bitumen (ii) Weight of coarse aggregate @ 40% (1000 - 150) x 40/100 = 340 kg. Stone aggregate : 340/43.38x0.0283 = 0.222 cum. Stone Aggregate (Single size) : 20 mm nominal size Stone Aggregate (Single size) : 12.5 mm nominal size (iii) Weight of fine aggregate @ 15% 850 x15/100 = 127.5 kg., volume of fine aggregate: 127.5/43.103x0.0283 =0.083 cum	tonne tonne cum cum	0.102 0.102 0.02 0.202	34790.00 163.93 1400.00 1350.00	3548.58 16.72 28.00 272.70

Code	Description	Unit	Quantity	Rate	Amount
1159	Stone dust	cum	0.083	1100.00	91.30
	(iv) Weight of lime stone dust @ 45% (850- 340-127.5) = 382.50 kg., Volume of lime stone dust 382.50/2200 =0.174 cum.				
0784	Marble dust/ powder	cum	0.174	1130.00	196.62
	(v) Precoated stone chipping for surface finish: Volume of chips @ 0.005 cum/10 sqm=17.4x0.005/10 = 0.0087 cum say 0.009 cum				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.009	1350.00	12.15
	Bitumen for precoated stone chipping @ 2% =0.009x1600x2/100= 0.288 say 0.30 kg.				
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.0003	34790.00	10.44
2211	Carriage of Tar bitumen	tonne	0.0003	163.93	0.05
2202	Carriage of Stone aggregate below				

	40 mm nominal size	cum	0.231	163.93	37.87
	(0.222 + 0.009) =0.231 cum.				
2267	Carriage of Stone dust	cum	0.083	163.93	13.61
2208	Carriage of Lime	cum	0.174	163.93	28.52
	LABOUR				
0139	Skilled Beldar (for floor rubbing etc.)	day	1.50	714.00	1071.00
0130	Mistry	day	0.50	784.00	392.00
0138	Sprayer (for bitumen, tar etc.)	day	3.50	714.00	2499.00
0139	Skilled Beldar (for floor rubbing etc.)	day	0.25	714.00	178.50
0128	Mate	day	0.50	714.00	357.00
0016	Mastic Cooker	day	0.50	750.00	375.00
9999	sundries (Sealing of joints, placing angles, wastage materials)	L.S.	153.27	2.12	324.93
	TOTAL				9453.99 W
	Add 1 % Water charges on "W"				94.54
	TOTAL				9548.53 X
	Add GST on "X" (multiplying factor 0.1405)				1341.57
	TOTAL				10890.10 Y
	Add 15% CPOH on "Y"				1633.51
	TOTAL				12523.61 Z
	Add Cess @ 1% on "Z"				125.24
	Cost for 17.40 sqm				12648.85
	Cost per sqm				726.95
	Say				726.95
	FOR DPA 30% LESS				**508.865**

16.36.2 40 mm thick

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for surface area of 10.875sqm for single layer of 40 mm finished thickness.				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	MATERIAL				
	Taking wearing coat as 1 tonne and density as 2.3 gm/c.c Volume of bitumen mastic = 1000/2300= 0.435 cum surface area = 0.435/0.040 = 10.875 sqm.				
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.102	34790.00	3548.58
2211	Carriage of Tar bitumen	tonne	0.102	163.93	16.72
	(ii) Weight of coarse aggregate @ 40% (1000 - 150) x 40/100 = 340 kg. Stone aggregate : 340/43.38x0.0283 = 0.222 cum.				
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.02	1400.00	28.00
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	0.202	1350.00	272.70
	(iii) Weight of fine aggregate @ 15% 850 x15/100 = 127.5 kg., volume of fine aggregate: 127.5/43.103x0.0283 =0.083 cum				
1159	Stone dust	cum	0.083	1100.00	91.30
	(iv) Weight of lime stone dust @ 45% (850-340-127.5) = 382.50 kg., Volume of lime stone dust 382.50/2200 =0.174 cum.				
0784	Marble dust/ powder	cum	0.174	1130.00	196.62
	(v) Precoated stone chipping for surface finish: Volume of chips @ 0.005 cum/10 sqm=17.4x0.005/ 10 = 0.0087 cum say 0.009 cum				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.009	1350.00	12.15
	Bitumen for precoated stone chipping				

Code	Description	Unit	Quantity	Rate	Amount
	@ 2%=0.009x1600x2/100= 0.288				
	say 0.30 kg.				
0313	Blown type petroleum bitumen of				
	penetration 85/25 of approved quality	tonne	0.0003	34790.00	10.44
2211	Carriage of Tar bitumen	tonne	0.0003	163.93	0.05
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	0.231	163.93	37.87
	(0.222 + 0.009) =0.231 cum				
2267	Carriage of Stone dust	cum	0.083	163.93	13.61
2208	Carriage of Lime	cum	0.174	163.93	28.52
	for mastic cooker (Taking capacity of				
	cooker as one tonne)				
	LABOUR				
0139	Skilled Beldar (for floor rubbing etc.)	day	1.50	714.00	1071.00
0130	Mistry	day	0.50	784.00	392.00
0138	Sprayer (for bitumen, tar etc.)	day	3.50	714.00	2499.00
0139	Skilled Beldar (for floor rubbing etc.)	day	0.25	714.00	178.50
0128	Mate	day	0.50	714.00	357.00
0016	Mastic Cooker	day	0.50	750.00	375.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	sundries (Sealing of joints, placing				
	angles, wastage materials)	L.S.	153.27	2.12	324.93
	TOTAL				9453.99 W
	Add 1 % Water charges on "W"				94.54
	TOTAL				9548.53 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1341.57
	TOTAL				10890.10 Y
	Add 15% CPOH on "Y"				1633.51
	TOTAL				12523.61 Z
	Add Cess @ 1% on "Z"				125.24
	Cost for 10.875 sqm				12648.85
	Cost per sqm				1163.11
	Say				1163.10
	FOR DPA 30% LESS				**814.17**

16.37 2.5 cm thick bitumastic sheet with hot bitumen of approved quality, using stone chippings (60% with 12.5 mm nominal size and 40% with 10 mm nominal size) @ 1.65 cum per 100 sqm and coarse sand @ 1.65 cum per 100 sqm of road surface and with bitumen @ 56 kg/cum of stone chippings and @ 128 kg/cum of sand over a tack coat with hot straight run bitumen, including consolidation with road roller of 8 to 10 tonne etc. complete. (tack coat to be paid separately) :

16.37.1 With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100sqm.				
	80/100 bitumen @56kg. per cum. of				
	aggregate and 128kg. per cum. of sand:				
	56x1.65=92.4kg. = 0.092t +				
	128x1.65 = 211.2kg = 0.211t				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved				
	quality	tonne	0.303	24500.00	7423.50
	Solvent 0.070 kg. x 303 kg. = 21.21kg				
2914	Solvent	kilogram	21.21	30.00	636.30
2211	Carriage of Tar bitumen	tonne	0.303	163.93	49.67
2342	Carriage of solvent/ Diesel.	quintal	0.212	16.39	3.47
2910	Stone chippings/ screenings				
	12.5/ 13.2 mm nominal size	cum	0.99	1200.00	1188.00
2911	Stone chippings/ screenings				
	10/ 11.2 mm nominal size	cum	0.66	1200.00	792.00
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	1.65	163.93	270.48
0370	Coal (steam)	quintal	0.606	440.00	266.64
2200	Carriage of steam coal	tonne	0.0606	187.35	11.35
0982	Coarse sand (zone III)	cum	1.65	1500.00	2475.00

2203	Carriage of Coarse sand	cum	1.65	163.93	270.48
	Labour for cleaning road surface,				
	heating bitumen mixing and spreading				
	aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.16	714.00	114.24
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen :				
0114	Beldar	day	1.19	645.00	767.55
	(c) For cleaning, mixing and spreading				
	pre-mix aggregate :				
0130	Mistry	day	0.24	784.00	188.16
0114	Beldar	day	6.12	645.00	3947.40
	(d) Consolidation charges :				
0113	Chowkidar	day	0.34	645.00	219.30
	(at barriers for night watch and for				
	road roller)				
0101	Bhisti	day	0.13	714.00	92.82
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.13	3000.00	390.00
0001	Hire charges of Coaltar Boiler				
	900 to 1400 litres	day	0.21	800.00	168.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.05	3500.00	175.00
	(e) Misc :				
	Wire brush (with thick wire)				
0364	Wire brush	each	0.13	20.00	2.60
0365	Soft brush	each	0.40	20.00	8.00
9999	Brooms and gunny bags	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.97	2.12	19.02
	TOTAL				21300.15 W
	Add 1 % Water charges on "W"				213.00
	TOTAL				21513.15 X
	Add GST on "X" (multiplying				
	factor 0.1405)				3022.60
	TOTAL				24535.75 Y
	Add 15% CPOH on "Y"				3680.36
	TOTAL				28216.11 Z
	Add Cess @ 1% on "Z"				282.16
	Cost for 100 sqm.				28498.28
	Cost per sqm.				284.98
	Say				285.00
	FOR DPA 30% LESS				**199.5**

16.37.2 With paving Asphalt grade VG - 30

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100sqm.				
	60/70 bitumen @56kg. per cum. of aggregate and 128kg. per cum. of sand: 56x1.65=92.4kg. = 0.092t +				
	128x1.65 = 211.2kg = 0.211t				
	Total= 0.303t MATERIAL				
7309	Paving Asphalt VG-30 of approved quality	tonne	0.303	38150.00	11559.45
2211	Carriage of Tar bitumen	tonne	0.303	163.93	49.67
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	0.99	1200.00	1188.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.66	1200.00	792.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	1.65	163.93	270.48
	Steam coal for heating bitumen @				
	2 quintals per tonne of bitumen				
	= 2x0.303=0.606q				
0370	Coal (steam)	quintal	0.606	440.00	266.64
2200	Carriage of steam coal	tonne	0.0606	187.35	11.35
0982	Coarse sand (zone III)	cum	1.65	1500.00	2475.00
2203	Carriage of Coarse sand	cum	1.65	163.93	270.48

	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.16	714.00	114.24
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen :				
0114	Beldar	day	1.19	645.00	767.55
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.24	784.00	188.16
0114	Beldar	day	6.12	645.00	3947.40
	(d) Consolidation charges :				
0113	Chowkidar	day	0.34	645.00	219.30
	(at barriers for night watch and for road roller)				
0101	Bhisti	day	0.13	714.00	92.82
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.13	3000.00	390.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.21	800.00	168.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.05	3500.00	175.00
	(e) Misc :				
0364	Wire brush (with thick wire)	each	0.13	20.00	2.60
0365	Soft brush	each	0.40	20.00	8.00
9999	Brooms and gunny bags	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.97	2.12	19.02
	TOTAL				24796.33 W
	Add 1 % Water charges on "W"				247.96
	TOTAL				25044.29 X
	Add GST on "X" (multiplying factor 0.1405)				3518.72
	TOTAL				28563.01 Y
	Add 15% CPOH on "Y"				4284.45
	TOTAL				32847.47 Z
	Add Cess @ 1% on "Z"				328.47
	Cost for 100 sqm.				33175.94
	Cost per sqm.				331.76
	Say				331.75
	FOR DPA 30% LESS				**232.225**
16.37.3	**With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
7739	Details of cost for 100sqm. MATERIAL Modified Bitumen Refinary produced CRMB - 55	tonne	0.303	28000.00	8484.00
2914	@56kg. per cum. of aggregate and 128kg. per cum. of sand: 56x1.65=92.4kg. = 0.092t +	kilogram	21.21	30.00	636.30
2211	128x1.65 = 211.2kg = 0.211t	tonne	0.303	163.93	49.67
2342	Total = 0.303 t Solvent	quintal	0.212	16.39	3.47
2910	0.070 kg. x 303 kg. = 21.21kg Carriage of Tar bitumen Carriage of solvent/ Diesel.	cum	0.99	1200.00	1188.00
2911	Stone chippings/ screenings 12.5/ 13.2 mm nominal size Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.66	1200.00	792.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.65	163.93	270.48
0370	Coal (steam)	quintal	0.606	440.00	266.64
2200	Carriage of steam coal Coarse sand (zone III)	tonne	0.0606	187.35	11.35
0982	Carriage of Coarse sand Labour for cleaning road surface, heating bitumen	cum	1.65	1500.00	2475.00
2203	mixing and spreading aggregate :	cum	1.65	163.93	270.48
0128	(a) For cleaning :	day	0.16	714.00	114.24
0114	Mate Beldar Coolie	day	1.40	645.00	903.00
0115	(b) For heating bitumen : Beldar	day	1.40	645.00	903.00
0114	(c) For cleaning, mixing and spreading pre-mix	day	1.19	645.00	767.55
0130	aggregate : Mistry Beldar	day	0.24	784.00	188.16
0114	(d) Consolidation charges : Chowkidar	day	6.12	645.00	3947.40

0113	(d) Consolidation charges : Chowkidar Bhisti	day	0.34	645.00	219.30
0101	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.13	714.00	92.82
0003	Hire charges of Coaltar Boiler 900 to 1400 litres Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.13	3000.00	390.00
0001	(e) Misc : Wire brush (with thick wire) Soft brush Brooms and gunny bags	day	0.21	800.00	168.00
0023		day	0.05	3500.00	175.00
0364		each	0.13	20.00	2.60
0365		each	0.40	20.00	8.00
9999		L.S.	7.15	2.12	15.16

Code	Description	Unit	Quantity	Rate	Amount
9999	Sundries	L.S.	8.97	2.12	19.02
	TOTAL				22360.65 W
	Add 1 % Water charges on "W"				223.61
	TOTAL				22584.26 X
	Add GST on "X" (multiplying factor 0.1405)				3173.09
	TOTAL				25757.35 Y
	Add 15% CPOH on "Y"				3863.60
	TOTAL				29620.95 Z
	Add Cess @ 1% on "Z"				296.21
	Cost for 100 sqm.				29917.16
	Cost per sqm.				299.17
	Say				299.15
	FOR DPA 30% LESS				**209.405**

16.38 4 cm thick bitumastic sheet with hot bitumen of approved quality, using stone chippings (60% with 12.5 mm nominal size and 40% with 10 mm nominal size) @ 2.60 cum per 100 sqm and coarse sand @ 2.60 cum per 100 sqm of road surface and with bitumen @ 56 kg/cum of stone chippings and @ 128 kg/cum of sand over a tack coat with hot straight run bitumen, including consolidation with road roller of 8 to 10 tonne etc. complete. (tack coat to be paid separately) :

16.38.1 With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100sqm.				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved quality	tonne	0.479	24500.00	11735.50
	@56kg. per cum. of aggregate and 128kg. per cum. of sand: 56x2.60=145.6kg. = 0.146t + 128x2.60 = 332.8kg = 0.333t Total = 0.479 t				
2914	Solvent	kilogram	33.53	30.00	1005.90
	0.70kg.x479=33.53kg				
2342	Carriage of solvent/ Diesel.	quintal	0.335	16.39	5.49
2211	Carriage of Tar bitumen	tonne	0.479	163.93	78.52
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.56	1200.00	1872.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.04	1200.00	1248.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.60	163.93	426.22
0982	Coarse sand (zone III)	cum	2.60	1500.00	3900.00
2203	Carriage of Coarse sand	cum	2.60	163.93	426.22
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen = 2x0.479=0.958q				
0370	Coal (steam)	quintal	0.958	440.00	421.52
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
2200	Carriage of steam coal	tonne	0.0958	187.35	17.95
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				

	(a) For cleaning :				
0128	Mate	day	0.16	714.00	114.24
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen :				
0114	Beldar	day	1.88	645.00	1212.60
	(c) For cleaning, mixing and spreading				
	pre-mix aggregate :				
0130	Mistry	day	0.31	784.00	243.04
0114	Beldar	day	9.46	645.00	6101.70
	(d) Consolidation charges :				
0113	Chowkidar	day	0.45	645.00	290.25
0101	Bhisti	day	0.18	714.00	128.52
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.18	3000.00	540.00
0001	Hire charges of Coaltar Boiler				
	900 to 1400 litres	day	0.30	800.00	240.00
0023	Hot Bitumen mixer 0.5 cum i/c				
	hand cart	day	0.03	3500.00	105.00
	(e) Misc :				
0364	Wire brush	each	0.09	20.00	1.80
	(with thick wire)				
0365	Soft brush	each	0.27	20.00	5.40
9999	Brooms and gunny bags	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	16.12	2.12	34.17
	TOTAL				31971.34 W
	Add 1 % Water charges on "W"				319.71
	TOTAL				32291.05 X
	Add GST on "X" (multiplying				
	factor 0.1405)				4536.89
	TOTAL				36827.95 Y
	Add 15% CPOH on "Y"				5524.19
	TOTAL				42352.14 Z
	Add Cess @ 1% on "Z"				423.52
	Cost for 100 sqm.				42775.66
	Cost per sqm.				427.76
	Say				427.75
	FOR DPA 30% LESS				**299.425**

16.38.2 With paving asphalt grade VG - 30 with no solvent

Code	Description	Unit	Quantity	Rate	Amount
7309	Details of cost for 100sqm. MATERIAL Paving Asphalt VG-30 of approved quality @56kg. per cum. of aggregate and 128kg. per cum. of sand: 56x2.60=145.6kg. = 0.146t + 128x2.60 = 332.8kg = 0.333t Total = 0.479 t	tonne	0.479	38150.00	18273.85
2211	Carriage of Tar bitumen	tonne	0.479	163.93	78.52
2910	Stone chippings/ screenings				
	12.5/ 13.2 mm nominal size	cum	1.56	1200.00	1872.00
2911	Stone chippings/ screenings				
	10/ 11.2 mm nominal size	cum	1.04	1200.00	1248.00
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	2.60	163.93	426.22
0982	Coarse sand (zone III)	cum	2.60	1500.00	3900.00
2203	Carriage of Coarse sand	cum	2.60	163.93	426.22
	Steam coal for heating bitumen @				
	2 qunitals per tonne of bitumen				
	=2x0.479=0.958 qtl				
0370	Coal (steam)	quintal	0.958	440.00	421.52
2200	Carriage of steam coal	tonne	0.0958	187.35	17.95
	Labour for cleaning road surface,				
	heating bitumen mixing and spreading				
	aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.16	714.00	114.24

0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen :				
0114	Beldar	day	1.88	645.00	1212.60
	(c) For cleaning, mixing and spreading				
	pre-mix aggregate :				
0130	Mistry	day	0.31	784.00	243.04
0114	Beldar	day	9.46	645.00	6101.70
	(d) Consolidation charges :				
0113	Chowkidar	day	0.45	645.00	290.25
0101	Bhisti	day	0.18	714.00	128.52
0003	Hire charges of Diesel Road Roller -				
	8 to 10 tonne	day	0.18	3000.00	540.00
0001	Hire charges of Coaltar Boiler				
	900 to 1400 litres	day	0.30	800.00	240.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.03	3500.00	105.00
	(e) Brushes etc. for cleaning :-				
0364	Wire brush	each	0.09	20.00	1.80
	(with thick wire)				
0365	Soft brush	each	0.27	20.00	5.40
9999	Brooms and gunny bags	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	16.12	2.12	34.17
	TOTAL				37498.30 W
	Add 1 % Water charges on "W"				374.98
	TOTAL				37873.28 X
	Add GST on "X" (multiplying				
	factor 0.1405)				5321.20
	TOTAL				43194.48 Y
	Add 15% CPOH on "Y"				6479.17
	TOTAL				49673.65 Z
	Add Cess @ 1% on "Z"				496.74
	Cost for 100 sqm.				50170.39
	Cost per sqm.				501.70
	Say				501.70
	FOR DPA 30% LESS				**351.19**

16.38.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53

Code	Description	Unit	Quantity	Rate	Amount
7739	Details of cost for 100sqm. MATERIAL				
	Modified Bitumen Refinary produced CRMB - 55	tonne	0.479	28000.00	13412.00
	@56kg. per cum. of aggregate and 128kg. per				
2914	cum. of sand: 56x2.60=145.6kg. = 0.146t +	kilogram	33.53	30.00	1005.90
2342	128x2.60 = 332.8kg = 0.333t	quintal	0.335	16.39	5.49
2211	Total = 0.479 tonne Solvent 0.70kg.x479=33.53kg.	tonne	0.479	163.93	78.52
2910	Carriage of solvent/ Diesel. Carriage of Tar				
	bitumen Stone chippings/ screenings 12.5/ 13.2	cum	1.56	1200.00	1872.00
2911	mm nominal size Stone chippings/ screenings 10/				
	11.2 mm nominal size				
	Carriage of Stone aggregate below 40 mm nominal	cum	1.04	1200.00	1248.00
2202	size				
	Coarse sand (zone III) Carriage of Coarse sand	cum	2.60	163.93	426.22
0982	Steam coal for heating bitumen @ 2 qunitals per	cum	2.60	1500.00	3900.00
2203	tonne of bitumen = 2x0.479=0.958q	cum	2.60	163.93	426.22
	Coal (steam)				
0370	Carriage of steam coal	quintal	0.958	440.00	421.52
2200	Labour for cleaning road surface, heating bitumen	tonne	0.0958	187.35	17.95
	mixing and spreading aggregate :				
0128	(a) For cleaning :	day	0.16	714.00	114.24
0114	Mate Beldar Coolie	day	1.40	645.00	903.00
0115	(b) For heating bitumen :	day	1.40	645.00	903.00
0114	Beldar	day	1.88	645.00	1212.60
0130	(c) For cleaning, mixing and spreading pre-mix	day	0.31	784.00	243.04
0114	aggregate :	day	9.46	645.00	6101.70
0113	Mistry Beldar	day	0.45	645.00	290.25
	(d) Consolidation charges : Chowkidar				
0101	Bhisti	day	0.18	714.00	128.52
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne				
	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.18	3000.00	540.00
0001	Hot Bitumen mixer 0.5 cum i/c hand cart				
	(e) Misc :				
	Wire brush (with thick wire) Soft brush	day	0.30	800.00	240.00
0023	Brooms and gunny bags				

Code	Description	Unit	Quantity	Rate	Amount
		day	0.03	3500.00	105.00
0364		each	0.09	20.00	1.80
0365		each	0.27	20.00	5.40
9999		L.S.	5.33	2.12	11.30
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Sundries	L.S.	16.12	2.12	34.17
	TOTAL				33647.84 W
	Add 1 % Water charges on "W"				336.48
	TOTAL				33984.32 X
	Add GST on "X" (multiplying factor 0.1405)				4774.80
	TOTAL				38759.12 Y
	Add 15% CPOH on "Y"				5813.87
	TOTAL				44572.98 Z
	Add Cess @ 1% on "Z"				445.73
	Cost for 100 sqm.				45018.71
	Cost per sqm.				450.19
	Say				450.20
	FOR DPA 30% LESS				**315.14**

16.39 Providing and laying seal coat of premixed fine aggregate (passing 2.36 mm and retained on 180 micron sieve) with bitumen using 128 kg of bitumen of grade VG - 10 bitumen per cum of fine aggregate and 0.60 cum of fine aggregate per 100 sqm of road surface, including rolling and finishing with road roller all complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100sqm.				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved quality	tonne	0.0768	24500.00	1881.60
	@ 128kg/cum. of sand 128x0.60 = 76.80kg. = 0.0768 m.t				
2211	Carriage of Tar bitumen	tonne	0.0768	163.93	12.59
0982	Coarse sand (zone III)	cum	0.60	1500.00	900.00
2203	Carriage of Coarse sand	cum	0.60	163.93	98.36
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen =2x0.768=0.1536 qtl				
0370	Coal (steam)	quintal	1.536	440.00	675.84
2200	Carriage of steam coal	tonne	0.1536	187.35	28.78
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.06	714.00	42.84
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.97	645.00	625.65
	(b) For heating bitumen :				
0114	Beldar	day	0.30	645.00	193.50
	0.38/96x76.8				
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0114	Beldar	day	1.11	645.00	715.95
	11.39/0.75x0.60				
0130	Mistry	day	0.05	784.00	39.20
	0.06/0.75x0.60				
	(d) Miscellaneous :				
0113	Chowkidar	day	0.15	645.00	96.75
0101	Bhisti	day	0.06	714.00	42.84
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.06	3000.00	180.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.05	800.00	40.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.01	3500.00	35.00
	(e) Misc :				
0364	Wire brush	each	0.05	20.00	1.00

	(with thick wire)				
0365	Soft brush	each	0.12	20.00	2.40
9999	Sundries	L.S.	18.20	2.12	38.58
	TOTAL				5966.93 W
	Add 1 % Water charges on "W"				59.67
	TOTAL				6026.60 X
	Add GST on "X" (multiplying factor 0.1405)				846.74
	TOTAL				6873.34 Y
	Add 15% CPOH on "Y"				1031.00
	TOTAL				7904.34 Z
	Add Cess @ 1% on "Z"				79.04
	Cost for 100 sqm.				7983.38
	Cost per sqm.				79.83
	Say				79.85
	FOR DPA 30% LESS				**55.895**

16.40 Providing and laying seal coat over prepared surface of road with bitumen heated in bitumen boiler fitted with the spray set spraying using 98 kg of bitumen of grade VG - 10 and blinding surface with 0.90 cum of stone aggregate of 6.7 mm size (Passing 11.2 mm sieve and retained on 2.36 mm sieve) per 100 sqm of road surface, including rolling and finishing with power road roller all complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100sqm.				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved quality	tonne	0.098	24500.00	2401.00
2211	Carriage of Tar bitumen	tonne	0.098	163.93	16.07
0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	0.90	1400.00	1260.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.90	163.93	147.54
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen =2x0.098=1.96 qtl				
0370	Coal (steam)	quintal	1.96	440.00	862.40
2200	Carriage of steam coal	tonne	0.196	187.35	36.72
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For heating and spraying bitumen :				
0130	Mistry	day	0.04	784.00	31.36
0138	Sprayer (for bitumen, tar etc.)	day	0.06	714.00	42.84
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0114	Beldar	day	0.69	645.00	445.05
	(b) For cleaning :				
0128	Mate	day	0.11	714.00	78.54
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(c) For screening and spraying aggregate :				
0128	Mate	day	0.05	714.00	35.70
0114	Beldar	day	0.51	645.00	328.95
	(d) Misc :				
0113	Chowkidar	day	0.15	645.00	96.75
0101	Bhisti	day	0.06	714.00	42.84
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.06	3000.00	180.00
0007	Hire charges of Coaltar Sprayer	day	0.06	350.00	21.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.06	800.00	48.00
	(e) Misc :				
0364	Wire brush (with thick wire)	each	0.05	20.00	1.00
0365	Soft brush	each	0.12	20.00	2.40
9999	Sundries	L.S.	18.20	2.12	38.58

9999	Brooms and gunny bags	L.S.	2.73	2.12	5.79
	TOTAL				7928.52 W
	Add 1 % Water charges on "W"				79.29
	TOTAL				8007.81 X
	Add GST on "X" (multiplying factor 0.1405)				1125.10
	TOTAL				9132.91 Y
	Add 15% CPOH on "Y"				1369.94
	TOTAL				10502.84 Z
	Add Cess @ 1% on "Z"				105.03
	Cost for 100 sqm.				10607.87
	Cost per sqm.				106.08
	Say				106.10
	FOR DPA 30% LESS				**74.27**

16.41 Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum. MATERIAL				
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	0.52	1300.00	676.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.22	1400.00	308.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.11	1350.00	148.50
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.52	178.19	92.66
2202	Carriage of Stone aggregate below 40 mm nominal size				
0982	Coarse sand (zone III)	cum	0.33	163.93	54.10
		cum	0.445	1500.00	667.50
2203	Carriage of Coarse sand	cum	0.445	163.93	72.95
0367	Portland Cement (OPC-43 grade)	tonne	0.32	5000.00	1600.00
2209	Carriage of Cement	tonne	0.32	145.72	46.63
	LABOUR				
0155	Mason (average)	day	0.10	749.00	74.90
0114	Beldar	day	1.63	645.00	1051.35
0101	Bhisti	day	0.70	714.00	499.80
	MACHINERY				
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with hooper	day	0.077	800.00	61.60
0012	Vibrator (Needle type 40 mm)	day	0.07	350.00	24.50
9999	Sundries	L.S.	26.00	2.12	55.12
	Side shuttering				
	Taking the slab to be 5cm thick and width to be 6 metre, length of road 27 metre = 9.90/24.30 = 0.407 sqm				
5.9.1	Rate as per item no 5.9.1 of SH : Reinforced cement concrete work	sqm	0.407	307.95	125.34 A
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				5561.97 W
	Add 1 % Water charges on "W-A"				54.37
	TOTAL				5616.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				771.49
	TOTAL				6387.82 Y
	Add 15% CPOH on "Y-A"				939.37
	TOTAL				7327.20 Z
	Add Cess @ 1% on "Z-A"				72.02
	Cost for 1 cum.				7399.22
	Say				7399.20
	FOR DPA 30% LESS				**5179.44**

16.42 Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/ expansion, construction & longitudinal joints (10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately).

Note:- Cement content considered in M-30 is @ 340 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately.

16.42.1 Cement concrete prepared with batch mixing machine

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum.				
	MATERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.34	5000.00	1700.00
2209	Carriage of Cement	tonne	0.34	145.72	49.54
0293	Stone Aggregate (Single size) :				
	40 mm nominal size	cum	0.52	1300.00	676.00
0295	Stone Aggregate (Single size) :				
	20 mm nominal size	cum	0.22	1350.00	297.00
0297	Stone Aggregate (Single size) :				
	10 mm nominal size	cum	0.11	1350.00	148.50
0982	Coarse sand (zone III)	cum	0.445	1500.00	667.50
2206	Carriage of Stone aggregate 40 mm				
	nominal size and above	cum	0.52	178.19	92.66
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	0.33	163.93	54.10
2203	Carriage of Coarse sand	cum	0.445	163.93	72.95
	LABOUR :- FOR MIXING AND LAYING				
0114	Beldar	day	2.00	645.00	1290.00
0101	Bhisti	day	0.27	714.00	192.78
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0128	Mate	day	0.04	714.00	28.56
	For compaction by vibrator				
0155	Mason (average)	day	0.07	749.00	52.43
0114	Beldar	day	0.07	645.00	45.15
	MACHINERY				
0004	Production cost of concrete by batch				
	mix plant.	cum	1.00	400.00	400.00
	(Assuming 25 cum. per day)				
0009	Pumping charges of concrete including				
	Hire charges of pump, piping work &				
	accessories etc.	cum	1.00	210.00	210.00
0021	Pin vibrator	day	0.025	250.00	6.25
	(SHP) with 50 cum. output per day				
0022	Surface Vibrator	day	0.05	300.00	15.00
	with 25 cum. output per day				
	Add for steel form work				
16.43B	Rate as per Item Number 16.43B of				
	SH: Road work	cum	1.00	915.85	915.85
9999	Cutting and making joints	L.S.	50.00	2.12	106.00
	TOTAL				7095.17 W
	Add 1 % Water charges on "W"				70.95
	TOTAL				7166.12 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1006.84
	TOTAL				8172.96 Y
	Add 15% CPOH on "Y"				1225.94
	TOTAL				9398.91 Z
	Add Cess @ 1% on "Z"				93.99
	Cost per cum.				9492.89

	Say				9492.90
	FOR DPA 30% LESS				**6645.03**

16.42.2 Cement concrete manufactured in automatic batching plant (RMC plant) i/c transportation to site in transit mixer

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum.				
	MATERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.34	5000.00	1700.00
2209	Carriage of Cement	tonne	0.34	145.72	49.54
0293	Stone Aggregate (Single size) :				
	40 mm nominal size	cum	0.52	1300.00	676.00
0295	Stone Aggregate (Single size) :				
	20 mm nominal size	cum	0.22	1400.00	308.00
0297	Stone Aggregate (Single size) :				
	10 mm nominal size	cum	0.11	1350.00	148.50
0982	Coarse sand (zone III)	cum	0.445	1500.00	667.50
2206	Carriage of Stone aggregate 40 mm				
	nominal size and above	cum	0.52	178.19	92.66
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	0.33	163.93	54.10
2203	Carriage of Coarse sand	cum	0.445	163.93	72.95
	LABOUR :- FOR MIXING AND LAYING				
0114	Beldar	day	2.00	645.00	1290.00
0101	Bhisti	day	0.27	714.00	192.78
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0128	Mate	day	0.04	714.00	28.56
	For compaction by vibrator				
0155	Mason (average)	day	0.07	749.00	52.43
0114	Beldar	day	0.07	645.00	45.15
	MACHINERY				
0004	Production cost of concrete by				
	batch mix plant.	cum	1.00	400.00	400.00
	(Assuming 25 cum. per day)				
0029	Carriage of concrete by transit mixer.	km/ cum	10.00	37.30	373.00
0009	Pumping charges of concrete including				
	Hire charges of pump, piping work &				
	accessories etc.	cum	1.00	210.00	210.00
0021	Pin vibrator	day	0.025	250.00	6.25
	(SHP) with 50 cum. output per day				
0022	Surface Vibrator	day	0.05	300.00	15.00
	with 25 cum. output per day				
	Add for steel form work				
16.43B	Rate as per Item Number 16.43B of				
	SH: Road work	cum	1.00	915.85	915.85
9999	Cutting and making joints	L.S.	50.00	2.12	106.00
	TOTAL				7479.17 W
	Add 1 % Water charges on "W"				74.79
	TOTAL				7553.96 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1061.33
	TOTAL				8615.29 Y
	Add 15% CPOH on "Y"				1292.29
	TOTAL				9907.59 Z
	Add Cess @ 1% on "Z"				99.08
	Cost per cum.				10006.66
	Say				10006.65
	FOR DPA 30% LESS				**7004.655**

16.42A Annexure 'A' to Item number 16.43

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 8.5 cum.				
	MATERIAL:				
	(i) Painting with primer				
	(i) Construction joint 6.15m. long				

	30cm deep				
	6.15x(0.30+0.01)= 1.91sqm.+				
	(ii) Dummy joints				
	4.61m long and 10cm deep 10mm wide				
	4.6 lx(0.10+0.10+0.01) = 0.97 sqm.				
	= 2.88 sqm.				
	2.88sqm. @0.26 lit./sqm. = 0.75 lit. +				
	Add 5% wastage = 0.03				
	Total =0.78 lit				
0316	Bitumen solution primer of approved quality	litre	0.78	47.00	36.66
9977	Carriage	L.S.	0.91	2.12	1.93
	(ii) Joint sealing compound (GradeA) for construction joint 6.15m long 10mm wide 25mm deep.				
	6.15x2x2.5cm = 3075cucm				
	For dummy joints				
	461xl.0xl0cm. = 4610cucm.				
	Total = 7685 cum				
	Add 5% wastage = 384 cucm				
	Total = 8069 cucm				
	Say 8.07 cudm. @1.2kg/cudm = 9.68 kg				
0314	Bitumen hot sealing compound : grade A	kilogram	9.68	29.00	280.72
9977	Carriage	L.S.	0.91	2.12	1.93
0370	Coal (steam)	quintal	0.015	440.00	6.60
9977	Carriage	L.S.	0.91	2.12	1.93
	LABOUR:				
	(ii) For applying primer qty. = 2.88 sqm				
0123	Mason (brick layer) 1st class	day	3.00	784.00	2352.00
0131	Painter	day	0.10	714.00	71.40
	(iii) Labour for heating and filling sealing compound.				
0124	Mason (brick layer) 2nd class	day	0.25	714.00	178.50
	(iv) Beldar for heating, carrying and pouring of bitumen				
0114	Beldar	day	0.68	645.00	438.60
	TOTAL				3370.27
	Cost for 8.5 cum				3370.27
	Cost per cum.				396.50
	Say				396.50
	FOR DPA 30% LESS				**277.55**

16.42B Annexure 'B' to Item number 16.43

Code	Description	Unit	Quantity	Rate	Amount
	ANALYSIS OF ANNEXTURE 'B' 16.43B (Required in 16.43) STEEL FORM WORK : Part-I Cost of materials :				
	Assuming that pavement 30m long 22.5m wide and 0.30m deep having panel size 6.15x4.61x0.30m or 8.50cu. laid in a day of 8 hrs. Hence form work to be provided for 2 days.				
	MATERIAL				
	22x30.75 = 676.50				
	2x46.10 = 92.20				
	Total = 768.70m.				
	768.70 @ 83.10 kg/ m = 25.44 M.T.				
	Assuming that channel will become unserviceable after use for 5000 slab (100 times) and salvage value of steel shall fetch 20% of its basic cost.				
1007	Structurals such as tees, angles channels and R.S. joists	quintal	0.041	4950.00	201.52
2205	Carriage of Steel	tonne	0.004	145.72	0.59
	Part-II Labour for assembling,				

	errection, dismeritelling and cleaning the shuttering. Assuming that 255 labour for steel shuttering shall be required as compared to timber shuttering. Contact area of 50 slabs of steel shuttering.				
	Long channel = 11x20x0.30 = 66.00				
	= 2x45.10x0.30 = 27.06				
	Total= 93.06				
	LABOUR				
0103	Blacksmith 2nd class	day	2.86	714.00	2042.04
0114	Beldar	day	2.86	645.00	1844.70
	Carriage of steel for extra lead of runway				
0114	Beldar	day	5.73	645.00	3695.85
	TOTAL				7784.70
	Cost for 50 slabs / 8.5 cum				7784.70
	Cost per cum.				915.85
	Say				915.85
	FOR DPA 30% LESS				**641.095**

16.43 Extra for providing and mixing hardening compound of approved quality as per manufacturer's specification in cement concrete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 litre				
	MATERIAL				
7254	Hardening compound (including cartage)	litre	1.00	36.00	36.00
	TOTAL				36.00 W
	Add 1 % Water charges on "W"				0.36
	TOTAL				36.36 X
	Add GST on "X" (multiplying factor 0.1405)				5.11
	TOTAL				41.47 Y
	Add 15% CPOH on "Y"				6.22
	TOTAL				47.69 Z
	Add Cess @ 1% on "Z"				0.48
	Cost per litre				48.17
	Say				48.15
	FOR DPA 30% LESS				**33.705**

16.44 Providing and fixing pre-moulded joint filler in expansion joints of RCC roads / CC pavements after making the joints dust free with high pressure air jet cleaners, all complete as per direction of the Engineer-in-Charge. (Pre-moulded joint fillers shall be made of bitumen hot sealing compound impregnated fibre board having impregnation more than 35%, conforming to IS:1838 for fibre board and IS: 1834 for hot sealing bitumen compound grade A.)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 12 mm thick 15cm deep and 300m in length				
	MATERIAL				
0317	Premoulded joint filler board 12 mm thick (Rate inclusive of carriage) = 300x0.15 = 45 sqm.	sqm	45.00	360.00	16200.00
	Labour for cutting the board in strips, making the joints clean and dust free and fixing etc. :				
0112	Carpenter 2nd class	day	1.00	714.00	714.00
0114	Beldar	day	3.00	645.00	1935.00
9999	Sundries	L.S.	26.91	2.12	57.05
	TOTAL				18906.05 W
	Add 1 % Water charges on “W”				189.06
	TOTAL				19095.11 X
	Add GST on “X” (multiplying factor 0.1405)				2682.86
	TOTAL				21777.97 Y
	Add 15% CPOH on “Y”				3266.70

	TOTAL				25044.67 Z
	Add Cess @ 1% on “Z”				250.45
	Cost for 300m length, **12mm** width and 15cm depth				25295.12
	Cost for one cm. depth one cm. width per metre length.				4.68
	Say				4.70
	FOR DPA 30% LESS				**3.29**

16.45 Providing and filling in position rubberized bitumen hot sealing compound for sealing of expansion joints in roads / pavements all complete as per direction of the Engineer-in-Charge.
16.45.1 Using grade 'A' sealing compound conforming to IS: 1834.

Code	Description	Unit	Quantity	Rate	Amount
0314 2211 0124	Details of cost for 12 mm wide 25 mm deep and 300 metres in length. Sealing compound- 300x0.012x0.025 = 0.09cum. Weight 1020 kg. per cum. = 1020x0.09 = 91.80 kg MATERIAL Bitumen hot sealing compound : grade A Carriage of Tar bitumen 91.8 kg = 0.0918 Say 0.092 tonne Labour for filling : Mason (brick layer) 2nd class	kilogram tonne day	91.80 0.092 1.00	29.00 163.93 714.00	2662.20 15.08 714.00

Code	Description	Unit	Quantity	Rate	Amount
0114	Beldar	day	2.50	645.00	1612.50
9999	Sundries	L.S.	20.67	2.12	43.82
	TOTAL				5047.60 W
	Add 1 % Water charges on "W"				50.48
	TOTAL				5098.08 X
	Add GST on "X" (multiplying factor 0.1405)				716.28
	TOTAL				5814.36 Y
	Add 15% CPOH on "Y"				872.15
	TOTAL				6686.51 Z
	Add Cess @ 1% on "Z"				66.87
	Cost for 12 mm depth, 25 mm width and 300m length				6753.38
	Cost for one cm. depth one cm. width permetre length.				7.50
	Say				7.50
	FOR DPA 30% LESS				**5.25**

16.46 Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of ail dirt, scales, oil, grease and other foreign material etc. and lining out complete.
16.46.1 New work (Two or more coats)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10sqm.				
	MATERIAL				
	1st Coat - 1.66 +				
	2nd Coat -1.13				
	Total = 2.79				
7256	Superior quality road marking paint (water based)	litre	2.79	130.00	362.70
9977	Carriage of paint	L.S.	5.07	2.12	10.75
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0114	Beldar	day	0.54	645.00	348.30
9999	Sundries	L.S.	36.40	2.12	77.17
	(including painting brush, wire brush, labour for controlling traffic and other T&P etc.)				
	TOTAL				1184.48 W
	Add 1 % Water charges on "W"				11.84
	TOTAL				1196.32 X

	Add GST on "X" (multiplying				
	factor 0.1405)				168.08
	TOTAL				1364.40 Y
	Add 15% CPOH on "Y"				204.66
	TOTAL				1569.06 Z
	Add Cess @ 1% on "Z"				15.69
	Cost for 10 sqm.				1584.76
	Cost per sqm.				158.48
	Say				158.50
	FOR DPA 30% LESS				**110.95**

16.46.2 Old work (One or more coats)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10sqm.				
	MATERIAL				
7256	Superior quality road marking paint				
	(water based)	litre	1.66	130.00	215.80
9977	Carriage of paint	L.S.	1.12	2.12	2.37
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0114	Beldar	day	0.36	645.00	232.20
9999	Sundries	L.S.	24.44	2.12	51.81
	(including painting brush, wire brush,				
	labour for controlling traffic and other				
	T&P etc.)				
	TOTAL				759.23 W
	Add 1 % Water charges on "W"				7.59
	TOTAL				766.82 X
	Add GST on "X" (multiplying				
	factor 0.1405)				107.74
	TOTAL				874.56 Y
	Add 15% CPOH on "Y"				131.18
	TOTAL				1005.74 Z
	Add Cess @ 1% on "Z"				10.06
	Cost for 10 sqm.				1015.80
	Cost per sqm.				101.58
	Say				101.60
	FOR DPA 30% LESS				**71.12**

16.47 Painting road surface marking with adequate nos of coats to give uniform finish with ready mixed road marking paint conforming to IS : 164, on bituminous surface in white/yellow shade, including cleaning the surface of all dirt, scales, oil, grease and foreign material etc. complete.

16.47.1 New work (Two or more coats)

Code	Description	Unit	Quantity	Rate	Amount
7255	Details of cost for 10sqm. MATERIAL	litre L.S.	1.48	115.00	170.20
9977	Road marking paint (spirit based) (confirming to IS	day day day	2.65	2.12	5.62
0128	164 spirit base) Carriage of paint		0.10	714.00	71.40
0131	(1.48/0.8x0.08x6.9) LABOUR		0.54	714.00	385.56
0114	Mate Painter Beldar		1.68	645.00	1083.60
	for stretching of rope & errecting of barricading				

Code	Description	Unit	Quantity	Rate	Amount
9999	Sundries	L.S.	36.40	2.12	77.17
	(including painting brush, wire brush,				
	labour for controlling traffic and other				
	T&P etc.)				
	TOTAL				1793.55 W
	Add 1 % Water charges on "W"				17.94
	TOTAL				1811.48 X
	Add GST on "X" (multiplying				
	factor 0.1405)				254.51
	TOTAL				2065.99 Y
	Add 15% CPOH on "Y"				309.90
	TOTAL				2375.89 Z
	Add Cess @ 1% on "Z"				23.76
	Cost for 10 sqm.				2399.65
	Cost per sqm.				239.97
	Say				239.95

	FOR DPA 30% LESS				**167.965**

16.47.2 Old work (One or more coats)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10sqm.				
	MATERIAL				
7255	Road marking paint (spirit based)	litre	0.89	115.00	102.35
	(confirming to IS 164 spirit base)				
9977	Carriage of paint.	L.S.	0.65	2.12	1.38
	LABOUR				
0128	Mate	day	0.06	714.00	42.84
0131	Painter	day	0.36	714.00	257.04
0114	Beldar	day	1.12	645.00	722.40
	(stretching of rope & errecting of				
	barricading etc.)				
9999	Sundries	L.S.	24.44	2.12	51.81
	(including painting brush, wire brush,				
	labour for controlling traffic and other				
	T&P etc.)				
	TOTAL				1177.82 W
	Add 1 % Water charges on “W”				11.78
	TOTAL				1189.60 X
	Add GST on “X” (multiplying				
	factor 0.1405)				167.14
	TOTAL				1356.74 Y
	Add 15% CPOH on “Y”				203.51
	TOTAL				1560.25 Z
	Add Cess @ 1% on “Z”				15.60
	Cost for 10 sqm.				1575.85
	Cost per sqm.				157.59
	Say				157.60
	FOR DPA 30% LESS				**110.32**

16.48 Making bell mouth opening/ entrance of size 100x50x50 cm for drainage pipe under footpath, including providing cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) for shape of bell mouth, including plastering providing and fixing precast R.C.C./ S.F.R.C. slab including plastering with cement mortar 1:3 (1 cement : 3 fine sand) of 6 mm thickness on exposed surface of the slab & bell mouth including centring, shuttering & neat cement punning inside the bell mouth etc. all complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 Nos.				
	(i) Earth work in excavation				
	Channel :- 10x1x1.00x0.20x0.15 = 0.30+				
	Bell mouth :-10x1x1.00x0.50x				
	(0.18+0.075)/2 = 0.64				
	Total = 0.94				
	MATERIAL				
2.8.1	(Rate as per item no. 2.8.1 of				
	SH: Earth work)	cum	0.94	286.85	269.64 A
	(ii) Cement concrete 1:4:8				
	Channel :-10x1x1.00x0.20x0.075				
	= 0.15 cum.				
4.1.8	Rate as per item no 4.1.8 of				
	SH : Concrete Work	cum	0.15	6326.05	948.91 A
	(iii) Cement concrete 1:3:6				
	Channel				
	10x1x1.00x0.20x0.75 = 0.15 +				
	Bed of bell mouth :				
	10x1x1.00x0.50x(0.18+0.075)/2 = 0.64 +				
	Haunches portion				
	10x2x(0.35+0.075)/2x0.25x0.375 = 0.40 +				
	Rect part :-				
	10x2x0.35x0.25x0.375 = 0.65 +				
	Quadrant portion :-				
	$10x1[(0.30x0.30)-3.142/4(0.30)^2]x$				
	0.30 =0.06+				
	Central middle part :-				

Code	Description	Unit	Quantity	Rate	Amount
	10x1x0.30x0.25x0.075 = 0.05				
	Total = 1.95 cum.				
4.1.5	(Rate as per item no.4.1.5				
	S.H. : Cement Concrete)	cum	1.95	6833.40	13325.13 A
	(iv) RCC in shelves				
	10x1x1.00x0.50x0.05 = 0.25cum.				
5.3	Rate as per item no. 5.3				
	SH : Reinforced cement concrete work	cum	0.25	10719.30	2679.83 A
	(v) Reinforcement for RCC @100kg/cum.				
	0.25x100=25kg.				
5.22.1	Rate as per item no. 5.22.1				
	SH : Reinforced cement concrete work	kg	25.00	88.95	2223.75 A
	(vi) Centering and shuttering				
	For shelves (sides)				
	10x2(1.00+0.50)x0.05 = 1.50+				
	Front side of bell mouth :				
	10x2(0.446)x0.375 = 3.34 +				
	Pipe portion:				
	10x[0.30x0.375-3.142/4(030)^2] = 0.04 +				
	Out side of bell mouth				
	Total= 10x(1.00 =0.50)x0.45 = 9.00+				
	Deduct pipe opening				
	Total =10x0.785x0.30x0.30 = (-)0.71				
	Total = 13.17				
5.9.1	Rate as per item No.5.9.1 of SH : RCC	sqm	13.17	307.95	4055.70 A
	(vii) cement plaster on RCC slab				
	10x1.00x0.50 = 5.00 +				
	10x2(1.00+0.50)x0.05 = 1.50+				
	Total = 6.50 sqm.				
5.23	Rate as per item no.13.16.1	sqm	6.50	253.05	1644.83 A
	(viii) Neat cement punning:				
	Qty. same as marked (x) at (9vi) =				
	Total =3.34+0.04 = 3.38 sqm.				
	Channel portion:				
	10x1x(0.85+0.30)/2x0.25 = 1.43				
	Total = 4.81				
13.18	Rate as per item no.13.18 S.H. Finishing	sqm	4.81	67.80	326.12 A
0367	Portland Cement (OPC-43 grade)	tonne	0.024	5000.00	120.00
2209	Carriage of Cement	tonne	0.024	145.72	3.50
0983	Fine sand (zone IV)	cum	0.05	900.00	45.00
2261	Carriage of Fine sand (1 part badarpur				
	sand : 2 parts jamuna sand)	cum	0.05	163.93	8.20
	LABOUR				
0114	Beldar	day	0.035	645.00	22.58
0101	Bhisti	day	0.003	714.00	2.14
9999	Hire charges of mixer	L.S.	1.27	2.12	2.69
9999	Sundries	L.S.	1.27	2.12	2.69
	Labour for plaster				
0155	Mason (average)	day	0.33	749.00	247.17
0115	Coolie	day	0.488	645.00	314.76
0101	Bhisti	day	0.60	714.00	428.40
9999	Extra for removing burr	L.S.	8.71	2.12	18.47
9999	Scaffolding	L.S.	7.62	2.12	16.15
	TOTAL				26705.64 W
	Add 1 % Water charges on "W-A"				12.32
	TOTAL				26717.96 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				174.79
	TOTAL				26892.75 Y
	Add 15% CPOH on "Y-A"				212.83
	TOTAL				27105.58 Z
	Add Cess @ 1% on "Z-A"				16.32
	Cost for 10 nos.				27121.89
	Cost for one bell mouth				2712.19

	Say				2712.20
	FOR DPA 30% LESS				**1898.54**

16.49 Providing and fixing Glow studs of size 100x20 mm made of heavy duty body shall be moulded ASA (Acrylic styrene Acryloretrite) or HIP (High impact polystyrene) or ABS having electronically welded micro- prismatic lens with abrasion resistant coating as approved by Engineer in charge. The glow stud shall support a load of 13635 kg tested in accordance with ASTM D4280. The slope of retro- reflective surface shall be 35 (+/-5) degress to base .The reflective panels on both sides with at least 12 cm of reflective area up each side. The luminance intensity should be as per the specification and shall be tested as described in ASTM I: 809 as recommended in BS: 873 part 4 : 1973. The studs shall be fixed to the Road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer complete and as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 15 Nos.				
	MATERIAL				
7426	Cat's eye	each	15.00	80.00	1200.00
9977	Carriage of cats eyes	L.S.	2.60	2.12	5.51
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	39.00	2.12	82.68
	(including material required for fixing cats eyes and providing barricading to divert traffic)				
	TOTAL				1967.69 W
	Add 1 % Water charges on "W"				19.68
	TOTAL				1987.37 X
	Add GST on "X" (multiplying factor 0.1405)				279.23
	TOTAL				2266.59 Y
	Add 15% CPOH on "Y"				339.99
	TOTAL				2606.58 Z
	Add Cess @ 1% on "Z"				26.07
	Cost for 15 Nos.				2632.65
	Cost for one cat's eye.				175.51
	Say				175.50
	FOR DPA 30% LESS				**122.85**

16.50 Preparation of sub-base road pavement with commercial dry lime (slaked), fly ash stabilised soil with a mix of 3% lime, 12% fly ash and 85% local suitable soil by weight, so as to achieve minimum field C.B.R. of 20, including mixing, rolling with road roller curing etc. all complete.

16.50.1 Minimum thickness 15 cm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 6.67 sqm. or 1 cum.				
	MATERIAL				
0777	Dry hydrated lime (factory made)	quintal	0.41	290.00	118.90
2208	Carriage of Lime	cum	0.068	163.93	11.15
1980	Flyash	cum	0.277	11.00	3.05
2267	Carriage of Stone dust	cum	0.277	163.93	45.41
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	LABOUR				
	(i)For earth work :				
0114	Beldar	day	0.116	645.00	74.82
0115	Coolie	day	0.116	645.00	74.82
0979	Royalty for good earth	cum	0.655	40.00	26.20
2241	Carriage of Good earth	cum	0.655	204.92	134.22
	(ii) For mixing :				
0114	Beldar	day	0.025	645.00	16.13
0115	Coolie	day	0.025	645.00	16.13
	(iii) For rolling layers :				
0113	Chowkidar	day	0.0008	645.00	0.52
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.0008	3000.00	2.40
9999	Sundries	L.S.	0.18	2.12	0.38
	(iv) Labour for spreading and watering :				

0114	Beldar	day	0.26	645.00	167.70
0115	Coolie	day	0.26	645.00	167.70
0101	Bhisti	day	0.18	714.00	128.52
	TOTAL				988.03 W
	Add 1 % Water charges on "W"				9.88
	TOTAL				997.91 X
	Add GST on "X" (multiplying				
	factor 0.1405)				140.21
	TOTAL				1138.12 Y
	Add 15% CPOH on "Y"				170.72
	TOTAL				1308.84 Z
	Add Cess @ 1% on "Z"				13.09
	Cost for 1 cum.				1321.93
	Say				1321.95
	FOR DPA 30% LESS				**925.365**

16.51 Providing and fixing precast lime fly ash concrete blocks 1:2:3:6 (1 lime: 2 fly ash : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), including finishing with 10mm thick cement mortar 1:3 (1 cement : 3 coarse sand) in foot paths, including preparation of sub grade with a hand rammer, laying 10 mm thick leveling course of fine sand (jamuna sand) and filling the joints with fine sand.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a path of area 10sqm/0.9cum.				
	No. of blocks required for 10sqm.				
	= 108 nos.				
16.52Y	(a) Concrete in blocks (108x0.30x0.30x0.09 =		0.875	3727.10	3261.21
0114	0.875 cum.) Rate as per sub analysis Item	cum	0.72	645.00	464.40
0115	Number 16.52Y of SH:Road Work	day day	0.60	645.00	387.00
6501	(b) Labour for surface excavation : Beldar	cum cum	0.10	1300.00	130.00
2335	Coolie		0.10	163.93	16.39
	(c) For levelling course of fine sand Sand zone V				
	(Jamuna)				
	Carriage of Jamuna sand				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	LABOUR				
0114	Beldar	day	0.0089	645.00	5.74
0115	Coolie	day	0.0107	645.00	6.90
0101	Bhisti	day	0.0035	714.00	2.50
	(d) For finishing with 10mm thick				
	cement plaster				
	cement plaster with cement mortar				
	1:3(1 Cement: 3 Coarse sand)				
	qty. for 9.72sqm. = 0.0972 cum				
3.8	Rate as per Item Number 3.8 of				
	SH: Mortars	cum	0.0972	5024.15	488.35
0155	Mason (average)	day	0.787	749.00	589.46
0115	Coolie	day	0.787	645.00	507.62
0101	Bhisti	day	0.262	714.00	187.07
9999	Scaffolding and sundries	L.S.	12.22	2.12	25.91
	(e) For laying blocks and filling joints				
	with Jamuna sand for filling joints				
	5mm (av.) thick				
6501	Sand zone V (Jamuna)	cum	0.005	1300.00	6.50
2335	Carriage of Jamuna sand	cum	0.005	163.93	0.82
0123	Mason (brick layer) 1st class	day	0.90	784.00	705.60
0115	Coolie	day	1.98	645.00	1277.10
0101	Bhisti	day	0.05	714.00	35.70
	TOTAL				8098.27 W
	Add 1 % Water charges on "W"				80.98
	TOTAL				8179.25 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1149.18
	TOTAL				9328.43 Y
	Add 15% CPOH on "Y"				1399.26
	TOTAL				10727.70 Z
	Add Cess @ 1% on "Z"				107.28
	Cost for 10sqm. or 0.9cum.				10834.97

Code	Description	Unit	Quantity	Rate	Amount
	Rate per cum.				12038.86
	Say				12038.85
	FOR DPA 30% LESS				**8427.195**

16.51X Sub Analysis X for sub analysis item Number 16.52Y

Code	Description	Unit	Quantity	Rate	Amount
	Sub Analysis 16.52X for use in sub analysis of 16.52Y				
	Details of cost for 1cum of lime Flyash mortar 1:2:3 (lime:2 flyash:3 coarse sand).				
	MATERIAL				
0773	Unslaked lime	quintal	1.52	300.00	456.00
1980	Flyash	cum	0.48	11.00	5.28
0982	Coarse sand (zone III)	cum	0.72	1500.00	1080.00
2208	Carriage of Lime	cum	0.24	163.93	39.34
2266	Carriage of Surkhi	cum	0.48	163.93	78.69
2203	Carriage of Coarse sand	cum	0.72	163.93	118.03
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	LABOUR				
	Labour for slaking the lime making, lime putty, grinding, measuring, carrying, depositing and mixing.				
0114	Beldar	day	0.90	645.00	580.50
0101	Bhisti	day	0.45	714.00	321.30
9999	Running and upkeep of mortar mill	L.S.	26.91	2.12	57.05
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				2764.85
	Cost of 1.00 cum				2764.85
	Say				2764.85
	FOR DPA 30% LESS				**1935.395**

16.51Y Sub Analysis Y for Item Number 16.52

Code	Description	Unit	Quantity	Rate	Amount
	Sub Analysis 'Y' (16.52Y) for use in Item No. 16.52				
	Details of cost for 1 cum. of cement concrete				
	MATERIAL				
	Lime Flyash mortar				
16.52X	Rate as per sub analysis of Item No 16.52X	cum	0.40	2764.85	1105.94
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.64	1400.00	896.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.21	1350.00	283.50
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	163.93	139.34
	LABOUR				
0114	Beldar	day	0.65	645.00	419.25
0115	Coolie	day	0.60	645.00	387.00
0101	Bhisti	day	0.27	714.00	192.78
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0128	Mate	day	0.04	714.00	28.56
9999	Hire and running charges of mixer	L.S.	26.91	2.12	57.05
9999	Sundries	L.S.	13.52	2.12	28.66
9999	Hire charges of steel moulds, table vibrators, rammers, bolts, nuts and washers etc.	L.S.	53.82	2.12	114.10
	TOTAL				3727.08
	Cost of 1.00 cum				3727.08
	Say				3727.10
	FOR DPA 30% LESS				**2608.97**

16.52 Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-

in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30.00 m length				
	MATERIAL				
8691	Punched tape concertina coil 600 mm dia 10 m openable length (Total length 90 m)	bundle	5.00	600.00	3000.00
	(Having 50 Nos. of rounds per 6 meter = 1 bundles)				
	Therefore, Nos. of bundles 30/10 =3bundles)				
8692	RBT reinforced barbed wire	metre	270.00	7.00	1890.00
	9 rounds = 9x30 = 270m				
8693	Turn buckle and strengthening bolt	each set	10.00	42.00	420.00
9999	G.I. staples clips etc.	L.S.	49.40	2.12	104.73
	LABOUR				
	Labour for fixing straightening cutting of tape/ coils & wire				
0114	Beldar	day	1.00	645.00	645.00
	0.50x2 = 1.00 Nos (Taken double due to height)				
0102	Blacksmith 1st class	day	0.50	784.00	392.00
0103	Blacksmith 2nd class	day	0.50	714.00	357.00
	TOTAL				6808.73 W
	Add 1 % Water charges on “W”				68.09
	TOTAL				6876.82 X
	Add GST on “X” (multiplying factor 0.1405)				966.19
	TOTAL				7843.01 Y
	Add 15% CPOH on “Y”				1176.45
	TOTAL				9019.46 Z
	Add Cess @ 1% on “Z”				90.19
	cost for 30.00 metre				9109.65
	cost per metre				303.66
	Say				303.65
	FOR DPA 30% LESS				**212.555**

16.53 Providing and laying Dense Graded Bituminous Macadam using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specificatons and directions of Engineer-in-Charge.

16.54.1 50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 195 cum (or 450 M.T.)				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality (percentage by weight of total mix)	tonne	22.50	38150.00	858375.00
2211	Carriage of Tar bitumen	tonne	22.50	163.93	3688.43
	Aggregate				
	Total weight of mix = 450 tonnes				
	Weight of bitumen = 22.50 tonnes				
	Weight of aggregate = 450 -22.50				

	= 427.50 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =427.50/1.5 =285cum Grading - II/19 mm (Nominal Size) 25 - 10mm size = 30% of 285 = 85.5 cum 10 - 5mm size = 28% of 285 = 79.8 cum 5mm and below = 40% of 285 = 114 cum				
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	42.75	1350.00	57712.50
	Qty = 85.5 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	42.75	1350.00	57712.50
	Qty = 85.5 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	39.90	1350.00	53865.00
	Qty = 79.8 * 50 /100				
0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	39.90	1400.00	55860.00
	Qty = 79.8 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	114.00	1400.00	159600.00
	Qty = 285 * 40 /100				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	279.30	163.93	45785.65
	Lime Filler @ 2% (percentage by weight of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	85.50	290.00	24795.00
2208	Carriage of Lime	cum	6.63	163.93	1086.86
	(consitering density of lime as 1.29 T per cum) V =8.55/1.29 = 6.63 cum				
	MACHINERY/ HIRE CHARGES:				
0062	Hot mix Plant -120 TPH capacity	hour	3.00	15000.00	45000.00
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	13000.00	39000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
0053	Tipper -5 Cum	tonne/km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	300.00	1170.00
	for initial break down rolling.(6*0.65)				
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	for intermediate rolling.(6*0.65)				
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction				
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	714.00	3570.00
	for checking line & levels				
	TOTAL				1459405.69 W
	Add 1 % Water charges on "W"				14594.06
	TOTAL				1473999.75 X
	Add GST on "X" (multiplying factor 0.1405)				207096.96
	TOTAL				1681096.71 Y

	Add 15% CPOH on "Y"				252164.51
	TOTAL				1933261.22 Z
	Add Cess @ 1% on "Z"				19332.61
	Cost for 195 cum(450 M.T.)				1952593.83
	Cost per cum.				10013.30
	Say				10013.30
	FOR DPA 30% LESS				**7009.31**

16.53.2 50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount
7309	Details of cost for 195 cum (or 450 M.T.)	tonne	22.50	38150.00	858375.00
2211	MATERIAL	tonne	22.50	163.93	3688.43
	Paving Asphalt VG-30 of approved quality (percentage by weight of total mix) Carriage of Tar bitumen				
	Aggregate				
	Total weight of mix = 450 tonnes Weight of bitumen = 22.50 tonnes Weight of aggregate = 450 -22.50				
	= 427.50 tonnes				
	Taking density of aggregate				
	= 1.5 tonne/cum				
	Volume of aggregate =427.50/1.5				
	=285cum				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Grading - II/19 mm (Nominal Size)				
	25 - 10mm size = 30% of 285 = 85.5 cum				
	10 - 5mm size = 28% of 285 = 79.8 cum				
	5mm and below = 40% of 285 = 114 cum				
0294	Stone Aggregate (Single size) :				
	25 mm nominal size	cum	42.75	1350.00	57712.50
	Qty = 85.5 * 50 /100				
0297	Stone Aggregate (Single size) :				
	10 mm nominal size	cum	42.75	1350.00	57712.50
	Qty = 85.5 * 50 /100				
0297	Stone Aggregate (Single size) :				
	10 mm nominal size	cum	39.90	1350.00	53865.00
	Qty = 79.8 * 50 /100				
0298	Stone Aggregate (Single size) :				
	06 mm nominal size	cum	39.90	1400.00	55860.00
	Qty = 79.8 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm				
	nominal size	cum	114.00	1400.00	159600.00
	Qty = 285 * 40 /100				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	279.30	163.93	45785.65
	Lime Filler @ 2% (percentage by				
	weight of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	85.50	290.00	24795.00
2208	Carriage of Lime	cum	6.63	163.93	1086.86
	(consitering density of lime as 1.29 T				
	per cum) V =8.55/1.29 = 6.63 cum				
	MACHINERY/ HIRE CHARGES:				
0076	Drum Type HMP of 60-90 TPH capacity				
	@ 75 tonne per hour actual output	hour	6.00	12000.00	72000.00
0064	Paver finisher Hydrostatic with sensor				
	control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity				
	(incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km				
	avarage lead)				
	450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne/km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to				

	cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	300.00	1170.00
	for initial break down rolling.(6*0.65)				
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	for intermediate rolling.(6*0.65)				
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth				
	wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom,				
	paver, roller, asphalt cutter and				
	assistancefor setting out lines, levels				
	and layout of construction				
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	714.00	3570.00
	for checking line & levels				
	TOTAL				1447405.69 W
	Add 1 % Water charges on "W"				14474.06
	TOTAL				1461879.75 X
	Add GST on "X" (multiplying				
	factor 0.1405)				205394.10
	TOTAL				1667273.85 Y
	Add 15% CPOH on "Y"				250091.08
	TOTAL				1917364.93 Z
	Add Cess @ 1% on "Z"				19173.65
	Cost for 195 cum(450 M.T.)				1936538.58
	Cost per cum.				9930.97
	Say				9930.95
	FOR DPA 30% LESS				**6951.665**

16.54 Providing and laying bituminous macadam using crushed stone aggregates of specified grading premixed with bituminous binder, transported to site by tippers, laid over a previously prepared surface with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specificatons and directions of Engineer-in-Charge.

16.54.1 50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount
7309	Details of cost for 205 cum (or 450 M.T.)	tonne	15.75	38150.00	600862.50
2211	MATERIAL	tonne	15.75	163.93	2581.90
0294	Paving Asphalt VG-30 of approved quality 3.5% of	cum	57.90	1350.00	78165.00
0297	450 MT = 15.75 MT	cum	57.90	1350.00	78165.00
	Carriage of Tar bitumen				
	Weight of mix = 205 * 2.5 = 450 tonnes Aggregate				
	Total weight of mix = 450 tonnes Weight of				
	bitumen = 15.75 tonnes Weight of aggregate = 450				
	-15.75 = 434.25 tonnes Taking density of				
	aggregate =				
	1.5 tonne/cum				
	Volume of aggregate =434.25/1.5 = 289.50cum				
	Grading - II/19 mm (Nominal Size) 25 - 10mm size				
	= 40% of 289.50				
	= 115.8 cum				
	10 - 5mm size = 40% of 289.50				
	= 115.8 cum				
	5mm and below = 20% of 289.50				
	= 57.9 cum				
	Stone Aggregate (Single size) : 25 mm nominal				
	size				
	Qty = 115.8 * 50 /100				
	Stone Aggregate (Single size) : 10 mm nominal				
	size				
	Qty = 115.8 * 50 /100				

Code	Description	Unit	Quantity	Rate	Amount
0297	Stone Aggregate (Single size) : 10 mm				
	nominal size	cum	57.90	1350.00	78165.00

	Qty = 115.8 * 50 /100				
0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	57.90	1400.00	81060.00
	Qty = 115.8 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	57.90	1400.00	81060.00
	Qty = 289.50 * 20 /100				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	289.50	163.93	47457.74
	MACHINERY				
0062	Hot mix Plant -120 TPH capacity	hour	3.00	15000.00	45000.00
	@75tonne per hour actual output				
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	13000.00	39000.00
	@75tonne per hour actual output				
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
	@75tonne per hour actual output				
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km avarage lead)				
	450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne/km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading X * 10 / 100 = 13500.00 * 10 / 100				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	300.00	1170.00
	for initial break down rolling.(6*0.65)				
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	for intermediate rolling.(6*0.65)				
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction				
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	714.00	3570.00
	for checking line & levels				
	TOTAL				1188441.89 W
	Add 1 % Water charges on "W"				11884.42
	TOTAL				1200326.31 X
	Add GST on "X" (multiplying factor 0.1405)				168645.85
	TOTAL				1368972.16 Y
	Add 15% CPOH on "Y"				205345.82
	TOTAL				1574317.98 Z
	Add Cess @ 1% on "Z"				15743.18
	Cost for 205 cum(450 M.T.)				1590061.16
	Cost per cum.				7756.40
	Say				7756.40
	FOR DPA 30% LESS				**5429.48**

16.54.2 50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 205 cum (or 450 M.T.)				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality	tonne	15.75	38150.00	600862.50
	3.5% of 450 MT = 15.75 MT				

Code	Description	Unit	Quantity	Rate	Amount
2211	Carriage of Tar bitumen	tonne	15.75	163.93	2581.90
	Weight of mix = 205 * 2.5 = 450 tonnes				
	Aggregate				
	Total weight of mix = 450 tonnes Weight of				
	bitumen = 15.75 tonnes				
	Weight of aggregate = 450 -15.75 =				
	434.25 tonnes				
	Taking density of aggregate =				
	1.5 tonne/cum				
	Volume of aggregate =434.25/1.5				
	=289.50cum				
	Grading - II/19 mm (Nominal Size)				
	25 - 10mm size = 40% of 289.50				
	= 115.8 cum				
	10 - 5mm size = 40% of 289.50				
	= 115.8 cum				
	5mm and below = 20% of 289.50				
	= 57.9 cum				
0294	Stone Aggregate (Single size) : 25 mm				
	nominal size	cum	57.90	1350.00	78165.00
	Qty = 115.8 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm				
	nominal size	cum	57.90	1350.00	78165.00
	Qty = 115.8 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm				
	nominal size	cum	57.90	1350.00	78165.00
	Qty = 115.8 * 50 /100				
0298	Stone Aggregate (Single size) : 06 mm				
	nominal size	cum	57.90	1400.00	81060.00
	Qty = 115.8 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm				
	nominal size	cum	57.90	1400.00	81060.00
	Qty = 289.50 * 20 /100				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	289.50	163.93	47457.74
	MACHINERY				
0076	Drum Type HMP of 60-90 TPH				
	capacity @ 75 tonne per hour actual				
	output	hour	6.00	12000.00	72000.00
	@75tonne per hour actual output				
0064	Paver finisher Hydrostatic with sensor				
	control 100 TPH	hour	6.00	1500.00	9000.00
	@75tonne per hour actual output				
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0052	Front end loader 1 cum bucket capacity				
	(incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km				
	avarage lead)				
	450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to				
	cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	300.00	1170.00
	for initial break down rolling.(6*0.65)				
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	for intermediate rolling.(6*0.65)				
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth				
	wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom,				
	paver, roller, asphalt cutter and				

	assistance for setting out lines, levels and layout of construction				
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1176441.89 W
	Add 1 % Water charges on "W"				11764.42
	TOTAL				1188206.31 X
	Add GST on "X" (multiplying factor 0.1405)				166942.99
	TOTAL				1355149.30 Y
	Add 15% CPOH on "Y"				203272.39
	TOTAL				1558421.69 Z
	Add Cess @ 1% on "Z"				15584.22
	Cost for 205 cum(450 M.T.)				1574005.91
	Cost per cum.				7678.08
	Say				7678.10
	FOR DPA 30% LESS				**5374.67**

16.55 Providing and laying semi- dense Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.

16.55.1 25 mm compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 195 cum (450 tonnes) Area covered for 25 mm thickness =7800 sqm				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality	tonne	22.50	38150.00	858375.00
	5% of 450 MT = 22.50 MT				
2211	Carriage of Tar bitumen	tonne	22.50	163.93	3688.43
	Aggregate				
	Total weight of mix = 450 tonnes				
	Weight of bitumen = 22.50 tonnes				
	Weight of aggregate = 450 -22.50 = 427.50 tonnes				
	Taking density of aggregate = 1.5 tonne/cum				
	Volume of aggregate =427.50/1.5 =285cum				
	Grading - II/19 mm (Nominal Size)				
	9.5 - 4.75 mm size = 57% of 285 = 162.45 cum				
	4.75mm and below = 41% of 285 = 116.85 cum				
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	81.225	1350.00	109653.75
	Qty = 162.45 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	81.225	1350.00	109653.75
	Qty = 162.45 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm nominal size nominal size	cum	116.85	1400.00	163590.00
	Qty = 285 * 41 /100				
2202	Carriage of Stone aggregate below 40 mm nominal size nominal size	cum	279.30	163.93	45785.65
	Lime Filler @ 2% (percentage by weight of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	85.50	290.00	24795.00
2208	Carriage of Lime	cum	6.63	163.93	1086.86
	(consitering density of lime as 1.29 T per cum) V =8.55/1.29 = 6.63 cum				

	MACHINERY/ HIRE CHARGES:				
0062	Hot mix Plant -120 TPH capacity	hour	3.00	15000.00	45000.00
	@75tonne per hour actual output				
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	13000.00	39000.00
	@75tonne per hour actual output				
0064	Paver finisher Hydrostatic with sensor				
	control 100 TPH	hour	6.00	1500.00	9000.00
	@75tonne per hour actual output				
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket				
	capacity (incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken				
	10km avarage lead)				
	450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to				
	cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	300.00	1170.00
	for initial break down rolling.(6*0.65)				
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	for intermediate rolling.(6*0.65)				
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth				
	wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom,				
	paver, roller, asphalt cutter and				
	assistance for setting out lines, levels				
	and layout of construction for checking				
	line & levels				
	TOTAL				1453983.19 W
	Add 1 % Water charges on "W"				14539.83
	TOTAL				1468523.02 X
	Add GST on "X" (multiplying				
	factor 0.1405)				206327.48
	TOTAL				1674850.51 Y
	Add 15% CPOH on "Y"				251227.58
	TOTAL				1926078.08 Z
	Add Cess @ 1% on "Z"				19260.78
	Cost for 7800 Sqm				1945338.86
	Cost per sqm				249.40
	Say				249.40
	FOR DPA 30% LESS				**174.58**

16.55.2 25 mm compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount

7309 2211	Details of cost for 195 cum (450 tonnes) Area covered for 25 mm thickness =7800 sqm MATERIAL Paving Asphalt VG-30 of approved quality 5% of 450 MT = 22.50 MT Carriage of Tar bitumen Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 22.50 tonnes Weight of aggregate = 450 -22.50 = 427.50 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =427.50/1.5 =285cum Grading - II/19 mm (Nominal Size) 9.5 - 4.75 mm size = 57% of 285 = 162.45 cum 4.75mm and below = 41% of 285 = 116.85 cum	tonne tonne	22.50 22.50	38150.00 163.93	858375.00 3688.43

Code	Description	Unit	Quantity	Rate	Amount
0296	Stone Aggregate (Single size) :				
	12.5 mm nominal size	cum	81.225	1350.00	109653.75
	Qty = 162.45 * 50 /100				
0297	Stone Aggregate (Single size) :				
	10 mm nominal size	cum	81.225	1350.00	109653.75
	Qty = 162.45 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm				
	nominal size	cum	116.85	1400.00	163590.00
	Qty = 285 * 41 /100				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	279.30	163.93	45785.65
	Lime Filler @ 2% (percentage by				
	weight of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	85.5	290.00	24795.00
2208	Carriage of Lime	cum	6.63	163.93	1086.86
	(consitering density of lime as 1.29 T				
	per cum) V =8.55/1.29 = 6.63 cum				
	MACHINERY/ HIRE CHARGES:				
0076	Drum Type HMP of 60-90 TPH				
	capacity @ 75 tonne per hour actual				
	output	hour	6.00	12000.00	72000.00
0064	Paver finisher Hydrostatic with sensor				
	control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity				
	(incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km				
	avarage lead)				
	450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to				
	cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	300.00	1170.00
	for initial break down rolling.(6*0.65)				
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	for intermediate rolling.(6*0.65)				
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth				
	wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom,				
	paver, roller, asphalt cutter and				
	assistance for setting out lines, levels				
	and layout of construction for checking				
	line & levels				
	TOTAL				1441983.19 W

	Add 1 % Water charges on "W"				14419.83
	TOTAL				1456403.02 X
	Add GST on "X" (multiplying factor 0.1405)				204624.62
	TOTAL				1661027.65 Y
	Add 15% CPOH on "Y"				249154.15
	TOTAL				1910181.79 Z
	Add Cess @ 1% on "Z"				19101.82
	Cost for 7800 Sqm				1929283.61
	Cost per sqm				247.34
	Say				247.35
	FOR DPA 30% LESS				**173.145**

16.56 Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.

16.56.1 40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 191 cum (450 tonnes)				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	38150.00	944212.50
2211	Carriage of Tar bitumen	tonne	24.75	163.93	4057.27
	Aggregate				
	Total weight of mix = 450 tonnes				
	Weight of bitumen = 24.75 tonnes				
	Weight of aggregate = 450 -24.75 = 425.25 tonnes				
	Taking density of aggregate = 1.5 tonne/cum				
	Volume of aggregate =425.25/1.5 =283.50cum				
	Grading - II/19 mm (Nominal Size)				
	13.2 - 10mm size = 30% of 283.50 = 85.05 cum				
	10 - 5mm size = 25% of 283.50 = 70.88 cum				
	5mm and below = 42% of 283.50 = 119.07 cum				
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1350.00	47844.00
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1400.00	166698.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	275.00	163.93	45080.75
	Lime Filler @ 2% (percentage by weight of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime	cum	9.89	163.93	1621.27

	(consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum				
	MACHINERY/ HIRE CHARGES:				
0062	Hot mix Plant -120 TPH capacity	hour	3.00	15000.00	45000.00
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	13000.00	39000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km avarage lead)				
	450x10=4500 tonne km				
	Topper 10 tonne capacity (Taken 10km avarage lead)				
	450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction				
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1551876.05 W
	Add 1 % Water charges on "W"				15518.76
	TOTAL				1567394.81 X
	Add GST on "X" (multiplying factor 0.1405)				220218.97
	TOTAL				1787613.78 Y
	Add 15% CPOH on "Y"				268142.07
	TOTAL				2055755.84 Z
	Add Cess @ 1% on "Z"				20557.56
	Cost for 191 cum(450 Tonne)				2076313.40
	Cost per cum.				10870.75
	Say				10870.75
	FOR DPA 30% LESS				**7609.525**

16.56.2 40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in Batch Type Hot Mix Plant of 100- 120 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 191 cum (450 tonnes)				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	38150.00	944212.50
2211	Carriage of Tar bitumen	tonne	24.75	163.93	4057.27
	Aggregate				
	Total weight of mix = 450 tonnes				
	Weight of bitumen = 24.75 tonnes				
	Weight of aggregate = 450 -24.75 = 425.25 tonnes				
	Taking density of aggregate =				

	1.5 tonne/cum				
	Volume of aggregate =425.25/1.5				
	=283.50cum				
	Grading - II/19 mm (Nominal Size)				
	13.2 - 10mm size = 30% of 283.50				
	= 85.05 cum				
	10 - 5mm size = 25% of 283.50				
	= 70.88 cum				
	5mm and below = 42% of 283.50				
	=119.07 cum				
	Waste Plastic @ 8% of the weigh of				
	bitumen i.e. 24.75*8%				
7280	Waste plastic additive	tonne	1.98	38100.00	75438.00
0296	Stone Aggregate (Single size) :				
	12.5 mm nominal size	cum	42.525	1350.00	57408.75
	Qty = 85.05 * 50 /100				
0297	Stone Aggregate (Single size) :				
	10 mm nominal size	cum	42.525	1350.00	57408.75
	Qty = 85.05 * 50 /100				
0297	Stone Aggregate (Single size) :				
	10 mm nominal size	cum	35.44	1350.00	47844.00
	Qty = 70.88 * 50 /100				
0298	Stone Aggregate (Single size) :				
	06 mm nominal size	cum	35.44	1400.00	49616.00
	Qty = 70.88 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm				
	nominal size	cum	119.07	1400.00	166698.00
	Qty = 283.5 * 40 /100				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	275.00	163.93	45080.75
	Lime Filler @ 2% (percentage by				
	weight of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime	cum	9.89	163.93	1621.27
	(consitering density of lime as 1.29 T				
	per cum) V = 12.758/1.29 = 9.89 cum				
	MACHINERY/ HIRE CHARGES:				
0062	Hot mix Plant -120 TPH capacity	hour	3.00	15000.00	45000.00
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	13000.00	39000.00
0064	Paver finisher Hydrostatic with sensor				
	control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity				
	(incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km				
	avarage lead)				
	450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500	3.30	14850.00
	Add 10 per cent of cost of carriage to				
	cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	300.00	1170.00
	for initial break down rolling.(6*0.65)				
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	for intermediate rolling.(6*0.65)				
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth				
	wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom,				
	paver, roller, asphalt cutter and				
	assistance for setting out lines, levels				
	and layout of construction				
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	714.00	3570.00

	for checking line & levels				
	TOTAL				1627314.05 W
	Add 1 % Water charges on "W"				16273.14
	TOTAL				1643587.19 X
	Add GST on "X" (multiplying factor 0.1405)				230924.00
	TOTAL				1874511.19 Y
	Add 15% CPOH on "Y"				281176.68
	TOTAL				2155687.86 Z
	Add Cess @ 1% on "Z"				21556.88
	Cost for 191 cum(450 Tonne)				2177244.74
	Cost per cum.				11399.19
	Say				11399.20
	FOR DPA 30% LESS				**7979.44**

16.56.3 40/50 mm compacted thickness with bitumen of grade PMB-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount
0312	Details of cost for 191 cum (450 tonnes) MATERIAL Bitumen grade PMB - 40 @5.50% (percentage by weight of total mix	M.T.	24.75	32950.00	815512.50
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
2211	Carriage of Tar bitumen	tonne	24.75	163.93	4057.27
	Aggregate				
	Total weight of mix = 450 tonnes				
	Weight of bitumen = 24.75 tonnes				
	Weight of aggregate = 450 -24.75 = 425.25 tonnes				
	Taking density of aggregate = 1.5 tonne/cum				
	Volume of aggregate =425.25/1.5 =283.50cum				
	Grading - II/19 mm (Nominal Size)				
	13.2 - 10mm size = 30% of 283.50 = 85.05 cum				
	10 - 5mm size = 25% of 283.50 = 70.88 cum				
	5mm and below = 42% of 283.50 = 119.07 cum				
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	42.525	1350.00	57408.75
	Qty = 85.05 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	42.525	1350.00	57408.75
	Qty = 85.05 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	35.44	1350.00	47844.00
	Qty = 70.88 * 50 /100				
0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	35.44	1400.00	49616.00
	Qty = 70.88 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	119.07	1400.00	166698.00
	Qty = 283.5 * 40 /100				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	275.00	163.93	45080.75
	Lime Filler @ 2% (percentage by weight of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime	cum	9.89	163.93	1621.27
	(consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum				
	MACHINERY/ HIRE CHARGES:				

0062	Hot mix Plant -120 TPH capacity	hour	3.00	15000.00	45000.00
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	13000.00	39000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	645.00	9030.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1423176.05 W
	Add 1 % Water charges on "W"				14231.76
	TOTAL				1437407.81 X
	Add GST on "X" (multiplying factor 0.1405)				201955.80
	TOTAL				1639363.60 Y
	Add 15% CPOH on "Y"				245904.54
	TOTAL				1885268.14 Z
	Add Cess @ 1% on "Z"				18852.68
	Cost for 191 cum(450 Tonne)				1904120.82
	Cost per cum.				9969.22
	Say				9969.20
	FOR DPA 30% LESS				**6978.44**

16.56.4 40/50 mm compacted thickness with bitumen of grade CRMB-60 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount
7741	Details of cost for 191 cum (450 tonnes)	tonne	24.75	29150.00	721462.50
2211	MATERIAL	tonne	24.75	163.93	4057.27
	Modified Bitumen Refinary produced CRMB - 60 @5.50% (percentage by weight of total mix Carriage of Tar bitumen Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 24.75 tonnes Weight of aggregate = 450 -24.75 = 425.25 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =425.25/1.5 =283.50cum				

Code	Description	Unit	Quantity	Rate	Amount
	Grading - II/19 mm (Nominal Size)				
	13.2 - 10mm size = 30% of 283.50				
	= 85.05 cum				
	10 - 5mm size = 25% of 283.50				
	= 70.88 cum				
	5mm and below = 42% of 283.50				

	= 119.07 cum				
0296	Stone Aggregate (Single size) :				
	12.5 mm nominal size	cum	42.525	1350.00	57408.75
	Qty = 85.05 * 50 /100				
0297	Stone Aggregate (Single size) :				
	10 mm nominal size	cum	42.525	1350.00	57408.75
	Qty = 85.05 * 50 /100				
0297	Stone Aggregate (Single size) :				
	10 mm nominal size	cum	35.44	1350.00	47844.00
	Qty = 70.88 * 50 /100				
0298	Stone Aggregate (Single size) : 06 mm				
	nominal size	cum	35.44	1400.00	49616.00
	Qty = 70.88 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm				
	nominal size	cum	119.07	1400.00	166698.00
	Qty = 283.5 * 40 /100				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	275.00	163.93	45080.75
	Lime Filler @ 2% (percentage by				
	weight of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime	cum	9.89	163.93	1621.27
	(consitering density of lime as 1.29 T				
	per cum) V = 12.758/1.29 = 9.89 cum				
	MACHINERY/ HIRE CHARGES:				
0062	Hot mix Plant -120 TPH capacity	hour	3.00	15000.00	45000.00
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	13000.00	39000.00
0064	Paver finisher Hydrostatic with sensor				
	control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity				
	(incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km				
	avarage lead)				
	450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to				
	cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	300.00	1170.00
	for initial break down rolling.(6*0.65)				
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	for intermediate rolling.(6*0.65)				
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth				
	wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom,				
	paver, roller, asphalt cutter and				
	assistance for setting out lines, levels				
	and layout of construction				
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	714.00	3570.00
	for checking line & levels				
	TOTAL				1329126.05 W
	Add 1 % Water charges on "W"				13291.26
	TOTAL				1342417.31 X
	Add GST on "X" (multiplying				
	factor 0.1405)				188609.63
	TOTAL				1531026.94 Y
	Add 15% CPOH on "Y"				229654.04
	TOTAL				1760680.98 Z
	Add Cess @ 1% on "Z"				17606.81
	Cost for 191 cum(450 Tonne)				1778287.79
	Cost per cum.				9310.41

	Say				9310.40
	FOR DPA 30% LESS				**6517.28**

16.56.5 40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount
7309	Details of cost for 191 cum (450 tonnes)	tonne	24.75	38150.00	944212.50
2211	MATERIAL	tonne	24.75	163.93	4057.27
0296	Paving Asphalt VG-30 of approved quality @5.50%	cum	42.525	1350.00	57408.75
0297	(percentage by weight of total mix Carriage of Tar bitumen Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 24.75 tonnes Weight of aggregate = 450 -24.75 = 425.25 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =425.25/1.5 =283.50cum Grading - II/19 mm (Nominal Size) 13.2 - 10mm size = 30% of 283.50 = 85.05 cum 10 - 5mm size = 25% of 283.50 = 70.88 cum 5mm and below = 42% of 283.50 = 119.07 cum Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100 Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75

Code	Description	Unit	Quantity	Rate	Amount
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1350.00	47844.00
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1400.00	166698.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	275.00	163.93	45080.75
	Lime Filler @ 2% (percentage by weight of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum	cum	9.89	163.93	1621.27
	MACHINERY/ HIRE CHARGES:				
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	12000.00	72000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00

0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	645.00	9030.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1539876.05 W
	Add 1 % Water charges on "W"				15398.76
	TOTAL				1555274.81 X
	Add GST on "X" (multiplying factor 0.1405)				218516.11
	TOTAL				1773790.92 Y
	Add 15% CPOH on "Y"				266068.64
	TOTAL				2039859.55 Z
	Add Cess @ 1% on "Z"				20398.60
	Cost for 191 cum(450 Tonne)				2060258.15
	Cost per cum.				10786.69
	Say				10786.70
	FOR DPA 30% LESS				**7550.69**

16.56.6 40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 191 cum (450 tonnes)				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	38150.00	944212.50
2211	Carriage of Tar bitumen	tonne	24.75	163.93	4057.27
	Waste Plastic @ 8% of the weigh of bitumen i.e. 24.75*8%				
7280	Waste plastic additive	tonne	1.98	38100.00	75438.00
	Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 24.75 tonnes Weight of aggregate = 450 -24.75 = 425.25 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =425.25/1.5 =283.50cum Grading - II/19 mm (Nominal Size) 13.2 - 10mm size = 30% of 283.50 = 85.05 cum 10 - 5mm size = 25% of 283.50 = 70.88 cum 5mm and below = 42% of 283.50 = 119.07 cum				
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1350.00	47844.00

0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	35.44	1400.00	49616.00
	Qty = 70.88 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	119.07	1400.00	166698.00
	Qty = 283.5 * 40 /100				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	275.00	163.93	45080.75
	Lime Filler @ 2% (percentage by weight of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime	cum	9.89	163.93	1621.27
	(consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum				
	MACHINERY/ HIRE CHARGES:				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	12000.00	72000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km avarage lead)				
	450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	300.00	1170.00
	for initial break down rolling.(6*0.65)				
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	for intermediate rolling.(6*0.65)				
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction				
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	714.00	3570.00
	for checking line & levels				
	TOTAL				1615314.05 W
	Add 1 % Water charges on "W"				16153.14
	TOTAL				1631467.19 X
	Add GST on "X" (multiplying factor 0.1405)				229221.14
	TOTAL				1860688.33 Y
	Add 15% CPOH on "Y"				279103.25
	TOTAL				2139791.57 Z
	Add Cess @ 1% on "Z"				21397.92
	Cost for 191 cum(450 Tonne)				2161189.49
	Cost per cum.				11315.13
	Say				11315.15
	FOR DPA 30% LESS				**7920.605**

16.56.7 40/50 mm compacted thickness with bitumen of grade PMB-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 191 cum (450 tonnes)				
	MATERIAL				
0312	Bitumen grade PMB - 40	M.T.	24.75	32950.00	815512.50
	@5.50% (percentage by weight of total mix				
2211	Carriage of Tar bitumen Aggregate	tonne	24.75	163.93	4057.27
0296	Total weight of mix = 450 tonnes Weight of				
	bitumen = 24.75 tonnes Weight of aggregate = 450	cum	42.525	1350.00	57408.75
	-24.75				
0297	= 425.25 tonnes				
	Taking density of aggregate =	cum	42.525	1350.00	57408.75
0297	1.5 tonne/cum				
	Volume of aggregate =425.25/1.5	cum	35.44	1350.00	47844.00
0298	=283.50cum				
	Grading - II/19 mm (Nominal Size) 13.2 - 10mm				
	size = 30% of 283.50	cum	35.44	1400.00	49616.00
2903	= 85.05 cum				
	10 - 5mm size = 25% of 283.50	cum	119.07	1400.00	166698.00
2202	= 70.88 cum				
	5mm and below = 42% of 283.50				
	= 119.07 cum	cum	275.00	163.93	45080.75
0777	Stone Aggregate (Single size) :	quintal	127.60	290.00	37004.00
2208	12.5 mm nominal size Qty = 85.05 * 50 /100	cum	9.89	163.93	1621.27
0076	Stone Aggregate (Single size) : 10 mm nominal size				
	Qty = 85.05 * 50 /100	hour	6.00	12000.00	72000.00
0064	Stone Aggregate (Single size) : 10 mm nominal size	hour	6.00	1500.00	9000.00
0069	Qty = 70.88 * 50 /100	hour	6.00	400.00	2400.00
0052	Stone Aggregate (Single size) : 06 mm nominal size				
	Qty = 70.88 * 50 /100	hour	6.00	1300.00	7800.00
0053	Stone chippings/ screenings 4.75 mm nominal	tonne km	4500.00	3.30	14850.00
	size				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	300.00	1170.00
	for initial break down rolling.(6*0.65)				
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	for intermediate rolling.(6*0.65)				
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth				
	wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom,				
	paver, roller, asphalt cutter and				
	assistance for setting out lines, levels				
	and layout of construction				
0139	Skilled Beldar (for floor rubbing etc.)	day	5.00	714.00	3570.00
	for checking line & levels				
	TOTAL				1411176.05 W
	Add 1 % Water charges on "W"				14111.76
	TOTAL				1425287.81 X
	Add GST on "X" (multiplying				
	factor 0.1405)				200252.94
	TOTAL				1625540.74 Y
	Add 15% CPOH on "Y"				243831.11
	TOTAL				1869371.85 Z
	Add Cess @ 1% on "Z"				18693.72
	Cost for 191 cum(450 Tonne)				1888065.57
	Cost per cum.				9885.16
	Say				9885.15
	FOR DPA 30% LESS				**6919.605**

16.56.8 40/50 mm compacted thickness with bitumen of grade CRMB-60 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate	Amount

7741	Details of cost for 191 cum (450 tonnes)	tonne	24.75	29150.00	721462.50
2211	MATERIAL Modified Bitumen Refinary produced CRMB - 60 @5.50% (percentage by weight of total mix Carriage of Tar bitumen Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 24.75 tonnes Weight of aggregate = 450 -24.75 = 425.25 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =425.25/1.5 = 283.50cum Grading - II/19 mm (Nominal Size) 13.2 - 10mm size = 30% of 283.50 = 85.05 cum	tonne	24.75	163.93	4057.27

Code	Description	Unit	Quantity	Rate	Amount
	10 - 5mm size = 25% of 283.50				
	= 70.88 cum				
	5mm and below = 42% of 283.50				
	=119.07 cum				
0296	Stone Aggregate (Single size) :				
	12.5 mm nominal size	cum	42.525	1350.00	57408.75
	Qty = 85.05 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm				
	nominal size	cum	42.525	1350.00	57408.75
	Qty = 85.05 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm				
	nominal size	cum	35.44	1350.00	47844.00
	Qty = 70.88 * 50 /100				
0298	Stone Aggregate (Single size) : 06 mm				
	nominal size	cum	35.44	1400.00	49616.00
	Qty = 70.88 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm				
	nominal size	cum	119.07	1400.00	166698.00
	Qty = 283.5 * 40 /100				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	275.00	163.93	45080.75
	Lime Filler @ 2% (percentage by weight				
	of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime	cum	9.89	163.93	1621.27
	(consitering density of lime as 1.29				
	T per cum) V = 12.758/1.29 = 9.89 cum				
	MACHINERY/ HIRE CHARGES:				
0076	Drum Type HMP of 60-90 TPH capacity				
	@ 75 tonne per hour actual output	hour	6.00	12000.00	72000.00
0064	Paver finisher Hydrostatic with sensor				
	control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity				
	(incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km				
	avarage lead)				
	450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to				
	cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	3.90	300.00	1170.00
	for initial break down rolling.(6*0.65)				
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	for intermediate rolling.(6*0.65)				
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth				
	wheeled tandem roller.(6*0.65)				
	LABOUR				

0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction				
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1317126.05 W
	Add 1 % Water charges on "W"				13171.26
	TOTAL				1330297.31 X
	Add GST on "X" (multiplying factor 0.1405)				186906.77
	TOTAL				1517204.08 Y
	Add 15% CPOH on "Y"				227580.61
	TOTAL				1744784.69 Z
	Add Cess @ 1% on "Z"				17447.85
	Cost for 191 cum(450 Tonne)				1762232.54
	Cost per cum.				9226.35
	Say				9226.35
	FOR DPA 30% LESS				**6458.445**

16.57 Manufacturing, supplying and fixing retro reflective sign boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated type heat activated retro reflective sheeting conforming to type - IV of ASTM-D 4956-01 in blue and silver white or other colour combination including subject matter, message (bi-lingual), symbols and borders etc. as per IRC ; 67:2001, pasted on substrate by an adhesive backing which shall be activated by applying heat and pressure conforming to class -2 of ASTM-D-4956-01 and fixing the same with suitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S. angle iron of size 25x25x3 mm along with theft resistant measures, mounted and fixed with 2 Nos. M.S. angles of size 35x35x5 mm to a vertical post made up to M.S. Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x5 mm at the bottom end and including making holes in pipes, angles flats, providing & fixing M.S. message plate of required size, steel work to be painted with two or more coats of synthetic enamel paint of required shade and of approved brand & manufacture over priming coat of zinc chromate yellow primer (vertical MS-Tee support to be painted in black and white colours).Backside of aluminium sheet to be painted with two or more coats of epoxy paint over and including appropriate priming coat including all leads and lifts etc. complete as per drawing , specification and direction of Engineer-in-charge.

16.57.1 Mandatory/ Regulatory sign boards of 900 mm diametre with support length of 3750 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details cost for 1 no. of 0.636 sqm MATERIAL Aluminium sheet 2 mm thick 3.14/4x(0.9)x(0.9)=0.636 sqm add 10% wastage = 0.064 i.e. 0.700sqm @ 5.60kg/ sqm = 3.92kg				
2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	3.92	240.00	940.80
2302	Carriage of G.I. sheet and accessories 3.92kg or 0.00392 MT	tonne	0.00392	145.72	0.57
	High intensity retro reflective sheet = 0.70 sqm. High intensity sheet for lettering / sign and border etc.				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Taking 40% Area =0.28sqm,total = 0.70 + 0.28 = 0.98 sqm				
8690	High intensity retro - reflective sheet	sqm	0.98	1443.00	1414.14
	Steel work				
	Supporting frame 25x25x3mm for 900mm dia board:- 3.14D=3.1416x0.90=2.83 metre @ 1.10kg/m				
	Angle iron 35x35x.5mm for fixing the support frame with vertical Tee-iron support post 2x0.05=0.10m @ 2.6 kg/m = 0.26kg				
	Vertical post of M.S. tee of section ISNT 50x50x6mm = 3.75 metre @ 4.50kg/m = 16.88 kg				

	Bass plate to be welded at bottom end of tee (As hold fast) (100x100x5mm)x7850/133)=0.39kg, total = 3.11 + 0.26 +16.88 + 0.39 =				
	Add wastage @ 5% = 1.03				
	Total = 20.64 + 1.03 = 21.67kg.				
10.2	Rate as per item no 10.2 of SH : Steel work	kg	21.67	78.20	1694.59 A
	LABOUR				
0128	Mate	day	0.01	714.00	7.14
0114	Beldar	day	0.25	645.00	161.25
9999	Cost of material for drilling holes, nut bolts & rivets, fabrication etc.	L.S.	65.00	2.12	137.80
	Painting with synthetic enamel paint on steel work				
	support frame 25x25x3mm =2.83x0.10=0.283 sqm				
	Fixing angle 35x35x5mm = 2x0.50x0.14=0.014 sqm				
	Vertical post Tee 50x50x6mm =3.75x0.20=0.750sqm				
	Base plate 100x100x5mm				
	Surface area = 2x[0.10x0.10] =0.02				
	4x0.10x0.005 = 0.002				
	Total = 1.069 sqm				
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.07	131.45	140.65 A
	Painting with epoxy paint on back side of aluminium sheet.				
13.52.1	Rate as per Item no. 13.52.1 of SH: Finishing	sqm	0.636	201.70	128.28 A
9999	Sundries and hold fast etc.	L.S.	78.00	2.12	165.36
	TOTAL				4790.59 W
	Add 1 % Water charges on "W-A"				28.27
	TOTAL				4818.86 X
	Add GST on "X-A" (multiplying factor 0.1405)				401.17
	TOTAL				5220.03 Y
	Add 15% CPOH on "Y-A"				488.48
	TOTAL				5708.51 Z
	Add Cess @ 1% on "Z-A"				37.45
	Cost of 1 no.				5745.96
	Say				5745.95
	FOR DPA 30% LESS				**4022.165**

16.57.2 Cautionary /warning sign boards of equilateral triangular shape having each side of 900 mm with support length of 3650 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details cost for 1 board of 0.35 sqm				
	MATERIAL				
	Aluminium sheet 2 mm thick				
	Area 1/2x(0.9)x(0.78)=0.35 sqm				
	add 10% wastage = 0.04 i.e. 0.39sqm @ 5.60kg/ sqm = 2.18kg				
2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	2.18	240.00	523.20
2302	Carriage of G.I. sheet and accessories 2.18kg or 0.00218 MT	tonne	0.00218	145.72	0.32
	High intensity retro reflective sheet = 0.39 sqm.				
	High intensity sheet for lettering / sign/ symbol/ border etc.				
	Taking 40% Area =0.16sqm,				
	total = 0.39 + 0.16 = 0.55 sqm				
8690	High intensity retro - reflective sheet	sqm	0.55	1443.00	793.65

	Steel work				
	Angle iron frame 25x25x3mm 3x0.90				
	= 2.70 metre				
	@ 1.10kg/m				
	Angle iron 35x35x.5mm for fixing the				
	support frame to Tee- iron support post				
	2x0.05=0.10m @ 2.6 kg/m = 0.26kg				
	Vertical post of M.S. tee of section				
	ISNT 50x50x6mm = 1x3.65=3.65m @				
	4.50kg/m =16.43kg				
	Bass plate 100x100x5mm connected to				
	bottom end of vertocal tee.				
	(0.10x0.10x0.005x7850kg =0.39kg,				
	total = 2.97+ 0.26 + 16.43 + 0.39				
	= 20.05kg.				
	Add wastage @ 5% = 1.00,				
	total = 20.05 + 1.00 = 21.05kg				
10.2	Rate as per item no 10.2 of				
	SH : Steel work	kg	21.05	78.20	1646.11 A
	LABOUR				
0128	Mate	day	0.01	714.00	7.14
0114	Beldar	day	0.25	645.00	161.25
9999	Cost of material for drilling holes,				
	nut bolts & rivets, fabrication etc.	L.S.	65.00	2.12	137.80
	Painting with synthetic enamel paint on				
	Angle iron .				
	support frame 25x25x3mm				
	=1x2.7x0.10=0.27 sqm.				
	Angle 35x35x5mm				
	= 2x0.50x0.14=0.014 sqm				
	Tee 50x50x6mm				
	=1x3.65x0.20 =0.73sqm				
	Base plate to be welded at bottom end of				
	Tee 100x100x5mm				
	0.022 sqm				
	Total = 1.036 sqm				
13.61.1	Rate as per item no 13.61.1 of				
	SH : Finishing	sqm	1.036	131.45	136.18 A
	Painting with epoxy paint on back side				
	of aluminium sheet. 0.35 sqm				
13.52.1	Rate as per Item no. 13.52.1 of				
	SH: Finishing	sqm	0.35	201.70	70.60 A
9999	Sundries & hold fast etc.	L.S.	65.00	2.12	137.80
	TOTAL				3614.04 W
	Add 1 % Water charges on "W-A"				17.61
	TOTAL				3631.66 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				249.92
	TOTAL				3881.57 Y
	Add 15% CPOH on "Y-A"				304.30
	TOTAL				4185.88 Z
	Add Cess @ 1% on "Z-A"				23.33
	Cost of 1 board.				4209.21
	Say				4209.20
	FOR DPA 30% LESS				**2946.44**

16.58 Manufacturing, supplying and fixing retro reflective overhead signage boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity and encapsulated lens type heat activated retro reflective sheeting conforming to type - III of ASTM-D-4956-01 as approved by Engineer-in-charge, letters, borders etc. as per IRC : 67-2001 in silver white with blue colour back ground and with high intensity grade, pasted on substrate by pressure sensitive adhesive backing which shall be activated by applying pressure conforming to class II of ASTM-D-4956-01 and fixing the same to the plate of structural frame work by means of suitable sized aluminium alloys, rivets or bolts & nuts @ 300 mm centre to centre all along the periphery as well as in two vertical rows along with theft resistant measures, including the cost of painting with two or more coats of epoxy paint in grey colour on the back side of aluminium sheet including appropriate priming coat. The rate includes the cost of rounding off the corners, lowering down the structural frame work from the gantry, fixing and erecting the same in position all complete as per drawings, specification and direction of the engineer-in-charge.(Structural frame work including M.S. plate to be provided separately. Rectangular area of the sheet only shall be measured for payment).

16.58.1 Overhead informatory road signage

Code	Description	Unit	Quantity	Rate	Amount
2704 2302	Details of cost for boards area 3.00x1.20 =3.60 sqm MATERIAL Aluminium Strip 40 mm wide and 2 mm thick Add 5% wastage = 1.01 kg Total = 20.16 + 1.01 = 21.17 kg. Carriage of G.I. sheet and accessories high intensity sheet for written matter. Taking 40% 3.60x40% = 1.44 sqm. Total = 3.60 + 1.44 = 5.04 sqm.	kilogram tonne	21.17 0.02117	240.00 145.72	5080.80 3.08
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
8690	High intensity retro - reflective sheet	sqm	5.04	1443.00	7272.72
0588	Chromium plated Brass screws 25 mm	100 Nos	0.34	180.00	61.20
	for peripheries = 2x(300+120)/30=28 nos.				
	For vertical Rows = 2x (120/30-2)=4 nos.				
	Total= 28 + 4 = 32nos.				
	For wastage @ 5% =2 nos.				
	Total = 32 +2 = 34 nos.				
	Labour charges for drilling holes				
9999	Hire charges of drill machine and sundries	L.S.	52.00	2.12	110.24
9999	Hoisting board	L.S.	390.00	2.12	826.80
	Labour charges for manufacturing of				
	board including .				
9999	fixing retro reflective sheet	L.S.	564.20	2.12	1196.10
	Painting with epoxy paint on back side				
	of Aluminium sheet,				
13.52.1	Rate as per Item no. 13.52.1 of				
	SH: Finishing	sqm	3.60	201.70	726.12 A
	TOTAL				15277.07 W
	Add 1 % Water charges on "W-A"				145.51
	TOTAL				15422.58 X
	Add GST on "X-A" (multiplying factor 0.1405)				2064.85
	TOTAL				17487.43 Y
	Add 15% CPOH on "Y-A"				2514.20
	TOTAL				20001.63 Z
	Add Cess @ 1% on "Z-A"				192.76
	Cost of 3.60 sqm				20194.38
	Cost of 1 sqm.				5609.55
	Say				5609.55
	FOR DPA 30% LESS				**3926.685**

16.59 Providing Retro-reflective regulatory sign board of size 900 mm dia meter made out of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated lens type retro -reflective sheeting as approved by Engineer-in- charge. Letter, symbols, borders etc. will be as per IRC - 67 with required colour scheme on the boards and with the high intensity grade A. The aluminium sheet to be riveted to M.S. frame of angle iron of size 40x40x4 mm. The boards will be fixed to 1 No. 50x50 mm square post made of M.S. angle 50x50x4 mm, 4 m long welded to the frame with adequate anti-theft arrangement .Sheet work to be painted with two or more coats of synthetic enamel paint over an under coat (primer) and back side of aluminium sheet to be painted with two or more coats of epoxy paint including appropriate priming coat complete in all respects as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details cost for one board of 0.635 sqm Aluminium sheet 2mm thick = 0.635 sqm. Add 10% wastage = 0.06 sqm, total = 0.635 + 0.06 = 0.695 sqm. Say 0.70 sqm @ 5.6kg/sqm = 3.98 kg				
	MATERIAL				
2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	3.98	240.00	955.20
	High intensity retro reflective sheet = 0.70 sqm				
	high intensity sheet for lettering/ sing and border etc.				
	Taking 40% Area=0.28 sqm, total = 0.70 + 0.28 = 0.98 sqm.				
8690	High intensity retro - reflective sheet	sqm	0.98	1443.00	1414.14
	Angle iron 40x40x4mm = 4x0.60=2.40@ 2.4kg/ mtr = 5.76 kg				
	50x50x5 mm = 2x4m =8m @ 3kg/ mtr =24.00 kg				
	Total = 5.76 + 24.00 = 29.76 kg				
10.2	Rate as per item no 10.2 of SH : Steel work	kg	29.76	78.20	2327.23 A
	LABOUR				
0128	Mate	day	0.01	714.00	7.14
0114	Beldar	day	0.25	645.00	161.25
9999	Cost of material for drilling holes, nut bolts & rivets, facrication etc.	L.S.	70.23	2.12	148.89
	(e) Painting with synthetic enamel paint				
	1x2.40.12=0.29 sqm				
	1x4.00x0.12=0.80 sqm,				
	Total = 0.29 + 0.80 = 1.09 sqm				
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.09	131.45	143.28 A
13.52.1	Painting with epoxy paint on back side of aluminium sheet, Rate as per Item no. 13.52.1 of SH: Finishing	sqm	0.635	201.70	128.08 A
9999	Sundries & hole fast etc,	L.S.	31.20	2.12	66.14
	TOTAL				5351.35 W
	Add 1 % Water charges on "W-A"				27.53
	TOTAL				5378.88 X
	Add GST on "X-A" (multiplying factor 0.1405)				390.63
	TOTAL				5769.51 Y
	Add 15% CPOH on "Y-A"				475.64
	TOTAL				6245.15 Z
	Add Cess @ 1% on "Z-A"				36.47
	Cost for 1 board				6281.62
	Say				6281.60
	FOR DPA 30% LESS				**4397.12**

16.60 Providing and applying 2.5 mm thick road marking strips (retro- reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 200 sqm (Area covered on one day):-				
	MATERIAL				
	Thermoplastic paint screeded in paint form for 2.5 mm thick road making stripe including glass beads etc. as per specifications				
	200 sqm @ 5kg/ sqm = 1000 kg				

	Wastage @ 5% = 50kg				
	Total = 1050 kg				
8687	Thermoplastic paint	kg	1050.00	66.00	69300.00
	Glass beads (B-class) to be sprayed over the paint stripe @ 250 gms. Per sqm = 100x0.25=25 kg				
8688	Glass beads	kg	50.00	72.00	3600.00
	MACHINERY				
0033	Paint applicator.	day	1.00	800.00	800.00
0083	Hire charges of TATA 407 or equivalent for local shifting.	day	1.00	1400.00	1400.00
1241	Commercial LPG in cylinder.	kg	142.00	84.00	11928.00
	LABOUR				
0157	Operator (Pile/ Special machine)	day	1.00	784.00	784.00
0139	Skilled Beldar (for floor rubbing etc.)	day	4.00	714.00	2856.00
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				93248.00 W
	Add 1 % Water charges on “W”				932.48
	TOTAL				94180.48 X
	Add GST on “X” (multiplying factor 0.1405)				13232.36
	TOTAL				107412.84 Y
	Add 15% CPOH on “Y”				16111.93
	TOTAL				123524.76 Z
	Add Cess @ 1% on “Z”				1235.25
	Cost for 200 sqm				124760.01
	Cost per sqm				623.80
	Say				623.80
	FOR DPA 30% LESS				**436.66**

16.61 Providing, laying and making kerb channel 30 cm wide and 50 mm thick with cement concrete 1:3:6 (1 cement: 3 coarse sand:6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth etc. complete and as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	METERIAL				
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	1.00	650.00	650.00
2260	Carriage of Brick aggregate	cum	1.00	178.19	178.19
6501	Sand zone V (Jamuna)	cum	0.08	1300.00	104.00
2335	Carriage of Jamuna sand	cum	0.08	163.93	13.11
	Labour for spreading, ramming and consolidation.				
0114	Beldar	day	0.35	645.00	225.75
0115	Coolie	day	0.26	645.00	167.70
0101	Bhisti	day	0.18	714.00	128.52
	Cement concrete-1:3:6				
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work	cum	0.50	6670.25	3335.13 A
	TOTAL				4802.40 W
	Add 1 % Water charges on "W-A"				14.67
	TOTAL				4817.07 X
	Add GST on "X-A" (multiplying factor 0.1405)				208.21
	TOTAL				5025.29 Y
	Add 15% CPOH on "Y-A"				253.52
	TOTAL				5278.81 Z
	Add Cess @ 1% on "Z-A"				19.44
	Cost for 10 sqm.				5298.25
	Cost for 1 sqm.				529.82
	Say				529.80
	FOR DPA 30% LESS				**370.86**

16.64 Providing and laying 75 mm thick compacted bed of dry brick aggregate of 40 mm thick nominal size including spreading, well ramming, consolidating and grouting with jamuna sand, including finishing smooth etc. complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
0287	Details of cost for 10 sqm. METERIAL	cum cum	1.00	650.00	650.00
2260	Brick Aggregate (Single size) : 40 mm nominal size	cum cum	1.00	178.19	178.19
6501	Carriage of Brick aggregate Sand zone V (Jamuna)	day day	0.08	1300.00	104.00
2335	Carriage of Jamuna sand		0.08	163.93	13.11
0114	Labour for spreading, ramming and consolidation.		0.35	645.00	225.75
0115	Beldar Coolie		0.26	645.00	167.70
Code	Description	Unit	Quantity	Rate	Amount
0101	Bhisti	day	0.18	714.00	128.52
	TOTAL				1467.27 W
	Add 1 % Water charges on “W”				14.67
	TOTAL				1481.95 X
	Add GST on “X” (multiplying factor 0.1405)				208.21
	TOTAL				1690.16 Y
	Add 15% CPOH on “Y”				253.52
	TOTAL				1943.68 Z
	Add Cess @ 1% on “Z”				19.44
	Cost for 10 sqm.				1963.12
	Cost for 1 sqm.				196.31
	Say				196.30
	FOR DPA 30% LESS				**137.41**

16.63 Providing and fixing post delineators made of ABS round body fitted with 2 nos 100 mm dia high reflective reflectors and mounted on MS pipe of 65 mm dia duly powder coated anti-rust and anti theft steel to be installed as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8685	Delineator	each	1.00	336.00	336.00
9999	Fixing materials.	L.S.	78.00	2.12	165.36
9999	Fixing charges.	L.S.	39.00	2.12	82.68
	TOTAL				584.04 W
	Add 1 % Water charges on "W"				5.84
	TOTAL				589.88 X
	Add GST on "X" (multiplying factor 0.1405)				82.88
	TOTAL				672.76 Y
	Add 15% CPOH on "Y"				100.91
	TOTAL				773.67 Z
	Add Cess @ 1% on "Z"				7.74
	Cost of 1 no.				781.41
	Say				781.40
	FOR DPA 30% LESS				**546.98**

16.64 Excavating holes upto 0.10 cum, including getting out the excavated soil, then returning the soil as deported in layers not exceeding 20 cm in depth, including consolidating and deposited layer by ramming watering etc., disposing of surplus excavated soil as directed with in a lead of 50 mm and lift upto 1.5 m.

16.64.1 All kind of soil

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 holes- Earth work 30x0.10 = 3.0 cum.				
2.8.1	Extra labour for filling and ramming Rate as per item no. 2.8.1 of SH: Earth work	cum	3.00	286.85	860.55 A
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				889.21 W
	Add 1 % Water charges on "W-A"				0.29
	TOTAL				889.50 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.07

	TOTAL				893.57 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				898.52 Z
	Add Cess @ 1% on "Z-A"				0.38
	Cost of 30 holes				898.90
	Cost of 1 hole				29.96
	Say				29.95
	FOR DPA 30% LESS				**20.965**

16.65 Providing and fixing at or near ground level factory made RCC pavement slab of M-30 grade of size 450x450x50 mm, including reinforcement with 6 mm dia M.S. bars 4 nos on each side, including setting in position in footpath to the required level and line over a bed of 20 mm average thick cement mortar 1:5 (1 cement : 5 coarse sand), having joint thickness not more than 5mm except on curve, including filling of joints with same cement mortar and making grooves etc. complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm				
	MATERIAL				
8694	Precast pavement slab 450 x 450 x				
	50 mm (M - 30)	each	48.00	145.00	6960.00
9977	Carriage of slab.	L.S.	52.00	2.12	110.24
	20mm (bed and joints) CM.				
	1:5 (1 cement: 5 coarse sand)				
3.10	Rate as per Item Number 3.10 of				
	SH: Mortars	cum	0.25	3995.00	998.75
	LABOUR				
0155	Mason (average)	day	1.10	749.00	823.90
0100	Bandhani	day	1.10	714.00	785.40
0114	Beldar	day	0.55	645.00	354.75
0101	Bhisti	day	0.27	714.00	192.78
9999	Sundries	L.S.	10.79	2.12	22.87
	TOTAL				10248.69 W
	Add 1 % Water charges on "W"				102.49
	TOTAL				10351.18 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1454.34
	TOTAL				11805.52 Y
	Add 15% CPOH on "Y"				1770.83
	TOTAL				13576.35 Z
	Add Cess @ 1% on "Z"				135.76
	Cost for 10 sqm.				13712.11
	Cost for 1 sqm				1371.21
	Say				1371.20
	FOR DPA 30% LESS				**959.84**

16.66 Providing and laying 60mm thick faciory made cement concrete interlocking paver block of M - 30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10.00 sqm				
	MATERIAL				
8689	Interlocking C.C. paver block				
	(60 mm thick, M-30)	sqm	10.00	440.00	4400.00
	Bedding layer - 50mm thick				
0982	Coarse sand (zone III)	cum	0.50	1500.00	750.00
	=10x0.050=0.50 cum				
2203	Carriage of Coarse sand	cum	0.50	163.93	81.97
0983	Fine sand (zone IV)	cum	0.15	900.00	135.00
2203	Carriage of fine sand	cum	0.15	163.93	24.59
	Laying charges (Bassed on actual				
	observation)				
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00

0114	Beldar	day	1.00	645.00	645.00
0115	Coolie	day	0.50	645.00	322.50
	TOTAL				7108.05 W
	Add 1 % Water charges on "W"				71.08
	TOTAL				7179.14 X
	Add GST on "X" (multiplying factor 0.1405)				1008.67
	TOTAL				8187.80 Y
	Add 15% CPOH on "Y"				1228.17
	TOTAL				9415.97 Z
	Add Cess @ 1% on "Z"				94.16
	Cost for 10.00 sqm				9510.13
	Cost for 1.00 sqm.				951.01
	Say				951.00
	FOR DPA 30% LESS				**665.7**

16.67 Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost 100 metre i.e. 100x0.375x0.20=7.50 cum. No. of kerb stones = 100/0.405=247 Nos Precast C.C. Kerb stone M - 25 = 247x0.40x0.375x0.20=7.41 cum				
	METERIAL				
8686	Precast C.C. Kerb stone M - 25	cum	7.41	5600.00	41496.00
	Mortar 1:3 for fixing joints = 246x1x[(0.115+0.20)/2] x 0.375x0.005 = 0.073 cum.				
	Cement mortar 1:3 (1 cement : 3 coarse sand)				
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.073	5024.15	366.76
	Labour for fixing of kerb stones				
0123	Mason (brick layer) 1st class	day	2.50	784.00	1960.00
0124	Mason (brick layer) 2nd class	day	2.50	714.00	1785.00
0114	Beldar	day	2.50	645.00	1612.50
0115	Coolie	day	1.65	645.00	1064.25
	TOTAL				48284.51 W
	Add 1 % Water charges on "W"				482.85
	TOTAL				48767.36 X
	Add GST on "X" (multiplying factor 0.1405)				6851.81
	TOTAL				55619.17 Y
	Add 15% CPOH on "Y"				8342.88
	TOTAL				63962.05 Z
	Add Cess @ 1% on "Z"				639.62
	Cost of 7.50 cum				64601.67
	cost for 1 cum.				8613.56
	Say				8613.55
	FOR DPA 30% LESS				**6029.485**

16.68 Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.

16.68.1 Made of G.I. wire of dia 4 mm

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 10 sqm. MATERIAL				
	G.I. chain link 50x50 mm mesh				
8695	= 10.00 sqm.		10.50	300.00	3150.00
9977	Wastage @ 5% = 0.50 sqm. Total = 10.50 sqm.	sqm L.S.	156.00	2.12	330.72
0103	Chain link fabric fencing mesh of size 50x50 mm	day day	2.14	714.00	1527.96
0114	made of G.I. wire of dia 4 mm Carriage.		1.62	645.00	1044.90
	LABOUR				
	Blacksmith 2nd class Beldar				

Code	Description	Unit	Quantity	Rate	Amount
9999	Sundries including G.I. wire, nuts and				
	bolts and warshers.	L.S.	174.75	2.12	370.47
	TOTAL				6424.05 W
	Add 1 % Water charges on "W"				64.24
	TOTAL				6488.29 X
	Add GST on "X" (multiplying				
	factor 0.1405)				911.60
	TOTAL				7399.90 Y
	Add 15% CPOH on "Y"				1109.98
	TOTAL				8509.88 Z
	Add Cess @ 1% on "Z"				85.10
	Cost for 10 sqm.				8594.98
	Cost for 1 sqm.				859.50
	Say				859.50
	FOR DPA 30% LESS				**601.65**

16.68.2 Made of G.I. wire of dia. 4 mm, PVC coated to achieve outer dia not less than 5 mm in required colour and shade

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	MATERIAL				
	G.I. chain link 50x50 mm mesh				
	PVC coated = 10.00 sqm.				
	Wastage @ 5% = 0.50 sqm.				
	Total = 10.50 sqm.				
8696	Chain link fabric fencing mesh of size				
	50x50 mm made of G.I. wire of dia				
	4 mm, PVC coated to outer dia 5 mm	sqm	10.50	330.00	3465.00
9977	Carriage.	L.S.	156.00	2.12	330.72
	LABOUR				
0103	Blacksmith 2nd class	day	2.14	714.00	1527.96
0114	Beldar	day	1.62	645.00	1044.90
9999	Sundries including G.I. wire, nuts and				
	bolts and warshers.	L.S.	174.75	2.12	370.47
	TOTAL				6739.05 W
	Add 1 % Water charges on "W"				67.39
	TOTAL				6806.44 X
	Add GST on "X" (multiplying				
	factor 0.1405)				956.30
	TOTAL				7762.75 Y
	Add 15% CPOH on "Y"				1164.41
	TOTAL				8927.16 Z
	Add Cess @ 1% on "Z"				89.27
	Cost for 10 sqm.				9016.43
	Cost for 1 sqm.				901.64
	Say				901.65
	FOR DPA 30% LESS				**631.155**

16.69 Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia 3 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	MATERIAL				
	G.I. chain link 25x25 mm mesh				
	= 10.00 sqm.				
	Wastage @ 5% = 0.50 sqm.				

	Total = 10.50 sqm.				
8697	Chain link fabric fencing mesh of size 25x25 mm made of G.I. wire of dia 3 mm	sqm	10.50	380.00	3990.00
9977	Carriage.	L.S.	156.00	2.12	330.72
	LABOUR				
0103	Blacksmith 2nd class	day	2.14	714.00	1527.96
0114	Beldar	day	1.62	645.00	1044.90
9999	Sundries including G.I. wire, nuts and bolts and warshers.	L.S.	174.75	2.12	370.47
	TOTAL				7264.05 W
	Add 1 % Water charges on "W"				72.64
	TOTAL				7336.69 X
	Add GST on "X" (multiplying factor 0.1405)				1030.81
	TOTAL				8367.50 Y
	Add 15% CPOH on "Y"				1255.12
	TOTAL				9622.62 Z
	Add Cess @ 1% on "Z"				96.23
	Cost for 10 sqm.				9718.85
	Cost for 1 sqm.				971.88
	Say				971.90
	FOR DPA 30% LESS				**680.33**

16.70 Supplying and stacking of hard stone (for stone pitching) 22.5 cm thick at site.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 2.25 cum				
	MATERIAL				
	22.5 cm thick stone (Hard)				
1158	Stone for pitching 15 cm x 22.5 cm	cum	2.25	600.00	1350.00
	Carriage by mechanical transport i/c loading unloading and stacking				
2215	Carriage of Soling stone & masonary stone	cum	2.25	192.86	433.94
	TOTAL				1783.94 W
	Add 1 % Water charges on "W"				17.84
	TOTAL				1801.77 X
	Add GST on "X" (multiplying factor 0.1405)				253.15
	TOTAL				2054.92 Y
	Add 15% CPOH on "Y"				308.24
	TOTAL				2363.16 Z
	Add Cess @ 1% on "Z"				23.63
	Cost for 2.25 cum				2386.79
	Cost for one cum				1060.80
	Say				1060.80
	FOR DPA 30% LESS				**742.56**

16.71 Dry stone pitching 22.5 cm thick laid in courses and required profile with hammer dressed stones having no side less than 15 cm, with minimum depth of 20 cm including preparing the bedding surface etc. all complete. (Payment for Stone to be made separately).

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.08	784.00	846.72
0124	Mason (brick layer) 2nd class	day	1.08	714.00	771.12
0114	Beldar	day	2.15	645.00	1386.75
0115	Coolie	day	1.61	645.00	1038.45
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				4057.37 W
	Add 1 % Water charges on "W"				40.57
	TOTAL				4097.94 X
	Add GST on "X" (multiplying factor 0.1405)				575.76
	TOTAL				4673.71 Y

	Add 15% CPOH on "Y"				701.06
	TOTAL				5374.76 Z
	Add Cess @ 1% on "Z"				53.75
	Cost for 10 sqm				5428.51
	Cost for one sqm				542.85
	Say				542.85
	FOR DPA 30% LESS				**379.995**

16.72 75 mm thick back filling for pitching including supplying of required materials and consolidation etc. complete with :

16.72.1 Moorum

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm				
	MATERIAL				
0810	Moorum	cum	7.50	500.00	3750.00
	Carriage by mechanical transport i/c				
	loading unloading and stacking				
2265	Carriage of Moorum	cum	7.50	163.93	1229.48
	LABOUR				
0114	Beldar	day	1.64	645.00	1057.80
0101	Bhisti	day	0.13	714.00	92.82
	TOTAL				6130.10 W
	Add 1 % Water charges on "W"				61.30
	TOTAL				6191.40 X
	Add GST on "X" (multiplying				
	factor 0.1405)				869.89
	TOTAL				7061.29 Y
	Add 15% CPOH on "Y"				1059.19
	TOTAL				8120.48 Z
	Add Cess @ 1% on "Z"				81.20
	Cost for 100 sqm				8201.68
	Cost per sqm				82.02
	Say				82.00
	FOR DPA 30% LESS				**57.4**

16.72.2 Stone aggregate 20 mm nominal size

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 100 sqm				
	MATERIAL				
0295	Stone Aggregate (Single size) :				
	20 mm nominal size	cum	7.50	1400.00	10500.00
	100sqm x7.50cm= 7.50 cum				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	7.50	163.93	1229.48
	LABOUR				
0114	Beldar	day	2.05	645.00	1322.25
0101	Bhisti	day	0.13	714.00	92.82
	TOTAL				13144.55 W
	Add 1 % Water charges on "W"				131.45
	TOTAL				13275.99 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1865.28
	TOTAL				15141.27 Y
	Add 15% CPOH on "Y"				2271.19
	TOTAL				17412.46 Z
	Add Cess @ 1% on "Z"				174.12
	Cost for 100 sqm				17586.58
	Cost per sqm				175.87
	Say				175.85
	FOR DPA 30% LESS				**123.095**

16.72.3 Stone aggregate 40 mm nominal size

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 100 sqm				
	MATERIAL				
0293	Stone Aggregate (Single size) :				
	40 mm nominal size	cum	7.50	1300.00	9750.00

	100sqm x7.50cm= 7.50 cum				
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	7.50	178.19	1336.43
	LABOUR				
0114	Beldar	day	2.05	645.00	1322.25
0101	Bhisti	day	0.13	714.00	92.82
	TOTAL				12501.50 W
	Add 1 % Water charges on "W"				125.01
	TOTAL				12626.51 X
	Add GST on "X" (multiplying factor 0.1405)				1774.02
	TOTAL				14400.53 Y
	Add 15% CPOH on "Y"				2160.08
	TOTAL				16560.61 Z
	Add Cess @ 1% on "Z"				165.61
	Cost for 100 sqm				16726.22
	Cost per sqm				167.26
	Say				167.25
	FOR DPA 30% LESS				**117.075**

16.73 Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in-charge. (The panel shuttering work shall be paid for separately).
(Note:- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 cum				
	MATERIAL				
	Ready mix concrete M 25 = 1.00 cum. i/c placing of concrete, vibrating, leveling etc.				
5.33.1.1	Rate as per Item No.5.33.1.1 of SH:RCC	cum	1.00	7997.30	7997.30 A
9999	Operational charges for vacuum dewatering system i/c screed vibration, placing of filter mat , top mat, vacuum process, floating , troweling, Brooming etc.	L.S.	57.20	2.12	121.26
9999	T& P charges i/c consumable power charges, loading , unloading and hire charges of equipments	L.S.	41.60	2.12	88.19
	TOTAL				8206.76 W
	Add 1 % Water charges on "W-A"				2.09
	TOTAL				8208.85 X
	Add GST on "X-A" (multiplying factor 0.1405)				29.72
	TOTAL				8238.57 Y
	Add 15% CPOH on "Y-A"				36.19
	TOTAL				8274.76 Z
	Add Cess @ 1% on "Z-A"				2.77
	Cost for 1 cum				8277.54
	Say				8277.55
	FOR DPA 30% LESS				**5794.285**

16.74 Deduct for using of M-20 grade concrete instead of M-25 grade concrete in C.C. pavement.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 cum.				
	Cement for M-25 mix = 0.410 t				
	Cement for M - 20 mix = 0.383 t				
	Difference = 0.027 t				
	METERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.027	5000.00	135.00
2209	Carriage of Cement	tonne	0.027	145.72	3.93
	Plasticizer for M- 25 mix = 2.050kg				

	Plasticizer for M- 20 mix = 1.915 kg Difference = 0.135 kg				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
7318	Plasticizer / super plasticizer	kilogram	0.135	29.00	3.92
	TOTAL				142.85 W
	Add 1 % Water charges on "W"				1.43
	TOTAL				144.28 X
	Add GST on "X" (multiplying factor 0.1405)				20.27
	TOTAL				164.55 Y
	Add 15% CPOH on "Y"				24.68
	TOTAL				189.23 Z
	Add Cess @ 1% on "Z"				1.89
	Cost for 1 cum.				191.12
	Say				191.10
	FOR DPA 30% LESS				**133.77**

16.75 Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material within all lifts and lead upto 1km (by mechanical means).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm				
	LABOUR				
0128	Mate	day	0.01	714.00	7.14
0114	Beldar	day	0.25	645.00	161.25
	MACHINERY				
0038	Tractor with ripper attachment.	day	0.01	1200.00	12.00
0014	Front end loader capacity 1.00 cum	day	0.025	6000.00	150.00
0017	Hire and running charges of tipper	day	0.02875	3750.00	107.81
	TOTAL				438.20 W
	Add 1 % Water charges on "W"				4.38
	TOTAL				442.58 X
	Add GST on "X" (multiplying factor 0.1405)				62.18
	TOTAL				504.77 Y
	Add 15% CPOH on "Y"				75.72
	TOTAL				580.48 Z
	Add Cess @ 1% on "Z"				5.80
	Cost for 100 sqm				586.29
	Cost for 1 sqm				5.86
	Say				5.85
	FOR DPA 30% LESS				**4.095**

16.76 Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.

16.76.1 With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 225 cum (450 tonnes)				
	MATERIAL				
	Close graded graunlar sub-base material as per Grading-I of specifications				
	53mm to 9.5mm @ 50% = 144 cum				
	9.5 mm to 2.36mm @ 20% = 57 cum				
	2.36mm below @ 30% = 86.40 cum				
0292	Stone Aggregate (Single size) : 50 mm nominal size	cum	72.00	1000.00	72000.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	72.00	1350.00	97200.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	72.00	178.19	12829.68
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	72.00	163.93	11802.96

1179	Crushed stone 2.36 mm to 12.5 mm size	cum	57.00	900.00	51300.00
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	57.00	163.93	9344.01
2903	Stone chippings/ screenings 4.75 mm				
	nominal size	cum	43.20	1400.00	60480.00
2904	Stone chippings/ screenings 150 micron				
	nominal size	cum	43.20	1400.00	60480.00
2203	Carriage of Coarse sand	cum	86.40	163.93	14163.55
	Machinery/ Hire charges:				
0059	Wet Mix Plant 60 TPH	hour	6.00	950.00	5700.00
	@75 tonne capacity				
0070	Generator 100 KVA/125 KVA	hour	6.00	300.00	1800.00
0057	Water Tanker 5 to 6 KL capacity	hour	4.50	200.00	900.00
	5 km lead with one trip per hour				
0052	Front end loader 1 cum bucket capacity				
	(incl POL)	hour	6.00	1300.00	7800.00
	Tipper 10 tonne capacity(taking lead				
	= 10 Km) =450x10 =4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to				
	cover cost of loading and unloading				1485.00
0050	Motor Grader 3.35 metre blade	hour	6.00	2400.00	14400.00
0054	Vibratory roller 8 to 10 tonne	hour	6.00	600.00	3600.00
	LABOUR				
0128	Mate	day	0.40	714.00	285.60
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	714.00	1428.00
0114	Beldar	day	8.00	645.00	5160.00
	TOTAL				447008.80 W
	Add 1 % Water charges on "W"				4470.09
	TOTAL				451478.89 X
	Add GST on "X" (multiplying				
	factor 0.1405)				63432.78
	TOTAL				514911.67 Y
	Add 15% CPOH on "Y"				77236.75
	TOTAL				592148.43 Z
	Add Cess @ 1% on "Z"				5921.48
	Cost for 225 cum(450 Tonne)				598069.91
	Cost per cum.				2658.09
	Say				2658.10
	FOR DPA 30% LESS				**1860.67**

16.76.2 With material conforming to Grade-II (size range 53 mm to 0.075 mm) having CBR Value-25

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 225 cum (450 tonnes)				
	MATERIAL				
	Close graded graunlar sub-base material				
	as per Grading-I of specifications				
	26.5mm to 9.5mm @ 35% = 100.80 cum				
	9.5 mm to 2.36mm @ 25% = 72 cum				
	2.36mm below @ 40% = 115.20 cum				
0294	Stone Aggregate (Single size) : 25 mm				
	nominal size	cum	50.40	1350.00	68040.00
0297	Stone Aggregate (Single size) : 10 mm				
	nominal size	cum	50.40	1350.00	68040.00
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	100.80	163.93	16524.14
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	72.00	900.00	64800.00
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	72.00	163.93	11802.96
2903	Stone chippings/ screenings 4.75 mm				
	nominal size	cum	57.60	1400.00	80640.00
2904	Stone chippings/ screenings 150 micron				
	nominal size	cum	57.60	1400.00	80640.00
2203	Carriage of Coarse sand	cum	115.20	163.93	18884.74

	Machinery/ Hire charges:				
0059	Wet Mix Plant 60 TPH	hour	6.00	950.00	5700.00
	@75 tonne capacity				
0070	Generator 100 KVA/125 KVA	hour	6.00	300.00	1800.00
0057	Water Tanker 5 to 6 KL capacity	hour	4.50	200.00	900.00
	5 km lead with one trip per hour				
0052	Front end loader 1 cum bucket capacity				
	(incl POL)	hour	6.00	1300.00	7800.00
	Tipper 10 tonne capacity(taking lead=				
	10 Km) =450x10 =4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to				
	cover cost of loading and unloading				1485.00
0050	Motor Grader 3.35 metre blade	hour	6.00	2400.00	14400.00
0054	Vibratory roller 8 to 10 tonne	hour	6.00	600.00	3600.00
	LABOUR				
0128	Mate	day	0.40	714.00	285.60
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	714.00	1428.00
0114	Beldar	day	8.00	645.00	5160.00
	TOTAL				466780.44 W
	Add 1 % Water charges on "W"				4667.80
	TOTAL				471448.24 X
	Add GST on "X" (multiplying				
	factor 0.1405)				66238.48
	TOTAL				537686.72 Y
	Add 15% CPOH on "Y"				80653.01
	TOTAL				618339.73 Z
	Add Cess @ 1% on "Z"				6183.40
	Cost for 225 cum(450 Tonne)				624523.13
	Cost per cum.				2775.66
	Say				2775.65
	FOR DPA 30% LESS				**1942.955**

16.76.3 With material conforming to Grade-III (size range 26.5 mm to 0.075 mm) having CBR Value-20

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 225 cum (450 tonnes)				
	MATERIAL				
	Close graded graunlar sub-base material				
	as per Grading-III of specifications				
	9.5mm to 4.75mm @ 35% = 100.80 cum				
	4.75 mm to 2.36mm @ 12.5%				
	= 36.00 cum				
	2.36mm below @ 52.5% = 151.20 cum				
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	100.80	900.00	90720.00
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	100.80	163.93	16524.14
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	36.00	900.00	32400.00
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	36.00	163.93	5901.48
2903	Stone chippings/ screenings 4.75 mm				
	nominal size	cum	75.60	1400.00	105840.00
2904	Stone chippings/ screenings 150 micron				
	nominal size	cum	75.60	1400.00	105840.00
2203	Carriage of Coarse sand	cum	151.20	163.93	24786.22
	Machinery/ Hire charges:				
0059	Wet Mix Plant 60 TPH	hour	6.00	950.00	5700.00
	@75 tonne capacity				
0070	Generator 100 KVA/125 KVA	hour	6.00	300.00	1800.00
0057	Water Tanker 5 to 6 KL capacity	hour	4.50	200.00	900.00
	5 km lead with one trip per hour				
0052	Front end loader 1 cum bucket capacity				
	(incl POL)	hour	6.00	1300.00	7800.00
	Tipper 10 tonne capacity(taking lead				
	= 10Km) =450x10 =4500 t.Km				

0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0050	Motor Grader 3.35 metre blade	hour	6.00	2400.00	14400.00
0054	Vibratory roller 8 to 10 tonne	hour	6.00	600.00	3600.00
	LABOUR				
0128	Mate	day	0.40	714.00	285.60
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	714.00	1428.00
0114	Beldar	day	8.00	645.00	5160.00
	TOTAL				439420.44 W
	Add 1 % Water charges on "W"				4394.20
	TOTAL				443814.64 X
	Add GST on "X" (multiplying factor 0.1405)				62355.96
	TOTAL				506170.60 Y
	Add 15% CPOH on "Y"				75925.59
	TOTAL				582096.19 Z
	Add Cess @ 1% on "Z"				5820.96
	Cost for 225 cum(450 Tonne)				587917.15
	Cost per cum.				2612.97
	Say				2612.95
	FOR DPA 30% LESS				**1829.065**

16.77 Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub-base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achievethe desired density, complete as per specifications and directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 225 cum (495 tonne)				
	MATERIAL				
	Conforming to table ……				
	45mm to22.4mm @ 30% = 89.10 cum				
	Qty for 0292,0293,0294,0295 codes = 89.10 / 4 = 22.275 cum				
	Qty for 2206, 2202 codes = 89.10 /2 = 44.55 cum				
	22.4 mm to 2.36mm @ 40% = 118.80 cum				
	Qty for 0294,0295 codes = 118.80 /4 = 29.70 cum				
	Qty for 1179 code = 118.80 /2 = 59.40 cum				
	2.36 mm to 75 microon @ 30% = 89.10 cum				
	Qty for 2903, 2904 codes = 89.10 / 2 = 44.55 cum				
0292	Stone Aggregate (Single size) : 50 mm nominal size	cum	22.275	1000.00	22275.00
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	22.275	1300.00	28957.50
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	22.275	1350.00	30071.25
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	22.275	1400.00	31185.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	44.55	178.19	7938.36
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	44.55	163.93	7303.08
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	29.70	1350.00	40095.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	29.70	1400.00	41580.00
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	59.40	900.00	53460.00

2202	Carriage of Stone aggregate below 40 mm nominal size	cum	118.80	163.93	19474.88
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	44.55	1400.00	62370.00
2904	Stone chippings/ screenings 150 micron nominal size	cum	44.55	1400.00	62370.00
2203	Carriage of Coarse sand	cum	89.10	163.93	14606.16
	Machinery/ Hire charges:				
0059	Wet Mix Plant 60 TPH @75 tonne capacity	hour	6.60	950.00	6270.00
0070	Generator 100 KVA/125 KVA	hour	6.00	300.00	1800.00
0057	Water Tanker 5 to 6 KL capacity 5 km lead with one trip per hour	hour	3.00	200.00	600.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Tipper 10 tonne capacity(taking lead = 10 Km) =495x10 =4950 tonne km				
0053	Tipper -5 Cum	tonne km	4950.00	3.30	16335.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1633.50
0065	Paver finisher Mechanical 100 TPH	hour	6.00	800.00	4800.00
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	LABOUR				
0128	Mate	day	0.48	714.00	342.72
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	714.00	1428.00
0114	Beldar	day	10.00	645.00	6450.00
	TOTAL				471485.46 W
	Add 1 % Water charges on "W"				4714.85
	TOTAL				476200.32 X
	Add GST on "X" (multiplying factor 0.1405)				66906.14
	TOTAL				543106.46 Y
	Add 15% CPOH on "Y"				81465.97
	TOTAL				624572.43 Z
	Add Cess @ 1% on "Z"				6245.72
	Cost for 225 cum(450 Tonne)				630818.16
	Cost per cum.				2803.64
	Say				2803.65
	FOR DPA 30% LESS				**1962.555**

16.78 Construction of dry lean cement concrete sub base over a prepared sub-grade with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineer-in- charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 450 cum (990 tonne) MATERIAL Crushed stone coarse aggregate of 25mm & 12.5 mm nominal sizes graded as per specifications @ 0.90 cum/cum of concrete conforming to specification. = 405 cum Coarse Sand @0.45 m3 per cum of concrete = 203 cum Cement @150 Kg. per cum of concrete = 67.50 cum Qty for 0294,0296 codes = 405 / 2 = 202.50 cum				

Code	Description	Unit	Quantity	Rate	Amount
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	202.50	1350.00	273375.00
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	202.50	1350.00	273375.00
0982	Coarse sand (zone III)	cum	203.00	1500.00	304500.00

0367	Portland Cement (OPC-43 grade)	tonne	67.50	5000.00	337500.00
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	405.00	163.93	66391.65
2203	Carriage of Coarse sand	cum	203.00	163.93	33277.79
2209	Carriage of Cement	tonne	67.50	145.72	9836.10
	Machinery/ Hire charges:				
0052	Front end loader 1 cum bucket capacity				
	(incl POL)	hour	6.00	1300.00	7800.00
	@75 tonne capacity				
0066	Batching and Mixing Plant @ 75 cum				
	per hour	hour	6.00	2400.00	14400.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
	5 km lead with one trip per hour				
0065	Paver finisher Mechanical 100 TPH	hour	6.00	800.00	4800.00
0054	Vibratory roller 8 to 10 tonne	hour	8.00	600.00	4800.00
0057	Water Tanker 5 to 6 KL capacity	hour	8.00	200.00	1600.00
	Tipper 10 tonne capacity (Taken				
	10km average lead)				
	990x10=9900 tonne km				
0053	Tipper -5 Cum	tonne km	9900.00	3.30	32670.00
	Add 10 per cent of cost of carriage				
	to cover cost of loading and unloading				3267.00
	LABOUR				
0128	Mate	day	1.12	714.00	799.68
0139	Skilled Beldar (for floor rubbing etc.)	day	6.00	714.00	4284.00
0114	Beldar	day	22.00	645.00	14190.00
	TOTAL				1389266.22 W
	Add 1 % Water charges on "W"				13892.66
	TOTAL				1403158.88 X
	Add GST on "X" (multiplying				
	factor 0.1405)				197143.82
	TOTAL				1600302.71 Y
	Add 15% CPOH on "Y"				240045.41
	TOTAL				1840348.11 Z
	Add Cess @ 1% on "Z"				18403.48
	Cost for 450 cum(990 Tonne)				1858751.59
	Cost per cum.				4130.56
	Say				4130.55
	FOR DPA 30% LESS				**2891.385**

16.79 Providing and erecting 2.00 metre high temporary barricading at site; each panel of size 2.50mx2.00m made of 40x40x6mm angle iron or 50x50x3mm hollow MS tube posts/horizontal members/bracings covered with 1.63mm thick MS sheet. The sheet shall be fixed with 30x5mm MS flat by suitable welding/riveting. The panels shall be made so that gap of 50cm above the ground is available making overall height as 2.5m. MS channel ISLC 75 @ 5.70 kg/m, 50cm long shall be provided at the bottom having oval shaped holes of size 50x25mm at both ends with 50cm long MS angle 40x40x6mm bracing. Suitable arrangement shall be made to fix the barricading to avoid from overturning by providing 250mm long expansion fasteners at both ends. The work shall be executed as per drawing/ direction of Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in-Charge. The barricading provided shall be retained in position at site continuously i/c shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour materials, equipments and works required to execute the job. The barricading shall not be removed without prior approval of Engineer-in-Charge.
(Note :- One time payment shall be made for providing barricading from start of work till completion of work i/c shifting. The barricading provided shall remain to be the property of the contractor on completion of the work).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 2.5 metre				
	MATERIAL				
16.81X	Rate as per Sub Analysis No.16.81X	metre	2.50	46.05	115.13
16.81Y	Rate as per Sub Analysis No.16.81Y	metre	2.50	1452.40	3631.00

Code	Description	Unit	Quantity	Rate	Amount
13.50.3	Rate as per Item No.13.50.3 of				
	SH: FINISHING	sqm	11.00	55.50	610.50 A
13.61.1	Rate as per Item No.13.61.1 of				
	SH: FINISHING	sqm	11.00	131.45	1445.95 A
	TOTAL				5802.58 W
	Add 1 % Water charges on "W-A"				37.46
	TOTAL				5840.04 X
	Add GST on "X-A" (multiplying factor 0.1405)				531.59
	TOTAL				6371.63 Y
	Add 15% CPOH on "Y-A"				647.28
	TOTAL				7018.91 Z
	Add Cess @ 1% on "Z-A"				49.62
	Cost of 2.5 metre				7068.53
	Cost of 1 metre				2827.41
	Say				2827.40
	FOR DPA 30% LESS				**1979.18**
16.79X	**Sub analysis item for material component of Item No. 16.79**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
1013	Sub analysis item no.16.81X to be used in Item No. 16.81 Details of cost for 2.5 meter MATERIAL M.S. Sheet 1.63mm thick = 1x2.50x2.00 = 5.00 sqm @ 12.80 kg/sqm = 64.00 kg wastage @ 5%= 3.20 kg Total = 67.20 kg Mild steel sheets for tanks MS Angle - 40 x 40 x 6 mm Outframe=2x(2.50+2.00)=9.00 m Vertical extra = 2x0.300 = 0.60 m Horizontal = 1x2.50 =2.50 m	quintal	0.672	4850.00	3259.20
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Bracing = 2x3.20 = 6.40 m				
	Bracing at bottom = 2x0.50 = 1.00 m				
	Total = 19.50 m @ 3.50 kg/m				
	= 68.25 kg +				
	wastage @ 5% = 3.14 kg				
	Total = 71.66 kg				
1007	Structurals such as tees,angles channels and R.S. joists	quintal	0.717	4950.00	3549.15
	M.S. Channel = 2x0.50 =1.00 m @ 5.70 kg/m = 5.70 kg+				
	wastage @ 5% = 0.29 kg				
	Total = 5.99 kg				
1007	Structurals such as tees, angles channels and R.S. joists	quintal	0.0599	4950.00	296.51
	M.S. Flat 30x5 mm				
	Horizontal = 2x2.50 = 5.00 m				
	Vertical = 2x2.00 = 4.00 m				
	Total = 9.00 m @ 1.20 kg/m = 10.80 kg +				
	wastage @ 5% = 0.54 kg				
	Total = 11.34 kg				
1008	Flats upto 10 mm in thickness	quintal	0.1134	4850.00	549.99
2205	Carriage of Steel	tonne	0.156	145.72	22.73
	TOTAL				7677.58 P
	Add for maintenance @ 10% on P				767.76 Q
	Less for salvage value of material @ 50% on P				-3838.79
	TOTAL				4606.55 S
	Assuming that material will become unserviceable after using 40 times, cost of 2.5 metre using once = S/40				
	Cost of 2.5 meter				115.16
	Cost of 1 meter				46.07
	Say				46.05
	FOR DPA 30% LESS				**32.235**
16.79Y	**Sub analysis item for fabrication charges of Item No. 16.79**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**

	Sub analysis item no.16.81Y to be				
	used in Item No. 16.81				
	Details of cost for 2.5 metre				
	MATERIAL				
1215	Welding by electric plant	cm	165.00	2.00	330.00
	Cutting, assembling and erection charges				
	LABOUR				
0102	Blacksmith 1st class	day	0.115	784.00	90.16
0103	Blacksmith 2nd class	day	0.115	714.00	82.11
0100	Bandhani	day	0.11	714.00	78.54
0114	Beldar	day	0.83	645.00	535.35
9999	Sundries	L.S.	12.10	2.12	25.65
	Labour for riveting / bolting / cutting etc.				
0116	Fitter (grade 1)	day	0.41	784.00	321.44
0103	Blacksmith 2nd class	day	0.54	714.00	385.56
0100	Bandhani	day	0.70	714.00	499.80
0114	Beldar	day	0.54	645.00	348.30
0139	Skilled Beldar (for floor rubbing etc.)	day	0.81	714.00	578.34
9999	Sundries	L.S.	12.10	2.12	25.65
	TOTAL				3300.90
	Shifting including transportation,				
	re-erection etc. @ 10%				330.09
	TOTAL Cost of 2.5 meter				3630.99
	Cost of 1 meter				1452.40
	Say				1452.40
	FOR DPA 30% LESS				**1016.68**

16.80 Taking out existing kerb stones of all types from footpath/ central verge, including removal of mortar etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 meter				
	LABOUR				
0114	Beldar	day	0.75	645.00	483.75
0115	Coolie	day	3.00	645.00	1935.00
9999	Sundries	L.S.	2.00	2.12	4.24
	TOTAL				2422.99 W
	Add 1 % Water charges on "W"				24.23
	TOTAL				2447.22 X
	Add GST on "X" (multiplying factor 0.1405)				343.83
	TOTAL				2791.05 Y
	Add 15% CPOH on "Y"				418.66
	TOTAL				3209.71 Z
	Add Cess @ 1% on "Z"				32.10
	Cost of 100 meter				3241.81
	Cost of 1 meter				32.42
	Say				32.40
	FOR DPA 30% LESS				**22.68**

16.81 Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	LABOUR				
0114	Beldar	day	0.25	645.00	161.25
0115	Coolie	day	1.00	645.00	645.00
9999	Sundries	L.S.	2.70	2.12	5.72
	TOTAL				811.97 W
	Add 1 % Water charges on "W"				8.12
	TOTAL				820.09 X
	Add GST on "X" (multiplying factor 0.1405)				115.22
	TOTAL				935.32 Y

	Add 15% CPOH on "Y"				140.30
	TOTAL				1075.61 Z
	Add Cess @ 1% on "Z"				10.76
	Cost of 10 sqm.				1086.37
	Cost of 1 sqm				108.64
	Say				108.65
	FOR DPA 30% LESS				**76.055**

16.82 Laying old cement cocrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	MATERIAL				
	Bedding layer 50mm thick				
0982	Coarse sand (zone III)	cum	0.50	1500.00	750.00
	Qty = 10 x 0.05 = 0.50 cum				
2203	Carriage of Coarse sand	cum	0.50	163.93	81.97
0983	Fine sand (zone IV)	cum	0.15	900.00	135.00
2261	Carriage of Fine sand (1 part badarpur				
	sand : 2 parts jamuna sand)	cum	0.15	163.93	24.59
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	1.00	645.00	645.00
0115	Coolie	day	0.50	645.00	322.50
	TOTAL				2708.05 W
	Add 1 % Water charges on "W"				27.08
	TOTAL				2735.14 X
	Add GST on "X" (multiplying				
	factor 0.1405)				384.29
	TOTAL				3119.42 Y
	Add 15% CPOH on "Y"				467.91
	TOTAL				3587.33 Z
	Add Cess @ 1% on "Z"				35.87
	Cost of 10 sqm.				3623.21
	Cost of 1 sqm				362.32
	Say				362.30
	FOR DPA 30% LESS				**253.61**

16.83 Laying at or near ground level old kerb stones of all types in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement : 3 coarse sand), including making joints with or without grooves (thickness of joints, except at sharp curve, shall not be more than 5 mm), including making drainage opening wherever required etc. complete as per direction of Engineer- in-charge. (Length of finished kerb edging shall be measured for payment). (Old kerb stones shall be supplied by the department free of cost)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 meter. MATERIAL Number of kerb stones = 100 / 0.405 = 247 Nos. Qty. = 247 x 0.40 x 0.375 x 0.20 = 7.41cum No. of joints = 247 - 1 = 246 Nos. Cement Mortar 1:3 for fixing joints = 246 x[(0.115 + 0.20)/2 x 0.375 x 0.005] = 0.073 cum				
3.8	Rate as per Item No.3.8 of				
	SH:MORTARS	cum	0.073	5024.15	366.76
	LABOUR				
0123	Mason (brick layer) 1st class	day	2.50	784.00	1960.00
0124	Mason (brick layer) 2nd class	day	2.50	714.00	1785.00
0114	Beldar	day	2.50	645.00	1612.50
0115	Coolie	day	1.65	645.00	1064.25
	TOTAL				6788.51 W
	Add 1 % Water charges on "W"				67.89
	TOTAL				6856.40 X

	Add GST on "X" (multiplying factor 0.1405)				963.32
	TOTAL				7819.72 Y
	Add 15% CPOH on "Y"				1172.96
	TOTAL				8992.68 Z
	Add Cess @ 1% on "Z"				89.93
	Cost of 100 meter.				9082.61
	Cost of 1 meter.				90.83
	Say				90.85
	FOR DPA 30% LESS				**63.595**

16.84 Providing and laying gang saw cut 18 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.

16.84.1 With granite stone of area less than 0.50 sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 0.5sqm.				
	Mirror polished granite 0.5 sqm.				
	Waste @5% = 0.025 +0.5 = 0.525 sqm.				
7295	Granite of any colour, 18 mm thick				
	(slab area upto 0.50 sqm)	sqm	0.525	1800.00	945.00
3.9	Rate as per Item No.3.9 of				
	SH: MORTARS	cum	0.012	4355.20	52.26
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.56	784.00	439.04
0114	Beldar	day	0.05	645.00	32.25
0115	Coolie	day	0.05	645.00	32.25
9999	Sundries	L.S.	17.60	2.12	37.31
	TOTAL				1538.11 W
	Add 1 % Water charges on “W”				15.38
	TOTAL				1553.50 X
	Add GST on “X” (multiplying factor 0.1405)				218.27
	TOTAL				1771.76 Y
	Add 15% CPOH on “Y”				265.76
	TOTAL				2037.53 Z
	Add Cess @ 1% on “Z”				20.38
	Cost of 0.5 sqm				2057.90
	Cost per sqm.				4115.80
	Say				4115.80
	FOR DPA 30% LESS				**2881.06**

16.85 Providing and laying gang saw cut 30 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer- in-Charge.

16.85.1 With granite stone of colour black, cherry/ruby red of area less than 0.50 sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 0.50 sqm				
	MATERIAL				
	Mirror polished granite 0.50 sqm +				
	Waste @5% total = 0.025. Total =				
	0.525 sqm				
7296	Granite stone slab of colour Black,				
	Cherry/Ruby Red 30mm thick (slab				
	area less than 0.5 sqm)	sqm	0.53	1900.00	997.50
3.9	Rate as per Item No.3.9 of				
	SH: MORTARS	cum	0.012	4355.20	52.26
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.56	784.00	439.04
0114	Beldar	day	0.05	645.00	32.25
0115	Coolie	day	0.05	645.00	32.25

9999	Sundries	L.S.	17.60	2.12	37.31
	TOTAL				1590.61 W
	Add 1 % Water charges on "W"				15.91
	TOTAL				1606.52 X
	Add GST on "X" (multiplying factor 0.1405)				225.72
	TOTAL				1832.24 Y
	Add 15% CPOH on "Y"				274.84
	TOTAL				2107.07 Z
	Add Cess @ 1% on "Z"				21.07
	Cost of 0.5 sqm				2128.14
	Cost of 1 sqm				4256.29
	Say				4256.30
	FOR DPA 30% LESS				**2979.41**

16.85.2 With granite stone of all colour except black, cherry/ruby red of area less than 0.50 sqm.

Code	Description	Unit	Quantity	Rate	Amount
7300 3.9	Details of cost for 0.50 sqm MATERIAL Mirror polished granite 0.50 sqm + Waste @5% total = 0.025. Total = 0.525 sqm Granite stone slab of all colour except Black, Cherry/Ruby Red 30mm thick (slab area less than 0.5 sqm) Rate as per Item No.3.9 of SH: MORTARS	sqm cum	0.53 0.012	2100.00 4355.20	1102.50 52.26
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.56	784.00	439.04
0114	Beldar	day	0.05	645.00	32.25
0115	Coolie	day	0.05	645.00	32.25
9999	Sundries	L.S.	17.60	2.12	37.31
	TOTAL				1695.61 W
	Add 1 % Water charges on "W"				16.96
	TOTAL				1712.57 X
	Add GST on "X" (multiplying factor 0.1405)				240.62
	TOTAL				1953.19 Y
	Add 15% CPOH on "Y"				292.98
	TOTAL				2246.16 Z
	Add Cess @ 1% on "Z"				22.46
	Cost of 0.5 sqm				2268.63
	Cost of 1 sqm				4537.25
	Say				4537.25
	FOR DPA 30% LESS				**3176.075**

16.86 Providing and laying matt finished vitrified tile of size 100x100x16mm having water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in out door floors such as footpath, court yard multi models etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 sqm.				
	MATERIAL				
	Matt finished vitrified tile 100x100 x16mm				
7895	Matt finished vitrified tile 100x100 x16mm	sqm	1.00	910.00	910.00
9977	Carriage	L.S.	6.24	2.12	13.23
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.024	4355.20	104.52
9999	Sundries	L.S.	3.64	2.12	7.72
0367	Portland Cement (OPC-43 grade)	tonne	0.0033	5000.00	16.50
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.20	784.00	156.80
0115	Coolie	day	0.20	645.00	129.00
9999	Sundries	L.S.	26.91	2.12	57.05
	TOTAL				1394.82 W

	Add 1 % Water charges on "W"				13.95
	TOTAL				1408.77 X
	Add GST on "X" (multiplying factor 0.1405)				197.93
	TOTAL				1606.70 Y
	Add 15% CPOH on "Y"				241.00
	TOTAL				1847.70 Z
	Add Cess @ 1% on "Z"				18.48
	Cost per sqm.				1866.18
	Say				1866.20
	FOR DPA 30% LESS				**1306.34**

16.86 Providing and laying matt finished vitrified tile of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 sqm.				
	MATERIAL				
	Tile 300x300 x9.8mm = 1.00 sqm.				
7896	Vitrified tile	sqm	1.00	450.00	450.00
9977	Carriage	L.S.	6.24	2.12	13.23
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.024	4355.20	104.52
9999	Sundries	L.S.	3.64	2.12	7.72
0367	Portland Cement (OPC-43 grade)	tonne	0.0033	5000.00	16.50
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.20	784.00	156.80
0115	Coolie	day	0.20	645.00	129.00
9999	Sundries	L.S.	26.91	2.12	57.05
	TOTAL				934.82 W
	Add 1 % Water charges on "W"				9.35
	TOTAL				944.17 X
	Add GST on "X" (multiplying factor 0.1405)				132.66
	TOTAL				1076.82 Y
	Add 15% CPOH on "Y"				161.52
	TOTAL				1238.35 Z
	Add Cess @ 1% on "Z"				12.38
	Rate per sqm.				1250.73
	Say				1250.75
	FOR DPA 30% LESS				**875.525**

16.88 Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS:15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
7893	Detail of cost for 1 sqm. MATERIAL:	sqm L.S.	1.00	800.00	800.00
9977	Tile 300x300 x9.8mm = 1.00 sqm. Tactile tile	cum L.S.	6.24	2.12	13.23
3.9	Carriage	tonne	0.024	4355.20	104.52
9999	Rate as per Item No.3.9 of SH: MORTARS	day	3.64	2.12	7.72
0367	Sundries		0.0033	5000.00	16.50
0123	Portland Cement (OPC-43 grade) LABOUR :		0.20	784.00	156.80
	Mason (brick layer) 1st class				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0115	Coolie	day	0.20	645.00	129.00
9999	Sundries	L.S.	26.91	2.12	57.05
	TOTAL				1284.82 W
	Add 1 % Water charges on "W"				12.85
	TOTAL				1297.67 X
	Add GST on "X" (multiplying factor 0.1405)				182.32
	TOTAL				1479.99 Y

	Add 15% CPOH on "Y"				222.00
	TOTAL				1701.99 Z
	Add Cess @ 1% on "Z"				17.02
	Cosr per sqm				1719.01
	Say				1719.00
	FOR DPA 30% LESS				**1203.3**

16.89 Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.

16.89.1 60mm thick cement concrete paver block of M-35 grade with approved colour, design & pattern.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	MATERIAL :				
7773	Coloured inter locking C.C. paver Block	sqm	10.00	425.00	4250.00
0982	Coarse sand (zone-III)	cum	0.50	1500.00	750.00
2203	Carriage of coarse sand	cum	0.50	163.93	81.97
0983	Fine sand (zone IV)	cum	0.11	900.00	99.00
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.11	163.93	18.03
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	1.00	645.00	645.00
0115	Coolie	day	0.50	645.00	322.50
9999	Sundries	L.S.	25.00	2.12	53.00
	TOTAL				6968.50 W
	Add 1 % Water charges on "W"				69.68
	TOTAL				7038.18 X
	Add GST on "X" (multiplying factor 0.1405)				988.86
	TOTAL				8027.05 Y
	Add 15% CPOH on "Y"				1204.06
	TOTAL				9231.10 Z
	Add Cess @ 1% on "Z"				92.31
	Cost of 10 Sqm				9323.41
	Cost of 1 Sqm				932.34
	Say				932.35
	FOR DPA 30% LESS				**652.645**

16.89.2 80 mm thick C.C. paver block of M-30 grade with approved color design and pattern.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10.00 sqm.				
	MATERIALS :				
8785	Interlocking C.C. paver block (80 mm thick, M-30)	sqm	10.00	485.00	4850.00
0982	Coarse sand (zone 111) (10 x 0.050 = 0.50 cum)	cum	0.50	1500.00	750.00
2203	Carriage of Coarse sand	cum	0.50	163.93	81.97
0983	Fine sand (zone IV)	cum	0.15	900.00	135.00
2261	Carriage of Fine sand	cum	0.15	163.93	24.59
	Labour for Laying				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	1.00	645.00	645.00
0115	Coolie	day	0.50	645.00	322.50
	TOTAL				7558.05 W
	Add 1 % Water charges on "W"				75.58
	TOTAL				7633.64 X
	Add GST on "X" (multiplying factor 0.1405)				1072.53

	TOTAL				8706.16 Y
	Add 15% CPOH on "Y"				1305.92
	TOTAL				10012.08 Z
	Add Cess @ 1% on "Z"				100.12
	Cost of 10 Sqm				10112.21
	Cost of 1 Sqm				1011.22
	Say				1011.20
	FOR DPA 30% LESS				**707.84**

16.90 Providing and fixing 10x10x7.50 cm Granite stone block hand cut and chisel dressed on top, for paving in floors, drains etc. laid over 20mm thick base mortar 1:4 (1 cement : 4 coarse sand) with joints 10mm wide filled with same mortar including ruled pointing etc. complete as per direction of engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10.00 sqm.				
	MATERIALS :				
	Stone size 10x10x7.50cm =1sqm				
7774	Stone size 10x10x7.50cm	each	827.00	9.00	7443.00
3.9	Rate as per Item No.3.9 of				
	SH: MORTARS	cum	0.434	4355.20	1890.16
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	100.00
	LABOUR :				
0124	Mason (brick layer) 2nd class	day	1.08	714.00	771.12
0114	Beldar	day	0.25	645.00	161.25
0115	Coolie	day	1.62	645.00	1044.90
0101	Bhisti	day	0.27	714.00	192.78
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
13.33.1	Rate as per Item No.13.33.1 of				
	SH: FINISHING	sqm	10.00	319.35	3193.50 A
	TOTAL				14796.71 W
	Add 1 % Water charges on "W-A"				116.03
	TOTAL				14912.74 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				1646.55
	TOTAL				16559.29 Y
	Add 15% CPOH on "Y-A"				2004.87
	TOTAL				18564.16 Z
	Add Cess @ 1% on "Z-A"				153.71
	Cost of 10 sqm.				18717.87
	Cost of 1 sqm.				1871.79
	Say				1871.80
	FOR DPA 30% LESS				**1310.26**

16.91 Providing and placing in position 100 mm thick factory made machine batched & machine mixed Precast RCC Rectangular Covers on drains of footpath of various sizes, of M-25 grade cement concrete for RCC work, including cost of centering, shuttering, reinforcement of 8 mm dia TMT bars of Fe 500 grade @ maximum 100mm c/c on both ways , neat cement punning on finished surface, properly encased on all edges with 1.6 mm thick , 100 mm wide MS sheet duly painted over priming coat , reinforcement to be welded at edges with MS sheet and providing 2 Nos. 12 mm dia bar for hooks etc i/c cost of cartage, all leads & lift, handling at site etc. all complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
5.33.1.1	Details of cost of 1 No of size 1.50 x 0.40 = 0.60 sqm MATERIALS : Precast RCC M-25	cum	0.06	7997.30	479.84 A
5.22.6	Rate as per Item No.5.33.1.1 of SH: REINFORCED CEMENT CONCRETE Reinforcement TMT	Kg	4.59	89.65	411.49 A
10.22	Rate as per Item No.5.22.6 of SH: REINFORCED CEMENT CONCRETE	cm	82.00	3.40	278.80 A
1013	Welding by gas plant/ Electric plant Rate as per	quintal	0.0477	4850.00	231.35
13.61.1	Item No.10.22 of SH: STEEL WORK	sqm	0.38	131.45	49.95 A
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
13.18	Rate as per Item No.13.18 of				
	SH: FINISHING	sqm	0.60	67.80	40.68 A
	TOTAL				1492.11 W
	Add 1 % Water charges on "W-A"				2.31

	TOTAL				1494.42 X
	Add GST on "X-A" (multiplying factor 0.1405)				32.83
	TOTAL				1527.25 Y
	Add 15% CPOH on "Y-A"				39.97
	TOTAL				1567.22 Z
	Add Cess @ 1% on "Z-A"				3.06
	Cost of 0.60 sqm.				1570.29
	Cost of 1 sqm.				2617.15
	Say				2617.15
	FOR DPA 30% LESS				**1832.005**

SUB HEAD 17
SANITARY INSTALLATION

17.1 Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:

17.1.1 White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pan				
	MATERIAL				
1954	Vitreous china orrisa type w.c. pan size 580 mm	each	1.00	1290.00	1290.00
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	575.00	575.00
1896	100 mm S.C.I. trap with vent heel	each	1.00	325.00	325.00
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.25	784.00	980.00
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				4321.10 W
	Add 1 % Water charges on "W"				43.21
	TOTAL				4364.31 X
	Add GST on "X" (multiplying factor 0.1405)				613.19
	TOTAL				4977.49 Y
	Add 15% CPOH on "Y"				746.62
	TOTAL				5724.12 Z
	Add Cess @ 1% on "Z"				57.24
	Cost of each				5781.36
	Say				5781.35
	FOR DPA 30% LESS				**4046.945**

17.1.2 Stainless Steel AISI-304(18/8) Orissa pattern W.C. pan of size 585x480 mm with flush pipe and integrated type foot rests

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pan				
	MATERIAL				
7805	Salem Stainless steel AISI - 304 (18/8) Orrisa pattern W.C. pan 724mm X 578mm	each	1.00	4500.00	4500.00
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	575.00	575.00
1896	100 mm S.C.I. trap with vent heel	each	1.00	325.00	325.00
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.25	784.00	980.00
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				7531.10 W
	Add 1 % Water charges on "W"				75.31

	TOTAL				7606.41 X
	Add GST on "X" (multiplying factor 0.1405)				1068.70
	TOTAL				8675.11 Y
	Add 15% CPOH on "Y"				1301.27
	TOTAL				9976.38 Z
	Add Cess @ 1% on "Z"				99.76
	Cost of each				10076.14
	Say				10076.15
	FOR DPA 30% LESS				**7053.305**

17.2 Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :

17.2.1 W.C. pan with ISI marked white solid plastic seat and lid

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pan				
	MATERIAL				
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	410.00	410.00
1955	Vitreous china pedestal type water closet	each	1.00	1025.00	1025.00
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	575.00	575.00
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.25	784.00	980.00
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				4141.10 W
	Add 1 % Water charges on "W"				41.41
	TOTAL				4182.51 X
	Add GST on "X" (multiplying factor 0.1405)				587.64
	TOTAL				4770.15 Y
	Add 15% CPOH on "Y"				715.52
	TOTAL				5485.67 Z
	Add Cess @ 1% on "Z"				54.86
	Cost of each				5540.53
	Say				5540.55
	FOR DPA 30% LESS				**3878.385**

17.2.2 W.C. pan with ISI marked black solid plastic seat and lid

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pan				
	MATERIAL				
1876	Black plastic seat (solid) with lid C.P.brass hinges and rubber buffers	each	1.00	325.00	325.00
1955	Vitreous china pedestal type water closet	each	1.00	1025.00	1025.00
7358	Flushing Cistern P.V.C. 10 lts capacity				

	(low level) (White) (with fittings,				
	accessories and flush pipe)	each	1.00	575.00	575.00
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.25	784.00	980.00
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				4056.10 W
	Add 1 % Water charges on "W"				40.56
	TOTAL				4096.66 X
	Add GST on "X" (multiplying factor 0.1405)				575.58
	TOTAL				4672.24 Y
	Add 15% CPOH on "Y"				700.84
	TOTAL				5373.08 Z
	Add Cess @ 1% on "Z"				53.73
	Cost of each				5426.81
	Say				5426.80
	FOR DPA 30% LESS				**3798.76**

17.3 Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :

17.3.1 W.C. pan with ISI marked white solid plastic seat and lid

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pan				
	MATERIAL				
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	410.00	410.00
1955	Vitreous china pedestal type water closet	each	1.00	1025.00	1025.00
7006	Vitreous china 10 litres low level cistern with fittings	each	1.00	1200.00	1200.00
9999	Overflow arrangement and specials for oveflow pipe	L.S.	62.79	2.12	133.11
1350	Mosquito proof coupling of approved design	each	1.00	30.00	30.00
9999	Plugs ,screws etc.	L.S.	13.52	2.12	28.66
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.00		784.00
0123	Mason (brick layer) 1st class	day	1.00		784.00
0114	Beldar	day	1.00		645.00
	TOTAL				5188.05 W
	Add 1 % Water charges on "W"				51.88
	TOTAL				5239.93 X

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X" (multiplying factor 0.1405)				736.21
	TOTAL				5976.14 Y
	Add 15% CPOH on "Y"				896.42
	TOTAL				6872.56 Z
	Add Cess @ 1% on "Z"				68.73
	Cost of each				6941.29
	Say				6941.30
	FOR DPA 30% LESS				**4858.91**

17.3.2 W.C. pan with ISI marked black solid plastic seat and lid

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pan				
	MATERIAL				
1876	Black plastic seat (solid) with lid C.P.brass hinges and rubber buffers	each	1.00	325.00	325.00
1955	Vitreous china pedestal type water closet	each	1.00	1025.00	1025.00
7006	Vitreous china 10 litres low level cistern with fittings	each	1.00	1200.00	1200.00
9999	Overflow arrangement and specials for oveflow pipe	L.S.	62.79	2.12	133.11
1350	Mosquito proof coupling of approved design	each	1.00	30.00	30.00
9999	Plugs, screws etc.	L.S.	13.52	2.12	28.66
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0123	Mason (brick layer) 1st class	day	1.00	784.00	784.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				5103.05 W
	Add 1 % Water charges on "W"				51.03
	TOTAL				5154.08 X
	Add GST on "X" (multiplying factor 0.1405)				724.15
	TOTAL				5878.23 Y
	Add 15% CPOH on "Y"				881.73
	TOTAL				6759.96 Z
	Add Cess @ 1% on "Z"				67.60
	Cost of each				6827.56
	Say				6827.55
	FOR DPA 30% LESS				**4779.285**

17.4 Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :

17.4.1 One urinal basin with 5 litre white P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1913	Vitreous china lipped front urinal	each	1.00	470.00	470.00
7359	P.V.C. automatic flushing cistern 5 lts				

	capacity	each	1.00	450.00	450.00
7375	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Single lipped urinal	each	1.00	445.00	445.00
9999	Red lead, white lead and gaskit	L.S.	13.52	2.12	28.66
9999	Plugs ,screws etc.	L.S.	13.52	2.12	28.66
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9999	Painting of fittings etc.	L.S.	39.00	2.12	82.68
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	0.88	784.00	689.92
0123	Mason (brick layer) 1st class	day	0.88	784.00	689.92
0114	Beldar	day	1.50	645.00	967.50
	TOTAL				3938.06 W
	Add 1 % Water charges on "W"				39.38
	TOTAL				3977.44 X
	Add GST on "X" (multiplying factor 0.1405)				558.83
	TOTAL				4536.27 Y
	Add 15% CPOH on "Y"				680.44
	TOTAL				5216.71 Z
	Add Cess @ 1% on "Z"				52.17
	Cost of each				5268.87
	Say				5268.85
		FOR DPA 30% LESS			3688.195

17.4.2 Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1913	Vitreous china lipped front urinal	each	2.00	470.00	940.00
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	450.00	450.00
7376	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of two lipped urinals	each	1.00	765.00	765.00
9999	Red lead, white lead and gaskit	L.S.	20.28	2.12	42.99
9999	Plugs ,screws etc.	L.S.	20.28	2.12	42.99
9999	Cement, sand and grit etc.	L.S.	20.28	2.12	42.99
9999	Painting of fittings etc.	L.S.	39.00	2.12	82.68
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.50	784.00	1176.00
0123	Mason (brick layer) 1st class	day	1.50	784.00	1176.00
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				6065.71 W
	Add 1 % Water charges on "W"				60.66
	TOTAL				6126.37 X
	Add GST on "X" (multiplying factor 0.1405)				860.75
	TOTAL				6987.12 Y
	Add 15% CPOH on "Y"				1048.07
	TOTAL				8035.19 Z
	Add Cess @ 1% on "Z"				80.35

	Cost of each				8115.54
	Say				8115.55
		FOR DPA 30% LESS			5680.885

17.4.3 Range of three urinal basins with 10litre white P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1913	Vitreous china lipped front urinal	each	3.00	470.00	1410.00
7361	P.V.C. automatic flushing cistern				
	10 lts capacity	each	1.00	500.00	500.00
7377	G.I. flush pipe and C.P. brass spreader				
	including C.P. connecting pipe Range				
	of three lipped urinals	each	1.00	1050.00	1050.00
9999	Red lead, white lead and gaskit	L.S.	33.67	2.12	71.38
9999	Plugs ,screws etc.	L.S.	33.67	2.12	71.38
9999	Cement, sand and grit etc.	L.S.	33.67	2.12	71.38
9999	Painting of fittings etc.	L.S.	39.00	2.12	82.68
9977	Carriage of materials	L.S.	40.30	2.12	85.44
	LABOUR				
0116	Fitter (grade 1)	day	2.00	784.00	1568.00
0123	Mason (brick layer) 1st class	day	2.00	784.00	1568.00
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				8413.26 W
	Add 1 % Water charges on "W"				84.13
	TOTAL				8497.39 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1193.88
	TOTAL				9691.27 Y
	Add 15% CPOH on "Y"				1453.69
	TOTAL				11144.96 Z
	Add Cess @ 1% on "Z"				111.45
	Cost of each				11256.41
	Say				11256.40
	FOR DPA 30% LESS				7879.48

17.4.4 Range of four urinal basins with 10 litre white P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1913	Vitreous china lipped front urinal	each	4.00	470.00	1880.00
7361	P.V.C. automatic flushing cistern				
	10 lts capacity	each	1.00	500.00	500.00
7378	G.I. flush pipe and C.P. brass spreader				
	including C.P. connecting pipe Range				
	of four lipped urinals	each	1.00	1430.00	1430.00
9999	Red lead, white lead and gaskit	L.S.	53.82	2.12	114.10
9999	Plugs ,screws etc.	L.S.	53.82	2.12	114.10
9999	Cement, sand and grit etc.	L.S.	53.82	2.12	114.10
9999	Painting of fittings etc.	L.S.	39.00	2.12	82.68
9977	Carriage of materials	L.S.	53.82	2.12	114.10

	LABOUR				
0116	Fitter (grade 1)	day	3.00	784.00	2352.00
0123	Mason (brick layer) 1st class	day	3.00	784.00	2352.00
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				11633.07 W
	Add 1 % Water charges on "W"				116.33
	TOTAL				11749.40 X
	Add GST on "X" (multiplying factor 0.1405)				1650.79
	TOTAL				13400.20 Y
	Add 15% CPOH on "Y"				2010.03
	TOTAL				15410.22 Z
	Add Cess @ 1% on "Z"				154.10
	Cost of each				15564.33
	Say				15564.35
	FOR DPA 30% LESS				**10895.045**

17.5 Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350 mm with white PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required :

17.5.1 Single half stall urinal with 5 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate	Amount
7379	Details of cost for one no. MATERIAL	each	1.00	865.00	865.00
7359	White vitreous china clay half stall urinal flat	each	1.00	450.00	450.00
1532	back 580x380x350 mm or angle back	each	1.00	310.00	310.00
1891	450x375x350 mm with waste fittings as per IS :	each	1.00	190.00	190.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	40.43	2.12	85.71
	LABOUR				
0116	Fitter (grade 1)	day	1.75	784.00	1372.00
0123	Mason (brick layer) 1st class	day	2.00	784.00	1568.00
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				7570.09 W
	Add 1 % Water charges on "W"				75.70
	TOTAL				7645.79 X
	Add GST on "X" (multiplying factor 0.1405)				1074.23
	TOTAL				8720.02 Y
	Add 15% CPOH on "Y"				1308.00
	TOTAL				10028.02 Z
	Add Cess @ 1% on "Z"				100.28
	Cost of each				10128.30
	Say				10128.30
	FOR DPA 30% LESS				**7089.81**

17.5.2 Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				

7379	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556	each	2.00	865.00	1730.00
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	450.00	450.00
1533	Flush pipe with union spreaders and clamps all in C.P. brass for double stall	each	1.00	425.00	425.00
1891	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 50 mm dia	each	1.00	190.00	190.00
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	53.82	2.12	114.10
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	53.82	2.12	114.10
	LABOUR				
0116	Fitter (grade 1)	day	2.50	784.00	1960.00
0123	Mason (brick layer) 1st class	day	3.00	784.00	2352.00
0114	Beldar	day	6.00	645.00	3870.00
	TOTAL				11297.52 W
	Add 1 % Water charges on "W"				112.98
	TOTAL				11410.50 X
	Add GST on "X" (multiplying factor 0.1405)				1603.17
	TOTAL				13013.67 Y
	Add 15% CPOH on "Y"				1952.05
	TOTAL				14965.72 Z
	Add Cess @ 1% on "Z"				149.66
	Cost of each				15115.38
	Say				15115.40
	FOR DPA 30% LESS				**10580.78**

17.5.3 Range of three half stall urinals with 10 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7379	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556	each	3.00	865.00	2595.00
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	500.00	500.00
1534	Flush pipe with union spreaders and clamps all in C.P. brass for range of three stall	each	1.00	525.00	525.00
1893	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 80 mm dia	each	1.00	225.00	225.00
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	80.73	2.12	171.15
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12

9977	Carriage of materials	L.S.	67.21	2.12	142.49
	LABOUR				
0116	Fitter (grade 1)	day	3.00	784.00	2352.00
0123	Mason (brick layer) 1st class	day	3.50	784.00	2744.00
0114	Beldar	day	7.00	645.00	4515.00
	TOTAL				13861.96 W
	Add 1 % Water charges on "W"				138.62
	TOTAL				14000.58 X
	Add GST on "X" (multiplying factor 0.1405)				1967.08
	TOTAL				15967.66 Y
	Add 15% CPOH on "Y"				2395.15
	TOTAL				18362.81 Z
	Add Cess @ 1% on "Z"				183.63
	Cost of each				18546.44
	Say				18546.45
		FOR DPA 30% LESS			**12982.515**

17.5.4 Range of four half stall urinals with 10 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556 P.V.C. automatic flushing cistern 10 lts				
7379	capacity				
	Flush pipe with union spreaders and clamps all in C.P. brass for range of four stall C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 80 mm dia Red lead, white lead and gaskit				
	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556	each	4.00	865.00	3460.00
7361	P.V.C. automatic flushing cistern 10 lts capacity				
	Flush pipe with union spreaders and clamps all in C.P. brass for range of four stall	each	1.00	500.00	500.00
1535					
		each	1.00	610.00	610.00
1893					
		each L.S.	1.00	225.00	225.00
9999			17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	107.64	2.12	228.20
9999	Painting of fittings etc.	L.S.	39.00	2.12	82.68
9977	Carriage of materials	L.S.	80.73	2.12	171.15
	LABOUR				
0116	Fitter (grade 1)	day	3.50	784.00	2744.00
0123	Mason (brick layer) 1st class	day	4.00	784.00	3136.00
0114	Beldar	day	8.00	645.00	5160.00
	TOTAL				16354.23 W
	Add 1 % Water charges on "W"				163.54
	TOTAL				16517.77 X
	Add GST on "X" (multiplying factor 0.1405)				2320.75

	TOTAL				18838.52 Y
	Add 15% CPOH on "Y"				2825.78
	TOTAL				21664.30 Z
	Add Cess @ 1% on "Z"				216.64
	Cost of each				21880.94
	Say				21880.95
	FOR DPA 30% LESS				**15316.665**

17.6 Providing and fixing one piece construction white vitreous china squatting plate with an integral longitudinal flushing pipe, white P.V.C. automatic flushing cistern, with fittings, standard size G.I. / PVC flush pipe for back and front flush with standard spreader pipes with fittings, G.I clamps and C.P. brass coupling complete, including painting of fittings and cutting and making good the walls and floors etc. wherever required :

17.6.1 Single squatting plate with 5 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1915	Vitreous china squatting plate urinal	each	1.00	1053.00	1053.00
7359	P.V.C. automatic flushing cistern				
	5 lts capacity	each	1.00	450.00	450.00
1540	Flush pipe and spreaders G.I.for single				
	set of one squatting plate urinal	each	1.00	190.00	190.00
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.75	784.00	1372.00
0123	Mason (brick layer) 1st class	day	0.75	784.00	588.00
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				5794.42 W
	Add 1 % Water charges on "W"				57.94
	TOTAL				5852.37 X
	Add GST on "X" (multiplying factor 0.1405)				822.26
	TOTAL				6674.63 Y
	Add 15% CPOH on "Y"				1001.19
	TOTAL				7675.82 Z
	Add Cess @ 1% on "Z"				76.76
	Cost of each				7752.58
	Say				7752.60
	FOR DPA 30% LESS				**5426.82**

17.6.2 Range of two squatting plates with 5 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1915	Vitreous china squatting plate urinal	each	2.00	1053.00	2106.00
7359	P.V.C. automatic flushing cistern				
	5 lts capacity	each	1.00	450.00	450.00
1541	Flush pipe and spreaders G.I.for range				
	of two squatting plates urinal	each	1.00	275.00	275.00
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21

9999	Cement, sand and grit etc.	L.S.	53.82	2.12	114.10
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	33.15	2.12	70.28
	LABOUR				
0116	Fitter (grade 1)	day	2.50	784.00	1960.00
0123	Mason (brick layer) 1st class	day	1.00	784.00	784.00
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				8431.70 W
	Add 1 % Water charges on "W"				84.32
	TOTAL				8516.02 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1196.50
	TOTAL				9712.52 Y
	Add 15% CPOH on "Y"				1456.88
	TOTAL				11169.40 Z
	Add Cess @ 1% on "Z"				111.69
	Cost of each				11281.09
	Say				11281.10
	FOR DPA 30% LESS				**7896.77**

17.6.3 Range of three squatting plates with 10 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1915	Vitreous china squatting plate urinal	each	3.00	1053.00	3159.00
7361	P.V.C. automatic flushing cistern				
	10 lts capacity	each	1.00	500.00	500.00
1542	Flush pipe and spreaders G.I.for range				
	of three squatting plates urinal	each	1.00	310.00	310.00
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	80.73	2.12	171.15
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	42.12	2.12	89.29
	LABOUR				
0116	Fitter (grade 1)	day	3.00	784.00	2352.00
0123	Mason (brick layer) 1st class	day	1.50	784.00	1176.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0114	Beldar	day	5.00	645.00	3225.00
	TOTAL				11074.77 W
	Add 1 % Water charges on "W"				110.75
	TOTAL				11185.52 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1571.56
	TOTAL				12757.08 Y
	Add 15% CPOH on "Y"				1913.56
	TOTAL				14670.64 Z
	Add Cess @ 1% on "Z"				146.71
	Cost of each				14817.35
	Say				14817.35
	FOR DPA 30% LESS				10372.15

17.6.4 Range of four squatting plates with 10 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				

1915	Vitreous china squatting plate urinal	each	4.00	1053.00	4212.00
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	500.00	500.00
1543	Flush pipe and spreaders G.I.for range of four squatting plates urinal	each	1.00	450.00	450.00
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	107.64	2.12	228.20
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	69.03	2.12	146.34
	LABOUR				
0116	Fitter (grade 1)	day	3.50	784.00	2744.00
0123	Mason (brick layer) 1st class	day	1.75	784.00	1372.00
0114	Beldar	day	5.50	645.00	3547.50
	TOTAL				13292.37 W
	Add 1 % Water charges on "W"				132.92
	TOTAL				13425.29 X
	Add GST on "X" (multiplying factor 0.1405)				1886.25
	TOTAL				15311.54 Y
	Add 15% CPOH on "Y"				2296.73
	TOTAL				17608.27 Z
	Add Cess @ 1% on "Z"				176.08
	Cost of each				17784.36
	Say				17784.35
	FOR DPA 30% LESS				**12449.045**

17.7 Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:

17.7.1 White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1947	Vitreous china flat back wash basin 630x450 mm	each	1.00	725.00	725.00
1885	15 mm C.P.brass tap	each	2.00	270.00	540.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1700.37 W
	Add 1 % Water charges on "W"				17.00
	TOTAL				1717.37 X
	Add GST on "X" (multiplying factor 0.1405)				241.29
	TOTAL				1958.67 Y
	Add 15% CPOH on "Y"				293.80
	TOTAL				2252.47 Z
	Add Cess @ 1% on "Z"				22.52
	Cost of each				2274.99

	Say				2275.00
	FOR DPA 30% LESS				**1592.5**

17.7.2 White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1947	Vitreous china flat back wash basin				
	630x450 mm	each	1.00	725.00	725.00
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1430.37 W
	Add 1 % Water charges on "W"				14.30
	TOTAL				1444.67 X
	Add GST on "X" (multiplying				
	factor 0.1405)				202.98
	TOTAL				1647.65 Y
	Add 15% CPOH on "Y"				247.15
	TOTAL				1894.80 Z
	Add Cess @ 1% on "Z"				18.95
	Cost of each				1913.75
	Say				1913.75
	FOR DPA 30% LESS				1339.63

17.7.3 White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3229	Vitreous china flat back wash basin				
	550x400 mm	each	1.00	550.00	550.00
1885	15 mm C.P.brass tap	each	2.00	270.00	540.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1525.37 W
	Add 1 % Water charges on "W"				15.25
	TOTAL				1540.62 X
	Add GST on "X" (multiplying				
	factor 0.1405)				216.46
	TOTAL				1757.08 Y
	Add 15% CPOH on "Y"				263.56
	TOTAL				2020.65 Z
	Add Cess @ 1% on "Z"				20.21
	Cost of each				2040.85
	Say				2040.85

	FOR DPA 30% LESS				1428.60

17.7.4 White Vitreous China Flat back wash basin size 550x 400 mm with single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate	Amount
3229	Details of cost for one no. MATERIAL Vitreous china flat back wash basin 550x400 mm	each	1.00	550.00	550.00
Code	Description	Unit	Quantity	Rate	Amount
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1255.37 W
	Add 1 % Water charges on "W"				12.55
	TOTAL				1267.92 X
	Add GST on "X" (multiplying factor 0.1405)				178.14
	TOTAL				1446.07 Y
	Add 15% CPOH on "Y"				216.91
	TOTAL				1662.98 Z
	Add Cess @ 1% on "Z"				16.63
	Cost of each				1679.61
	Say				1679.60
	FOR DPA 30% LESS				1175.72

17.7.5 White Vitreous China Angle back wash basin size 600 x 480 mm with single

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1949	Vitreous china angle back wash basin				
	600x480 mm	each	1.00	725.00	725.00
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1430.37 W
	Add 1 % Water charges on "W"				14.30
	TOTAL				1444.67 X
	Add GST on "X" (multiplying factor 0.1405)				202.98
	TOTAL				1647.65 Y
	Add 15% CPOH on "Y"				247.15
	TOTAL				1894.80 Z
	Add Cess @ 1% on "Z"				18.95
	Cost of each				1913.75
	Say				1913.75

	FOR DPA 30% LESS				1339.63

17.7.6 White Vitreous China Angle back wash basin size 400 x 400 mm with single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1950	Vitreous china angle back wash basin				
	400x400 mm	each	1.00	425.00	425.00
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1130.37 W
	Add 1 % Water charges on "W"				11.30
	TOTAL				1141.67 X
	Add GST on "X" (multiplying factor 0.1405)				160.41
	TOTAL				1302.08 Y
	Add 15% CPOH on "Y"				195.31
	TOTAL				1497.39 Z
	Add Cess @ 1% on "Z"				14.97
	Cost of each				1512.37
	Say				1512.35
	FOR DPA 30% LESS				**1058.645**

17.7.7 White Vitreous China Flat back wash basin size 450x 300 mm with single 15mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7004	Vitreous china flat back wash basin				
	450x300 mm	each	1.00	280.00	280.00
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				985.37 W
	Add 1 % Water charges on "W"				9.85
	TOTAL				995.22 X
	Add GST on "X" (multiplying factor 0.1405)				139.83
	TOTAL				1135.05 Y
	Add 15% CPOH on "Y"				170.26

	TOTAL				1305.31 Z
	Add Cess @ 1% on "Z"				13.05
	Cost of each				1318.37
	Say				1318.35
	FOR DPA 30% LESS				922.85

17.7.8 White Vitreous China Surgeon type wash basin of size 660x460 mm with a

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3213	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1.00	1100.00	1100.00
7363	15 mm C.P. brass tap with elbow operation lever	each	2.00	430.00	860.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				2395.37 W
	Add 1 % Water charges on "W"				23.95
	TOTAL				2419.32 X
	Add GST on "X" (multiplying factor 0.1405)				339.92
	TOTAL				2759.24 Y
	Add 15% CPOH on "Y"				413.89
	TOTAL				3173.13 Z
	Add Cess @ 1% on "Z"				31.73
	Cost of each				3204.86
	Say				3204.85
	FOR DPA 30% LESS				2243.40

17.7.9 White Vitreous China Surgeon type wash basin of size 660x460 mm with single 15 mm C.P.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3213	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1.00	1100.00	1100.00
7363	15 mm C.P. brass tap with elbow operation lever	each	1.00	430.00	430.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1965.37 W
	Add 1 % Water charges on "W"				19.65
	TOTAL				1985.02 X

	Add GST on "X" (multiplying factor 0.1405)				278.90
	TOTAL				2263.92 Y
	Add 15% CPOH on "Y"				339.59
	TOTAL				2603.51 Z
	Add Cess @ 1% on "Z"				26.04
	Cost of each				2629.54
	Say				2629.55
	FOR DPA 30% LESS				**1840.685**

17.7.10 Stainless Steel AISI-304(18/8) Round basin 405x355 mm with single 15 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7806	Salem Stainless steel AISI - 304 (18/8) Round basin 405mm X 355mm	each	1.00	1500.00	1500.00
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				2205.37 W
	Add 1 % Water charges on "W"				22.05
	TOTAL				2227.42 X
	Add GST on "X" (multiplying factor 0.1405)				312.95
	TOTAL				2540.38 Y
	Add 15% CPOH on "Y"				381.06
	TOTAL				2921.43 Z
	Add Cess @ 1% on "Z"				29.21
	Cost of each				2950.65
	Say				2950.65
			FOR DPA 30% LESS		2065.46

17.7.11 Stainless Steel AISI-304(18/8) Wash basin 530x345 mm with single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7807	Salem Stainless steel AISI - 304 (18/8) Wash basin 530mm X 345mm	each	1.00	2000.00	2000.00
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39

9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				2705.37 W
	Add 1 % Water charges on "W"				27.05
	TOTAL				2732.42 X
	Add GST on "X" (multiplying factor 0.1405)				383.91
	TOTAL				3116.33 Y
	Add 15% CPOH on "Y"				467.45
	TOTAL				3583.78 Z
	Add Cess @ 1% on "Z"				35.84
	Cost of each				3619.62
	Say				3619.60
	FOR DPA 30% LESS				2533.72

17.7A Providing and fixing wash basin with C.I. brackets, 15 mm dia CP Brass single hole basin mixer of approved quality and make, including painting of fittings and brackets, cutting and making good the walls wherever required:-

(a) White Vitreous China Wash basin size 550x400 mm with a 15 mm CP Brass single hole basin

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3229	Vitreous china flat back wash basin 550x400 mm	each	1.00	550.00	550.00
9001	C.P. Brass Centre Hole Basin Mixer With Cast Spout (Kigston/Marc/Prima/ Parko/Hindware)	each	1.00	1600.00	1600.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, Sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				2585.37 W
	Add 1 % Water charges on "W"				25.85
	TOTAL				2611.22 X
	Add GST on "X" (multiplying factor 0.1405)				366.88
	TOTAL				2978.10 Y
	Add 15% CPOH on "Y"				446.72
	TOTAL				3424.82 Z
	Add Cess @ 1% on "Z"				34.25
	Cost of each				3459.07
	Say				3459.05
	FOR DPA 30% LESS				**2421.335**

17.7B Providing and fixing wash basin with C.I. brackets, 15 mm PTMT pillar cock, 32 mm PTMT waste coupling of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required. White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm PTMT pillar cock.

Code	Description	Unit	Quantity	Rate	Amount

3229	Details of cost for 1 No. MATERIAL	each each	1.00	550.00	550.00
7406	Vitreous china flat back wash basin 550x400	each pair L.S.	1.00	115.00	115.00
7491	mm	L.S.	1.00	34.00	34.00
1309	PTMT pillar cock		1.00	88.00	88.00
9999	PTMT - Waste Coupling 31/32 mm		16.12	2.12	34.17
9999	C.I. bracket for wash basin and sinks Red Lead, White Lead and Gasket Cement, sand and grit etc		13.39	2.12	28.39

Code	Description	Unit	Quantity	Rate	Amount
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1049.37 W
	Add 1 % Water charges on "W"				10.49
	TOTAL				1059.86 X
	Add GST on "X" (multiplying factor 0.1405)				148.91
	TOTAL				1208.78 Y
	Add 15% CPOH on "Y"				181.32
	TOTAL				1390.09 Z
	Add Cess @ 1% on "Z"				13.90
	Cost of each				1403.99
	Say				1404.00
	FOR DPA 30% LESS				**982.8**

17.8 Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pedestal MATERIAL				
1396	Vitrous china pedestal for wash basin	each	1.00	950.00	950.00
9999	White cement mortar	L.S.	40.30	2.12	85.44
9988	Carriage of materials and fixing charges	L.S.	40.43	2.12	85.71
	TOTAL				1121.15 W
	Add 1 % Water charges on "W"				11.21
	TOTAL				1132.36 X
	Add GST on "X" (multiplying factor 0.1405)				159.10
	TOTAL				1291.46 Y
	Add 15% CPOH on "Y"				193.72
	TOTAL				1485.17 Z
	Add Cess @ 1% on "Z"				14.85
	Cost of each				1500.03
	Say				1500.05
		FOR DPA 30% LESS			**1050.04**

17.9 Providing and fixing kitchen sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P. brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required:

17.9.1 White glazed fire clay kitchen sink of size 600x450x 250 mm

Code	Description	Unit	Quantity	Rate	Amount
1863	Details of cost for one no. MATERIAL				
1309	Fire clay kitchen sink: 600x450x 250 mm		1.00	1300.00	1300.00
1315	C.I. bracket for wash basin and sinks C.P.brass	each pair	1.00	88.00	88.00
1952	chain with 40 mm dia rubber plug	each each	1.00	40.00	40.00
	C.P. brass waste 40 mm		1.00	100.00	100.00

Code	Description	Unit	Quantity	Rate	Amount
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting brackets etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0114	Beldar	day	0.56	645.00	361.20
	TOTAL				2468.67 W
	Add 1 % Water charges on "W"				24.69
	TOTAL				2493.36 X
	Add GST on "X" (multiplying factor 0.1405)				350.32
	TOTAL				2843.68 Y
	Add 15% CPOH on "Y"				426.55
	TOTAL				3270.23 Z
	Add Cess @ 1% on "Z"				32.70
	Cost of each				3302.93
	Say				3302.95
		FOR DPA 30% LESS			2312.07

17.10 Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :

17.10.1 Kitchen sink with drain board

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7095	Stainless steel kitchen sink - with drain board bowl depth 250 mm.	each	1.00	3000.00	3000.00
1309	C.I. bracket for wash basin and sinks	pair	2.00	88.00	176.00
9999	Cement, sand and grit etc.	L.S.	27.04	2.12	57.32
9999	Painting of brackets etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.60	784.00	470.40
0114	Beldar	day	0.82	645.00	528.90
	TOTAL				4490.82 W
	Add 1 % Water charges on "W"				44.91
	TOTAL				4535.72 X
	Add GST on "X" (multiplying factor 0.1405)				637.27
	TOTAL				5172.99 Y
	Add 15% CPOH on "Y"				775.95
	TOTAL				5948.94 Z
	Add Cess @ 1% on "Z"				59.49
	Cost of each				6008.43
	Say				6008.45
		FOR DPA 30% LESS			4205.92

17.10.1.2 510x1040 mm bowl depth 225 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7096	Stainlees steel kitchen sink - with drain board 510 x 1040mm bowl depth 225 mm.	each	1.00	3500.00	3500.00
1309	C.I. bracket for wash basin and sinks	pair	2.00	88.00	176.00
9999	Cement, sand and grit etc.	L.S.	27.04	2.12	57.32
9999	Painting of brackets etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.60	784.00	470.40
0114	Beldar	day	0.82	645.00	528.90
	TOTAL				4990.82 W
	Add 1 % Water charges on "W"				49.91
	TOTAL				5040.72 X
	Add GST on "X" (multiplying factor 0.1405)				708.22
	TOTAL				5748.95 Y
	Add 15% CPOH on "Y"				862.34
	TOTAL				6611.29 Z
	Add Cess @ 1% on "Z"				66.11
	Cost of each				6677.40
	Say				6677.40
	FOR DPA 30% LESS				**4674.18**

17.10.1.3 510x1040 mm bowl depth 200 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7097	Stainlees steel kitchen sink - with drain board 510 x 1040mm bowl depth 200 mm.	each	1.00	3200.00	3200.00
1309	C.I. bracket for wash basin and sinks	pair	2.00	88.00	176.00
9999	Cement, sand and grit etc.	L.S.	27.04	2.12	57.32
9999	Painting of brackets etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.60	784.00	470.40
0114	Beldar	day	0.82	645.00	528.90
	TOTAL				4690.82 W
	Add 1 % Water charges on "W"				46.91
	TOTAL				4737.72 X
	Add GST on "X" (multiplying factor 0.1405)				665.65
	TOTAL				5403.37 Y
	Add 15% CPOH on "Y"				810.51
	TOTAL				6213.88 Z
	Add Cess @ 1% on "Z"				62.14
	Cost of each				6276.02
	Say				6276.00
	FOR DPA 30% LESS				**4393.2**

17.10.1.4 510x1040 mm bowl depth 178 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7098	Stainless steel kitchen sink - with drain board 510x1040mm bowl depth 178 mm	each	1.00	3000.00	3000.00
1309	C.I. bracket for wash basin and sinks	pair	2.00	88.00	176.00
9999	Cement, sand and grit etc.	L.S.	27.04	2.12	57.32
9999	Painting brackets	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.60	784.00	470.40
0114	Beldar	day	0.82	645.00	528.90
	TOTAL				4490.82 W
	Add 1 % Water charges on "W"				44.91
	TOTAL				4535.72 X
	Add GST on "X" (multiplying factor 0.1405)				637.27
	TOTAL				5172.99 Y
	Add 15% CPOH on "Y"				775.95
	TOTAL				5948.94 Z
	Add Cess @ 1% on "Z"				59.49
	Cost of each				6008.43
	Say				6008.45
	FOR DPA 30% LESS				**4205.915**

17.10.2 Kitchen sink without drain board

17.10.2.1 610x510 mm bowl depth 200 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7101	Stainless steel kitchen sink - without drain board 610x510mm bowl depth 200 mm	each	1.00	2200.00	2200.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9999	Painting brackets	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0114	Beldar	day	0.56	645.00	361.20
	TOTAL				3194.77 W
	Add 1 % Water charges on "W"				31.95
	TOTAL				3226.72 X
	Add GST on "X" (multiplying factor 0.1405)				453.35
	TOTAL				3680.08 Y
	Add 15% CPOH on "Y"				552.01
	TOTAL				4232.09 Z
	Add Cess @ 1% on "Z"				42.32

Code	Description	Unit	Quantity	Rate	Amount
	Cost of each				4274.41
	Say				4274.40
	FOR DPA 30% LESS				**2992.08**

17.10.2.2 610x460 mm bowl depth 200 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7102	Stainless steel kitchen sink - without drain board 610x460mm bowl depth 200 mm.	each	1.00	1500.00	1500.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9999	Painting brackets	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0114	Beldar	day	0.56	645.00	361.20
	TOTAL				2494.77 W
	Add 1 % Water charges on "W"				24.95
	TOTAL				2519.72 X
	Add GST on "X" (multiplying factor 0.1405)				354.02
	TOTAL				2873.74 Y
	Add 15% CPOH on "Y"				431.06
	TOTAL				3304.80 Z
	Add Cess @ 1% on "Z"				33.05
	Cost of each				3337.85
	Say				3337.85
	FOR DPA 30% LESS				**2336.495**

17.10.2.3 470x420 mm bowl depth 178 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7103	Stainless steel kitchen sink - without drain board 470x420mm bowl depth 178 mm	each	1.00	1200.00	1200.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9999	Painting brackets	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0114	Beldar	day	0.56	645.00	361.20
	TOTAL				2194.77 W
	Add 1 % Water charges on "W"				21.95
	TOTAL				2216.72 X
	Add GST on "X" (multiplying factor 0.1405)				311.45
	TOTAL				2528.17 Y

	Add 15% CPOH on "Y"				379.23
	TOTAL				2907.40 Z
	Add Cess @ 1% on "Z"				29.07
	Cost of each				2936.47
	Say				2936.45
	FOR DPA 30% LESS				**2055.515**

17.11 Providing and fixing white vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required :

17.11.1 Size 450x300x150 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1871	White vitreous china laboratry sink 450x300x150 mm	each	1.00	1500.00	1500.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
1315	C.P.brass chain with 40 mm dia rubber plug	each	1.00	40.00	40.00
1952	C.P. brass waste 40 mm	each	1.00	100.00	100.00
1895	C.P.brass trap40 mm dia	each	1.00	315.00	315.00
3617	C.P.brass union 40 mm dia	each	1.00	210.00	210.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Sundries	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0114	Beldar	day	0.56	645.00	361.20
	TOTAL				3193.67 W
	Add 1 % Water charges on "W"				31.94
	TOTAL				3225.61 X
	Add GST on "X" (multiplying factor 0.1405)				453.20
	TOTAL				3678.81 Y
	Add 15% CPOH on "Y"				551.82
	TOTAL				4230.63 Z
	Add Cess @ 1% on "Z"				42.31
	Cost of each				4272.94
	Say				4272.95
		FOR DPA 30% LESS			2991.07

17.11.2 Size 600x450x200 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1872	White vitreous china laboratry sink 600x450x200 mm	each	1.00	2500.00	2500.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
1315	C.P.brass chain with 40 mm dia rubber plug	each	1.00	40.00	40.00
1952	C.P. brass waste 40 mm	each	1.00	100.00	100.00
1895	C.P.brass trap40 mm dia	each	1.00	315.00	315.00

3617	C.P.brass union 40 mm dia	each	1.00	210.00	210.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Sundries	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0114	Beldar	day	0.56	645.00	361.20
	TOTAL				4193.67 W
	Add 1 % Water charges on "W"				41.94
	TOTAL				4235.61 X
	Add GST on "X" (multiplying factor 0.1405)				595.10
	TOTAL				4830.71 Y
	Add 15% CPOH on "Y"				724.61
	TOTAL				5555.32 Z
	Add Cess @ 1% on "Z"				55.55
	Cost of each				5610.87
	Say				5610.85
	FOR DPA 30% LESS				3927.60

17.12 Providing and fixing draining board with C.I. brackets including painting of brackets, cutting and making good the walls wherever required :

17.12.1 White glazed fire clay draining board of size 600x450x 25 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7364	White glazed fire clay draining board 600x450x25 mm	each	1.00	500.00	500.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting brackets etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	7.80	2.12	16.54
	LABOUR				
0116	Fitter (grade 1)	day	0.06	784.00	47.04
0123	Mason (brick layer) 1st class	day	0.17	784.00	133.28
0114	Beldar	day	0.22	645.00	141.90
	TOTAL				1010.26 W
	Add 1 % Water charges on "W"				10.10
	TOTAL				1020.37 X
	Add GST on "X" (multiplying factor 0.1405)				143.36
	TOTAL				1163.73 Y
	Add 15% CPOH on "Y"				174.56
	TOTAL				1338.29 Z
	Add Cess @ 1% on "Z"				13.38
	Cost of each				1351.67
	Say				1351.65
	FOR DPA 30% LESS				**946.155**

17.13 Providing and fixing white vitreous china water closet squatting pan (Indian type) :

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				

1953	Vitreous china indian type w.c. pan size 580 mm	each	1.00	475.00	475.00
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1246.55 W
	Add 1 % Water charges on "W"				12.47
	TOTAL				1259.01 X
	Add GST on "X" (multiplying factor 0.1405)				176.89
	TOTAL				1435.91 Y
	Add 15% CPOH on "Y"				215.39
	TOTAL				1651.29 Z
	Add Cess @ 1% on "Z"				16.51
	Cost of each				1667.81
	Say				1667.80
	FOR DPA 30% LESS				**1167.46**

17.13.2 Orissa pattern W.C. pan of size 580x440 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1954	Vitreous china orrisa type w.c. pan size 580 mm	each	1.00	1290.00	1290.00
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				2061.55 W
	Add 1 % Water charges on "W"				20.62
	TOTAL				2082.16 X
	Add GST on "X" (multiplying factor 0.1405)				292.54
	TOTAL				2374.71 Y
	Add 15% CPOH on "Y"				356.21
	TOTAL				2730.92 Z
	Add Cess @ 1% on "Z"				27.31
	Cost of each				2758.22
	Say				2758.20
	FOR DPA 30% LESS				**1930.74**

17.14 Extra for using coloured W.C. pan instead of white W.C. pan :

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
	Difference in cost of				
7104	Coloured Orissa pattern W.C. pan 580x440 mm	each	1.00	1600.00	1600.00
1954	Vitreous china orrisa type w.c. pan size 580 mm	each	-1.00	1290.00	-1290.00
	TOTAL				310.00 W
	Add 1 % Water charges on "W"				3.10

	TOTAL				313.10 X
	Add GST on "X" (multiplying factor 0.1405)				43.99
	TOTAL				357.09 Y
	Add 15% CPOH on "Y"				53.56
	TOTAL				410.65 Z
	Add Cess @ 1% on "Z"				4.11
	Cost of each				414.76
	Say				414.75
	FOR DPA 30% LESS				**290.325**

17.15 Providing and fixing white vitreous china pedestal type (European type/ wash down type) water closet pan.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1955	Vitreous china pedestal type water closet	each	1.00	1025.00	1025.00
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1796.55 W
	Add 1 % Water charges on "W"				17.97
	TOTAL				1814.51 X
	Add GST on "X" (multiplying factor 0.1405)				254.94
	TOTAL				2069.45 Y
	Add 15% CPOH on "Y"				310.42
	TOTAL				2379.87 Z
	Add Cess @ 1% on "Z"				23.80
	Cost of each				2403.67
	Say				2403.65
	FOR DPA 30% LESS				**1682.555**

17.16 Extra for using coloured pedestal type W.C pan (European type) with low level cistern of same colour instead of white vitreous china W.C pan and cistern.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7105	Coloured Pedestal type W.C. pan 580x440 mm (European type)	each	1.00	850.00	850.00
	Deduct				
1955	Vitreous china pedestal type water closet	each	-1.00	1025.00	-1025.00
7106	Coloured Vitreous china 10 lit. low level cistern	each	1.00	1000.00	1000.00
	Deduct				
7005	Vitreous china 10 litres low level cistern without fittings	each	-1.00	700.00	-700.00
	TOTAL				125.00 W
	Add 1 % Water charges on "W"				1.25
	TOTAL				126.25 X
	Add GST on "X" (multiplying				

	factor 0.1405)				17.74
	TOTAL				143.99 Y
	Add 15% CPOH on "Y"				21.60
	TOTAL				165.59 Z
	Add Cess @ 1% on "Z"				1.66
	Cost of each				167.24
	Say				167.25
	FOR DPA 30% LESS				**117.075**

17.16A Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 No.				
1313	8 mm dia C.P. Brass/ S.S. Jet with flexible tube upto 1 metre long with S.S. tringular plate for Eureopean type W.C.(Hindware/Kingston/Prima/Parko/ Marc)	each	1.00	200.00	200.00
9999	Carriage of material and fixing charges	L.S.	11.20	2.12	23.74
	TOTAL				223.74 W
	Add 1 % Water charges on "W"				2.24
	TOTAL				225.98 X
	Add GST on "X" (multiplying factor 0.1405)				31.75
	TOTAL				257.73 Y
	Add 15% CPOH on "Y"				38.66
	TOTAL				296.39 Z
	Add Cess @ 1% on "Z"				2.96
	Cost of each				299.36
	Say				299.35
	FOR DPA 30% LESS				**209.545**

17.17 Providing and fixing a pair of white vitreous china foot rests of standard pattern for squatting pan water closet :

17.17.1 250x130x30 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pair				
	MATERIAL				
1363	Vitreous china foot rests 250x130x30 mm	pair	1.00	100.00	100.00
9988	Cement, sand including carriage of materials	L.S.	8.06	2.12	17.09
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.06	784.00	47.04
	TOTAL				164.13 W
	Add 1 % Water charges on "W"				1.64
	TOTAL				165.77 X
	Add GST on "X" (multiplying factor 0.1405)				23.29
	TOTAL				189.06 Y
	Add 15% CPOH on "Y"				28.36
	TOTAL				217.42 Z
	Add Cess @ 1% on "Z"				2.17
	Cost for 1 pair				219.59
	Say				219.60
	FOR DPA 30% LESS				**153.72**

17.17.2 250x125x25 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pair				
	MATERIAL				
1970	Vitreous china foot rests 250x125x25 mm	pair	1.00	103.00	103.00
9988	Cement, sand including carriage				
	of materials	L.S.	8.06	2.12	17.09
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.06	784.00	47.04
	TOTAL				167.13 W
	Add 1 % Water charges on "W"				1.67
	TOTAL				168.80 X
	Add GST on "X" (multiplying				
	factor 0.1405)				23.72
	TOTAL				192.51 Y
	Add 15% CPOH on "Y"				28.88
	TOTAL				221.39 Z
	Add Cess @ 1% on "Z"				2.21
	Cost for 1 pair				223.61
	Say				223.60
	FOR DPA 30% LESS				**156.52**

17.18 Providing and fixing P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete.

17.18.1 10 litre capacity - White

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7358	Flushing Cistern P.V.C. 10 lts capacity				
	(low level) (White) (with fittings,				
	accessories and flush pipe)	each	1.00	575.00	575.00
9977	Carriage of materials	L.S.	5.20	2.12	11.02
	LABOUR				
	(Considering 1 fitter and 1 beldar can				
	fix 8 cistern in one day)				
0116	Fitter (grade 1)	day	0.125	784.00	98.00
0114	Beldar	day	0.125	645.00	80.63
	TOTAL				764.65 W
	Add 1 % Water charges on "W"				7.65
	TOTAL				772.30 X
	Add GST on "X" (multiplying				
	factor 0.1405)				108.51
	TOTAL				880.80 Y
	Add 15% CPOH on "Y"				132.12
	TOTAL				1012.92 Z
	Add Cess @ 1% on "Z"				10.13
	Cost of each				1023.05
	Say				1023.05
	FOR DPA 30% LESS				**716.135**

17.18.2 10 litre capacity - coloured

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				

7123	Coloured High density polythylene/ poly propylene 10 lit. (full flush) capacity controlled low level flushing cistern with fittings	each	1.00	550.00	550.00
9977	Carriage of materials	L.S.	5.20	2.12	11.02
	LABOUR				
	(Considering 1 fitter and 1 beldar can fix 8 cistern in one day)				
0116	Fitter (grade 1)	day	0.125	784.00	98.00
0114	Beldar	day	0.125	645.00	80.63
	TOTAL				739.65 W
	Add 1 % Water charges on "W"				7.40
	TOTAL				747.05 X
	Add GST on "X" (multiplying factor 0.1405)				104.96
	TOTAL				852.01 Y
	Add 15% CPOH on "Y"				127.80
	TOTAL				979.81 Z
	Add Cess @ 1% on "Z"				9.80
	Cost of each				989.60
	Say				989.60
	FOR DPA 30% LESS				**692.72**

17.19 Providing and fixing controlled flush, low level cistern made of vitreous china with all fittings complete.

17.19.1 10 litre (full flush) capacity-white

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7126	White Vitreous china 10 lit. (full flush) capacity controlled low level flushing cistern with all fittings	each	1.00	700.00	700.00
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1443.16 W
	Add 1 % Water charges on "W"				14.43
	TOTAL				1457.59 X
	Add GST on "X" (multiplying factor 0.1405)				204.79
	TOTAL				1662.39 Y
	Add 15% CPOH on "Y"				249.36
	TOTAL				1911.74 Z
	Add Cess @ 1% on "Z"				19.12
	Cost of each				1930.86
	Say				1930.85
	FOR DPA 30% LESS				**1351.595**

17.19.2 10 litre (full flush) capacity-coloured

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7127	Coloured Vitreous china 10 lit. (full				

	flush) capacity controlled low level flushing cistern with all fittings	each	1.00	1150.00	1150.00
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1893.16 W
	Add 1 % Water charges on "W"				18.93
	TOTAL				1912.09 X
	Add GST on "X" (multiplying factor 0.1405)				268.65
	TOTAL				2180.74 Y
	Add 15% CPOH on "Y"				327.11
	TOTAL				2507.85 Z
	Add Cess @ 1% on "Z"				25.08
	Cost of each				2532.93
	Say				2532.95
	FOR DPA 30% LESS				**1773.065**

17.20 Providing and fixing solid plastic seat with lid for pedestal type W.C. pan complete :

17.20.1 White solid plastic seat with lid

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	410.00	410.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.12	28.39
	TOTAL				438.39 W
	Add 1 % Water charges on "W"				4.38
	TOTAL				442.77 X
	Add GST on "X" (multiplying factor 0.1405)				62.21
	TOTAL				504.98 Y
	Add 15% CPOH on "Y"				75.75
	TOTAL				580.73 Z
	Add Cess @ 1% on "Z"				5.81
	Cost of each				586.53
	Say				586.55
	FOR DPA 30% LESS				**410.585**

17.20.2 Black solid plastic seat with lid

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1876	Black plastic seat (solid) with lid C.P.brass hinges and rubber buffers	each	1.00	325.00	325.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.12	28.39
	TOTAL				353.39 W
	Add 1 % Water charges on "W"				3.53
	TOTAL				356.92 X
	Add GST on "X" (multiplying factor 0.1405)				50.15
	TOTAL				407.07 Y
	Add 15% CPOH on "Y"				61.06

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				468.13 Z
	Add Cess @ 1% on "Z"				4.68
	Cost of each				472.81
	Say				472.80
	FOR DPA 30% LESS				**330.96**

17.20.3 Coloured (other than black & white) solid plastic seat with lid

Code	Description	Unit	Quantity	Rate	Amount
7107	Details of cost for one no. MATERIAL Difference in cost of Coloured (other than black) solid P.V.C. seat in European W.C. pan	each	1.00	350.00	350.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9988	Carriage of materials and fixing charges	L.S.	13.39	2.12	28.39
	TOTAL				378.39 W
	Add 1 % Water charges on "W"				3.78
	TOTAL				382.17 X
	Add GST on "X" (multiplying factor 0.1405)				53.69
	TOTAL				435.87 Y
	Add 15% CPOH on "Y"				65.38
	TOTAL				501.25 Z
	Add Cess @ 1% on "Z"				5.01
	Cost of each				506.26
	Say				506.25
	FOR DPA 30% LESS				354.38

17.22 Providing and fixing G.I. inlet connection for flush pipe connecting with W.C. pan.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1614	G.I. inlet connection	each	1.00	70.00	70.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.12	28.39
	TOTAL				98.39 W
	Add 1 % Water charges on "W"				0.98
	TOTAL				99.37 X
	Add GST on "X" (multiplying factor 0.1405)				13.96
	TOTAL				113.33 Y
	Add 15% CPOH on "Y"				17.00
	TOTAL				130.33 Z
	Add Cess @ 1% on "Z"				1.30
	Cost of each				131.64
	Say				131.65
	FOR DPA 30% LESS				92.16

17.22A Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
7121	Bottle Trap	each	1.00	620.00	620.00
9988	Carriage and sundries	L.S.	20.00	2.12	42.40
	TOTAL				662.40 W

	Add 1 % Water charges on "W"				6.62
	TOTAL				669.02 X
	Add GST on "X" (multiplying factor 0.1405)				94.00
	TOTAL				763.02 Y
	Add 15% CPOH on "Y"				114.45
	TOTAL				877.48 Z
	Add Cess @ 1% on "Z"				8.77
	Cost of each				886.25
	Say				886.25
	FOR DPA 30% LESS				620.375

17.22B Providing and fixing CP Brass Single lever telephonic wall mixer of quality & make as approved by Engineer in charge.

(a) 15 mm nominal dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
7122	CP Brass Single lever telephonic wall mixer of approved make	each	1.00	4500.00	4500.00
9977	Carriage of material and fixing charges	L.S.	34.71	2.12	73.59
	TOTAL				4573.59 W
	Add 1 % Water charges on "W"				45.74
	TOTAL				4619.32 X
	Add GST on "X" (multiplying factor 0.1405)				649.01
	TOTAL				5268.34 Y
	Add 15% CPOH on "Y"				790.25
	TOTAL				6058.59 Z
	Add Cess @ 1% on "Z"				60.59
	Cost of each				6119.17
	Say				6119.15
	FOR DPA 30% LESS				**4283.405**

17.23 Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm or 340x410x265 mm sizes respectively.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1913	Vitreous china lipped front urinal	each	1.00	470.00	470.00
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	LABOUR				
0116	Fitter (grade 1)	day	0.38	784.00	297.92
0114	Beldar	day	0.38	645.00	245.10
	TOTAL				1033.14 W
	Add 1 % Water charges on "W"				10.33
	TOTAL				1043.47 X
	Add GST on "X" (multiplying factor 0.1405)				146.61
	TOTAL				1190.08 Y
	Add 15% CPOH on "Y"				178.51
	TOTAL				1368.59 Z
	Add Cess @ 1% on "Z"				13.69

	Cost of each				1382.28
	Say				1382.30
	FOR DPA 30% LESS				**967.61**

17.24 Providing and fixing white vitreous china squatting plate urinal with integral rim longitudinal flush pipe.

Code	Description	Unit	Quantity	Rate	Amount
1915	Details of cost for one no. MATERIAL Vitreous china squatting plate urinal	each	1.00	1053.00	1053.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Cement, sand and grit etc.	L.S.	10.79	2.12	22.87
9977	Carriage of materials	L.S.	13.39	2.12	28.39
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				2533.26 W
	Add 1 % Water charges on "W"				25.33
	TOTAL				2558.59 X
	Add GST on "X" (multiplying factor 0.1405)				359.48
	TOTAL				2918.08 Y
	Add 15% CPOH on "Y"				437.71
	TOTAL				3355.79 Z
	Add Cess @ 1% on "Z"				33.56
	Cost of each				3389.35
	Say				3389.35
		FOR DPA 30% LESS			2372.55

17.25 Providing and fixing white vitreous china wash basin including making all connections but excluding the cost of fittings :

17.25.1 Flat back wash basin of size 630x450 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1947	Vitreous china flat back wash basin 630x450 mm	each	1.00	725.00	725.00
9999	Fixing charges	L.S.	53.82	2.12	114.10
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	TOTAL				859.22 W
	Add 1 % Water charges on "W"				8.59
	TOTAL				867.81 X
	Add GST on "X" (multiplying factor 0.1405)				121.93
	TOTAL				989.74 Y
	Add 15% CPOH on "Y"				148.46
	TOTAL				1138.20 Z
	Add Cess @ 1% on "Z"				11.38
	Cost of each				1149.58
	Say				1149.60
	FOR DPA 30% LESS				804.72

17.25.2 Flat back wash basin of size 550x400 mm

Code	Description	Unit	Quantity	Rate	Amount

3229 9999	Details of cost for one no. MATERIAL Vitreous china flat back wash basin 550x400 mm	each L.S.	1.00 53.82	550.00 2.12	550.00 114.10
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	TOTAL				684.22 W
	Add 1 % Water charges on "W"				6.84
	TOTAL				691.06 X
	Add GST on "X" (multiplying factor 0.1405)				97.09
	TOTAL				788.15 Y
	Add 15% CPOH on "Y"				118.22
	TOTAL				906.38 Z
	Add Cess @ 1% on "Z"				9.06
	Cost of each				915.44
	Say				915.45
	FOR DPA 30% LESS				640.815

17.25.3 Angle back wash basin of size 600x480 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1949	Vitreous china angle back wash basin 600x480 mm	each	1.00	725.00	725.00
9999	Fixing charges	L.S.	53.82	2.12	114.10
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	TOTAL				859.22 W
	Add 1 % Water charges on "W"				8.59
	TOTAL				867.81 X
	Add GST on "X" (multiplying factor 0.1405)				121.93
	TOTAL				989.74 Y
	Add 15% CPOH on "Y"				148.46
	TOTAL				1138.20 Z
	Add Cess @ 1% on "Z"				11.38
	Cost of each				1149.58
	Say				1149.60
	FOR DPA 30% LESS				**804.72**

17.25.4 Angle back wash basin of size 400x400 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1950	Vitreous china angle back wash basin 400x400 mm	each	1.00	425.00	425.00
9999	Fixing charges	L.S.	53.82	2.12	114.10
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	TOTAL				559.22 W
	Add 1 % Water charges on "W"				5.59
	TOTAL				564.81 X
	Add GST on "X" (multiplying factor 0.1405)				79.36
	TOTAL				644.17 Y
	Add 15% CPOH on "Y"				96.62

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				740.79 Z
	Add Cess @ 1% on "Z"				7.41
	Cost of each				748.20
	Say				748.20
	FOR DPA 30% LESS				**523.74**

17.25.5 Flat back wash basin of size 450x300 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7004	Vitreous china flat back wash basin 450x300 mm	each	1.00	280.00	280.00
9999	Fixing charges	L.S.	53.82	2.12	114.10
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	TOTAL				414.22 W
	Add 1 % Water charges on "W"				4.14
	TOTAL				418.36 X
	Add GST on "X" (multiplying factor 0.1405)				58.78
	TOTAL				477.14 Y
	Add 15% CPOH on "Y"				71.57
	TOTAL				548.71 Z
	Add Cess @ 1% on "Z"				5.49
	Cost of each				554.20
	Say				554.20
	FOR DPA 30% LESS				387.94

17.25.6 Surgeon type wash basin of size 660x460 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3213	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1.00	1100.00	1100.00
9999	Fixing charges	L.S.	53.82	2.12	114.10
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	TOTAL				1234.22 W
	Add 1 % Water charges on "W"				12.34
	TOTAL				1246.56 X
	Add GST on "X" (multiplying factor 0.1405)				175.14
	TOTAL				1421.70 Y
	Add 15% CPOH on "Y"				213.26
	TOTAL				1634.96 Z
	Add Cess @ 1% on "Z"				16.35
	Cost of each				1651.31
	Say				1651.30
	FOR DPA 30% LESS				1155.91

17.26 Providing and fixing kitchen sink including making all connections excluding cost of fittings.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1863	Fire clay kitchen sink: 600x450x250 mm	each	1.00	1300.00	1300.00
9999	Fixing charges	L.S.	40.43	2.12	85.71

Code	Description	Unit	Quantity	Rate	Amount
9977	Carriage of materials	L.S.	10.79	2.12	22.87
	TOTAL				1408.59 W
	Add 1 % Water charges on "W"				14.09
	TOTAL				1422.67 X
	Add GST on "X" (multiplying factor 0.1405)				199.89
	TOTAL				1622.56 Y
	Add 15% CPOH on "Y"				243.38
	TOTAL				1865.94 Z
	Add Cess @ 1% on "Z"				18.66
	Cost of each				1884.60
	Say				1884.60
	FOR DPA 30% LESS				1319.22

17.27 Providing and fixing white vitreous china laboratory sink including making all connections excluding cost of fittings :

17.27.1 Size 450x300x150 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1871	White vitreous china laboratry sink 450x300x150 mm	each	1.00	1500.00	1500.00
9999	Fixing charges	L.S.	40.43	2.12	85.71
9977	Carriage of materials	L.S.	10.79	2.12	22.87
	TOTAL				1608.59 W
	Add 1 % Water charges on "W"				16.09
	TOTAL				1624.67 X
	Add GST on "X" (multiplying factor 0.1405)				228.27
	TOTAL				1852.94 Y
	Add 15% CPOH on "Y"				277.94
	TOTAL				2130.88 Z
	Add Cess @ 1% on "Z"				21.31
	Cost of each				2152.19
	Say				2152.20
	FOR DPA 30% LESS				**1506.54**

17.27.2 Size 600x450x200 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
1872	White vitreous china laboratry sink 600x450x200 mm	each	1.00	2500.00	2500.00
9999	Fixing charges	L.S.	40.43	2.12	85.71
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9977	Carriage of materials	L.S.	10.79	2.12	22.87
	TOTAL				2608.59 W
	Add 1 % Water charges on "W"				26.09
	TOTAL				2634.67 X
	Add GST on "X" (multiplying factor 0.1405)				370.17
	TOTAL				3004.84 Y
	Add 15% CPOH on "Y"				450.73
	TOTAL				3455.57 Z
	Add Cess @ 1% on "Z"				34.56
	Cost of each				3490.13

	Say				3490.15
	FOR DPA 30% LESS				2443.11

17.28 Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.

17.28.1 Semi rigid pipe

17.28.1.1 32 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7117	Semi Rigid PVC waste pipe for sink and wash basin 32 mm dia with length not less than 700 mm i/c PVC waste fittings	each	1.00	25.00	25.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				67.99 W
	Add 1 % Water charges on "W"				0.68
	TOTAL				68.67 X
	Add GST on "X" (multiplying factor 0.1405)				9.65
	TOTAL				78.32 Y
	Add 15% CPOH on "Y"				11.75
	TOTAL				90.07 Z
	Add Cess @ 1% on "Z"				0.90
	Cost of each				90.97
	Say				90.95
	FOR DPA 30% LESS				63.67

17.28.1.2 40 mm dia

Code	Description	Unit	Quantity	Rate	Amount
7118	Details of cost for one no. MATERIAL Semi Rigid PVC waste pipe for sink and wash basin 40 mm dia with length not less than 700 mm i/c PVC waste fittings	each	1.00	33.00	33.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				75.99 W
	Add 1 % Water charges on "W"				0.76
	TOTAL				76.75 X
	Add GST on "X" (multiplying factor 0.1405)				10.78
	TOTAL				87.54 Y
	Add 15% CPOH on "Y"				13.13
	TOTAL				100.67 Z
	Add Cess @ 1% on "Z"				1.01
	Cost of each				101.67
	Say				101.65
	FOR DPA 30% LESS				71.16

17.28.2 Flexible pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7119	Flexible (coil shaped) PVC waste pipe				

	for sink and wash basin 32 mm dia with length not less than 700 mm i/c PVC waste fittings	each	1.00	35.00	35.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				77.99 W
	Add 1 % Water charges on "W"				0.78
	TOTAL				78.77 X
	Add GST on "X" (multiplying factor 0.1405)				11.07
	TOTAL				89.84 Y
	Add 15% CPOH on "Y"				13.48
	TOTAL				103.32 Z
	Add Cess @ 1% on "Z"				1.03
	Cost of each				104.35
	Say				104.35
		FOR DPA 30% LESS			73.05

17.28.2.2 40 mm dia

Code	Description	Unit	Quantity	Rate	Amount
7120	Details of cost for one no. MATERIAL Flexible (coil shaped) PVC waste pipe for sink and wash basin 40 mm dia with length not less than 700 mm i/c PVC waste fittings	each	1.00	35.00	35.00

17.29 Providing and fixing 100 mm sand cast Iron grating for gully trap.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1369	S.C.I. gully or nahani grating 100 mm dia	each	1.00	25.00	25.00
9988	Carriage of materials and fixing charges	L.S.	4.16	2.12	8.82
	TOTAL				33.82 W
	Add 1 % Water charges on "W"				0.34
	TOTAL				34.16 X

	Add GST on "X" (multiplying factor 0.1405)				4.80
	TOTAL				38.96 Y
	Add 15% CPOH on "Y"				5.84
	TOTAL				44.80 Z
	Add Cess @ 1% on "Z"				0.45
	Cost of each				45.25
	Say				45.25
	FOR DPA 30% LESS				**31.675**

17.30 Providing and fixing in position 25 mm diameter mosquito proof coupling of approved municipal design.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1350	Mosquito proof coupling of approved design	each	1.00	30.00	30.00
9988	Carriage of materials and fixing charges	L.S.	1.82	2.12	3.86
	TOTAL				33.86 W
	Add 1 % Water charges on "W"				0.34
	TOTAL				34.20 X
	Add GST on "X" (multiplying factor 0.1405)				4.80
	TOTAL				39.00 Y
	Add 15% CPOH on "Y"				5.85
	TOTAL				44.85 Z
	Add Cess @ 1% on "Z"				0.45
	Cost of each				45.30
	Say				45.30
	FOR DPA 30% LESS				**31.71**

17.31 Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1392	Mirror of superior make glass 60x45 cm	each	1.00	450.00	450.00
7116	Hard board 6 mm thick	sqm	0.27	115.00	31.05
	600x450 mm Wooden cleats				
8.23	Rate as per item no 8.23 of SH : Cladding work	each	4.00	35.50	142.00 A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.04	180.00	7.20
9977	Carriage of materials	L.S.	4.16	2.12	8.82
9999	Sundries	L.S.	1.43	2.12	3.03
	LABOUR				
0112	Carpenter 2nd class	day	0.33	714.00	235.62
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				1090.57 W
	Add 1 % Water charges on "W-A"				9.49
	TOTAL				1100.06 X
	Add GST on "X-A" (multiplying factor 0.1405)				134.61

	TOTAL				1234.66 Y
	Add 15% CPOH on "Y-A"				163.90
	TOTAL				1398.56 Z
	Add Cess @ 1% on "Z-A"				12.57
	Cost of each				1411.13
	Say				1411.15
	FOR DPA 30% LESS				**987.805**

17.32 Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :

17.32.1 Circular shape 450 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7112	Circular shape 450 mm dia Mirror with				
	Plastic moulded frame	each	1.00	400.00	400.00
	Hard board 0.45x0.45 = 0.2025 sqm				
	Add wastage @ 10% = 0.0203 sqm				
	= 0.2228 sqm say 0.22sqm				
7116	Hard board 6 mm thick	sqm	0.22	115.00	25.30
7048	Rawl plug 50 mm (designation 10 no.)	each	2.00	22.00	44.00
0588	Chromium plated Brass screws 25 mm	100 Nos	0.02	180.00	3.60
9999	Sundries	L.S.	1.43	2.12	3.03
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.33	714.00	235.62

Code	Description	Unit	Quantity	Rate	Amount
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				933.22 W
	Add 1 % Water charges on "W"				9.33
	TOTAL				942.55 X
	Add GST on "X" (multiplying				
	factor 0.1405)				132.43
	TOTAL				1074.98 Y
	Add 15% CPOH on "Y"				161.25
	TOTAL				1236.23 Z
	Add Cess @ 1% on "Z"				12.36
	Cost of each				1248.59
	Say				1248.60
		FOR DPA 30% LESS			874.02

17.32.2 Rectangular shape 453x357 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7113	Rectangular shape 453x357 mm				
	Mirror with Plastic moulded frame	each	1.00	290.00	290.00
	Hard board 0.453x0.357 = 0.1617 sqm				
	Add wastage @ 10% = 0.0162 sqm				
	= 0.1779 sqm say 0.18 sqm				

7116	Hard board 6 mm thick	sqm	0.18	115.00	20.70
7048	Rawl plug 50 mm (designation 10 no.)	each	4.00	22.00	88.00
0588	Chromium plated Brass screws 25 mm	100 Nos	0.04	180.00	7.20
9999	Sundries	L.S.	1.43	2.12	3.03
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.33	714.00	235.62
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				866.22 W
	Add 1 % Water charges on "W"				8.66
	TOTAL				874.88 X
	Add GST on "X" (multiplying factor 0.1405)				122.92
	TOTAL				997.80 Y
	Add 15% CPOH on "Y"				149.67
	TOTAL				1147.47 Z
	Add Cess @ 1% on "Z"				11.47
	Cost of each				1158.95
	Say				1158.95
		FOR DPA 30% LESS			811.27

17.32.3 Oval shape 450x350 mm (outer dimensions)

Code	Description	Unit	Quantity	Rate	Amount
7114	Details of cost for one no. MATERIAL	each	1.00	290.00	290.00
	Hard board 0.45x0.35=0.1575 sqm				
	Add wastage @ 10% = 0.0158 sqm				
	= 0.1733 sqm say 0.17 sqm				
7116	Hard board 6 mm thick	sqm	0.17	115.00	19.55
7048	Rawl plug 50 mm (designation 10 no.)	each	4.00	22.00	88.00
0588	Chromium plated Brass screws 25 mm	100 Nos	0.04	180.00	7.20
9999	Sundries	L.S.	1.43	2.12	3.03
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.33	714.00	235.62
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				865.07 W
	Add 1 % Water charges on "W"				8.65
	TOTAL				873.72 X
	Add GST on "X" (multiplying factor 0.1405)				122.76
	TOTAL				996.48 Y
	Add 15% CPOH on "Y"				149.47
	TOTAL				1145.95 Z
	Add Cess @ 1% on "Z"				11.46
	Cost of each				1157.41
	Say				1157.40
		FOR DPA 30% LESS			810.18

17.32.4 Rectangular shape 1500x450 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7115	Rectangular shape 1500x450 mm				
	Mirror with Plastic moulded frame	each	1.00	670.00	670.00

	Hard board 1.50x0.45 = 0.675 sqm				
	Add wastage @ 10% = 0.0675 sqm				
	= 0.7425 sqm say 0.74sqm				
7116	Hard board 6 mm thick	sqm	0.74	115.00	85.10
7048	Rawl plug 50 mm (designation 10 no.)	each	6.00	22.00	132.00
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	180.00	10.80
9999	Sundries	L.S.	1.43	2.12	3.03
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.33	714.00	235.62
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				1358.22 W
	Add 1 % Water charges on "W"				13.58
	TOTAL				1371.80 X
	Add GST on "X" (multiplying factor 0.1405)				192.74
	TOTAL				1564.54 Y
	Add 15% CPOH on "Y"				234.68
	TOTAL				1799.22 Z
	Add Cess @ 1% on "Z"				17.99
	Cost of each				1817.21
	Say				1817.20
	FOR DPA 30% LESS				**1272.04**

17.33 Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3228	600x120 mm glass shelf with anodised aluminium angle frame, C.P. brass brackets and guard rail of standard size	each	1.00	300.00	300.00
7048	Rawl plug 50 mm (designation 10 no.)	each	2.00	22.00	44.00
0586	Chromium plated Brass screws 40 mm	100 Nos	0.04	290.00	11.60
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.25	714.00	178.50
0114	Beldar	day	0.25	645.00	161.25
	TOTAL				704.17 W
	Add 1 % Water charges on "W"				7.04
	TOTAL				711.21 X
	Add GST on "X" (multiplying factor 0.1405)				99.93
	TOTAL				811.14 Y
	Add 15% CPOH on "Y"				121.67
	TOTAL				932.81 Z
	Add Cess @ 1% on "Z"				9.33
	Cost of each				942.13
	Say				942.15

	FOR DPA 30% LESS				**659.51**

17.34 Providing and fixing toilet paper holder :

17.34.1 C.P. brass

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1889	C.P.brass toilet paper holder of standard size	each	1.00	280.00	280.00
	Wooden cleats				
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	35.50	71.00 A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.02	180.00	3.60
9977	Carriage of materials	L.S.	4.29	2.12	9.09
	LABOUR				
0112	Carpenter 2nd class	day	0.12	714.00	85.68
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				526.77 W
	Add 1 % Water charges on "W-A"				4.56
	TOTAL				531.33 X
	Add GST on "X-A" (multiplying factor 0.1405)				64.68
	TOTAL				596.01 Y
	Add 15% CPOH on "Y-A"				78.75
	TOTAL				674.76 Z
	Add Cess @ 1% on "Z-A"				6.04
	Cost of each				680.80
	Say				680.80
	FOR DPA 30% LESS				**476.56**

17.34.2 Vitreous china

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of one no.				
	MATERIAL				
3749	Vitreous china toilet paper holder of standard size	each	1.00	110.00	110.00
	Wooden cleats				
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	35.50	71.00 A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	180.00	10.80
9977	Carriage of materials	L.S.	4.29	2.12	9.09
	LABOUR				
0112	Carpenter 2nd class	day	0.12	714.00	85.68
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				363.97 W
	Add 1 % Water charges on "W-A"				2.93
	TOTAL				366.90 X
	Add GST on "X-A" (multiplying factor 0.1405)				41.57
	TOTAL				408.48 Y
	Add 15% CPOH on "Y-A"				50.62
	TOTAL				459.10 Z
	Add Cess @ 1% on "Z-A"				3.88

	Cost of each				462.98
	Say				463.00
	FOR DPA 30% LESS				**324.1**

17.35 Providing and fixing soil, waste and vent pipes :

17.35.1 100 mm dia

17.35.1.1 Sand cast iron S&S pipe as per IS: 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 17.37 m				
	(1.8mx10)-(9x0.07m) = 17.37 m				
	MATERIAL				
1617	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100mm dia	each	10.50	1135.00	11917.50
9999	Scaffolding	L.S.	80.73	2.12	171.15
9977	Carriage of materials	L.S.	53.82	2.12	114.10
	LABOUR				
0116	Fitter (grade 1)	day	0.42	784.00	329.28
0100	Bandhani	day	0.21	714.00	149.94
0114	Beldar	day	0.83	645.00	535.35
	TOTAL				13217.32 W
	Add 1 % Water charges on "W"				132.17
	TOTAL				13349.49 X
	Add GST on "X" (multiplying factor 0.1405)				1875.60
	TOTAL				15225.09 Y
	Add 15% CPOH on "Y"				2283.76
	TOTAL				17508.86 Z
	Add Cess @ 1% on "Z"				175.09
	Cost for 17.37 m pan				17683.94
	Cost per metre				1018.07
	Say				1018.05
	FOR DPA 30% LESS				**712.64**

17.35.1.2 Sand cast iron S&S pipe as per IS: 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 16.87 m				
	(1.75mx10)-(9x0.07m) = 16.87 m				
	MATERIAL				
3620	C.C.I.(spun) socketed soil, waste and vent pipe 1.80 metres long:100mm dia	each	10.50	1170.00	12285.00
9999	Scaffolding	L.S.	80.73	2.12	171.15
9977	Carriage of materials	L.S.	53.82	2.12	114.10
	LABOUR				
0116	Fitter (grade 1)	day	0.42	784.00	329.28
0100	Bandhani	day	0.21	714.00	149.94
0114	Beldar	day	0.83	645.00	535.35
	TOTAL				13584.82 W
	Add 1 % Water charges on "W"				135.85
	TOTAL				13720.66 X
	Add GST on "X" (multiplying factor 0.1405)				1927.75
	TOTAL				15648.42 Y
	Add 15% CPOH on "Y"				2347.26

	TOTAL				17995.68 Z
	Add Cess @ 1% on "Z"				179.96
	Cost for 16.87 m pan				18175.64
	Cost per metre				1077.39
	Say				1077.40
	FOR DPA 30% LESS				**754.18**

17.35.1.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 18.00 m (6 x 3.00 m)				
	MATERIAL				
7621	Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 100 mm dia (3000 mm length pipe) i/c (3% wastage)	metre	18.54	700.00	12978.00
9999	Scaffolding	L.S.	80.73	2.12	171.15
9977	Carriage of materials	L.S.	53.82	2.12	114.10
	LABOUR				
0116	Fitter (grade 1)	day	0.42	784.00	329.28
0100	Bandhani	day	0.21	714.00	149.94
0114	Beldar	day	0.83	645.00	535.35
	TOTAL				14277.82 W
	Add 1 % Water charges on "W"				142.78
	TOTAL				14420.59 X
	Add GST on "X" (multiplying factor 0.1405)				2026.09
	TOTAL				16446.69 Y
	Add 15% CPOH on "Y"				2467.00
	TOTAL				18913.69 Z
	Add Cess @ 1% on "Z"				189.14
	Cost of 18.00 metre				19102.83
	Cost of 1 metre				1061.27
	Say				1061.25
	FOR DPA 30% LESS				**742.875**

17.35.2 75 mm diameter :

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 17.42 m (1.8mx10)-(9x0.065m) = 17.415 m say 17.42 m				
	MATERIAL				
1616	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 75mm dia	each	10.50	1050.00	11025.00
9999	Scaffolding	L.S.	80.73	2.12	171.15
9977	Carriage of materials	L.S.	40.38	2.12	85.61
	LABOUR				
0116	Fitter (grade 1)	day	0.35	784.00	274.40
0100	Bandhani	day	0.17	714.00	121.38
0114	Beldar	day	0.70	645.00	451.50
	TOTAL				12129.03 W
	Add 1 % Water charges on "W"				121.29

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				12250.32 X
	Add GST on "X" (multiplying factor 0.1405)				1721.17
	TOTAL				13971.49 Y
	Add 15% CPOH on "Y"				2095.72
	TOTAL				16067.22 Z
	Add Cess @ 1% on "Z"				160.67
	Cost for 17.42 m pan				16227.89
	Cost per metre				931.57
	Say				931.55
	FOR DPA 30% LESS				**652.09**

17.35.2.2 Centrifugally cast (spun) iron socketed pipe as per IS: 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 16.92 m (1.75mx10)-(9x0.065m) = 16.915 m. say 16.92 m				
	MATERIAL				
3621	C.C.I.(spun) socketed soil, waste and vent pipe 1.80 metres long:75mm dia including 5% allowance for wastage	each	10.50	1150.00	12075.00
9999	Scaffolding	L.S.	80.73	2.12	171.15
9977	Carriage of materials	L.S.	40.38	2.12	85.61
	LABOUR				
0116	Fitter (grade 1)	day	0.35	784.00	274.40
0100	Bandhani	day	0.17	714.00	121.38
0114	Beldar	day	0.70	645.00	451.50
	TOTAL				13179.03 W
	Add 1 % Water charges on "W"				131.79
	TOTAL				13310.82 X
	Add GST on "X" (multiplying factor 0.1405)				1870.17
	TOTAL				15180.99 Y
	Add 15% CPOH on "Y"				2277.15
	TOTAL				17458.14 Z
	Add Cess @ 1% on "Z"				174.58
	Cost for 16.92 m pan				17632.72
	Cost per metre				1042.12
	Say				1042.10
	FOR DPA 30% LESS				**729.47**

17.35.2.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 18.00 m (6 x 3.00 m)				
	MATERIAL				
7622	Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 75 mm dia (3000 mm length pipe) i/c (3% wastage)	metre	18.54	570.00	10567.80
9999	Scaffolding	L.S.	80.73	2.12	171.15
9977	Carriage of materials	L.S.	40.38	2.12	85.61
	LABOUR				
0116	Fitter (grade 1)	day	0.35	784.00	274.40

0100	Bandhani	day	0.17	714.00	121.38
0114	Beldar	day	0.70	645.00	451.50
	TOTAL				11671.83 W
	Add 1 % Water charges on "W"				116.72
	TOTAL				11788.55 X
	Add GST on "X" (multiplying factor 0.1405)				1656.29
	TOTAL				13444.84 Y
	Add 15% CPOH on "Y"				2016.73
	TOTAL				15461.57 Z
	Add Cess @ 1% on "Z"				154.62
	Cost of 18.00 metre				15616.19
	Cost of 1 metre				867.57
	Say				867.55
	FOR DPA 30% LESS				**607.285**

17.36 Providing and filling the joints with spun yarn, cement slurry and cement mortar 1:2 (1 cement : 2 fine sand) in S.C.I./ C.I. Pipes :

17.36.1 75 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 4 joints				
	MATERIAL				
9999	Cement mortar, spun yarn etc.	L.S.	6.89	2.12	14.61
	LABOUR				
0116	Fitter (grade 1)	day	0.28	784.00	219.52
0114	Beldar	day	0.28	645.00	180.60
	TOTAL				414.73 W
	Add 1 % Water charges on "W"				4.15
	TOTAL				418.87 X
	Add GST on "X" (multiplying factor 0.1405)				58.85
	TOTAL				477.73 Y
	Add 15% CPOH on "Y"				71.66
	TOTAL				549.38 Z
	Add Cess @ 1% on "Z"				5.49
	Cost of 4 joints				554.88
	Cost of 1 joint				138.72
	Say				138.70
	FOR DPA 30% LESS				**97.09**

17.36.2 100 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 4 joints				
	MATERIAL				
9999	Cement mortar, spun yarn etc.	L.S.	8.06	2.12	17.09
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				488.66 W
	Add 1 % Water charges on "W"				4.89
	TOTAL				493.54 X
	Add GST on "X" (multiplying factor 0.1405)				69.34

	TOTAL				562.89 Y
	Add 15% CPOH on "Y"				84.43
	TOTAL				647.32 Z
	Add Cess @ 1% on "Z"				6.47
	Cost of 4 joints				653.79
	Cost of 1 joint				163.45
	Say				163.45
	FOR DPA 30% LESS				**114.415**

17.37 Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including cost of cutting holes and making good the walls etc. :

17.37.1 For 100 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 nos.				
	MATERIAL				
1331	M.S.Holder bat clamp of approved design for 100 mm S.C.I. pipe	each	5.00	30.00	150.00
9977	Carriage of bat clamps	L.S.	2.47	2.12	5.24
	LABOUR				
0116	Fitter (grade 1)	day	0.125	784.00	98.00
0124	Mason (brick layer) 2nd class	day	0.75	714.00	535.50
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	7.15	2.12	15.16
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.0033	1400.00	4.62
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.0011	1350.00	1.49
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.0044	163.93	0.72
0982	Coarse sand (zone III)	cum	0.0022	1500.00	3.30
2203	Carriage of Coarse sand	cum	0.0022	163.93	0.36
0367	Portland Cement (OPC-43 grade)	tonne	0.0016	5000.00	8.00
2209	Carriage of Cement	tonne	0.0016	145.72	0.23
0114	Beldar	day	0.0045	645.00	2.90
0115	Coolie	day	0.0032	645.00	2.06
0101	Bhisti	day	0.0014	714.00	1.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0123	Mason (brick layer) 1st class	day	0.0003	784.00	0.24
0124	Mason (brick layer) 2nd class	day	0.0003	714.00	0.21
0128	Mate	day	0.0002	714.00	0.14
9999	Hire charges of machine etc.	L.S.	0.26	2.12	0.55
9999	Sundries	L.S.	0.13	2.12	0.28
9999	Sundries	L.S.	0.13	2.12	0.28
	TOTAL				1152.78 W
	Add 1 % Water charges on "W"				11.53
	TOTAL				1164.30 X
	Add GST on "X" (multiplying factor 0.1405)				163.58
	TOTAL				1327.89 Y
	Add 15% CPOH on "Y"				199.18

	TOTAL				1527.07 Z
	Add Cess @ 1% on "Z"				15.27
	Cost of 5.00 bat clamps				1542.34
	Cost of each				308.47
	Say				308.45
	FOR DPA 30% LESS				**215.92**

17.37.2 For 75 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 nos.				
	MATERIAL				
1332	M.S.Holder bat clamp of approved design for75 mm S.C.I. pipe	each	5.00	27.00	135.00
9977	Carriage of bat clamps	L.S.	2.47	2.12	5.24
	LABOUR				
0116	Fitter (grade 1)	day	0.125	784.00	98.00
0124	Mason (brick layer) 2nd class	day	0.75	714.00	535.50
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	7.15	2.12	15.16
	C.C. Black 5x0.1x0.1x0.1 = 0.005 cum				
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.0033	1400.00	4.62
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.0011	1350.00	1.49
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.0044	163.93	0.72
0982	Coarse sand (zone III)	cum	0.0022	1500.00	3.30
2203	Carriage of Coarse sand	cum	0.0022	163.93	0.36
0367	Portland Cement (OPC-43 grade)	tonne	0.0016	5000.00	8.00
2209	Carriage of Cement	tonne	0.0016	145.72	0.23
0114	Beldar	day	0.0045	645.00	2.90
0115	Coolie	day	0.0032	645.00	2.06
0101	Bhisti	day	0.0014	714.00	1.00
0123	Mason (brick layer) 1st class	day	0.0003	784.00	0.24
0124	Mason (brick layer) 2nd class	day	0.0003	714.00	0.21
0128	Mate	day	0.0002	714.00	0.14
9999	Hire charges of machine etc.	L.S.	0.26	2.12	0.55
9999	Sundries	L.S.	0.13	2.12	0.28
9999	Sundries	L.S.	0.13	2.12	
	TOTAL				1137.78 W
	Add 1 % Water charges on “W”				11.38
	TOTAL				1149.15 X
	Add GST on “X” (multiplying factor 0.1405)				161.46
	TOTAL				1310.61 Y
	Add 15% CPOH on “Y”				196.59
	TOTAL				1507.20 Z
	Add Cess @ 1% on “Z”				15.07
	Cost of 5.00 bat clamps				1522.27
	Cost of each				304.45
	Say				304.45
	FOR DPA 30% LESS				213.115

17.38 Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.

17.38.1 100 mm dia

17.38.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1625	S.C.I. bend with access door 100mm dia	each	1.00	350.00	350.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				396.66 W
	Add 1 % Water charges on "W"				3.97
	TOTAL				400.63 X
	Add GST on "X" (multiplying factor 0.1405)				56.29
	TOTAL				456.92 Y
	Add 15% CPOH on "Y"				68.54
	TOTAL				525.46 Z
	Add Cess @ 1% on "Z"				5.25
	Cost of each				530.71
	Say				530.70
	FOR DPA 30% LESS				**371.49**

17.38.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
3624	S.C.I. S&S bends with access door 100mm dia	each	1.00	400.00	400.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				446.66 W
	Add 1 % Water charges on "W"				4.47
	TOTAL				451.13 X
	Add GST on "X" (multiplying factor 0.1405)				63.38
	TOTAL				514.51 Y
	Add 15% CPOH on "Y"				77.18
	TOTAL				591.69 Z
	Add Cess @ 1% on "Z"				5.92
	Cost of each				597.61
	Say				597.60
	FOR DPA 30% LESS				**418.32**

17.38.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7639	Hubless centrifugally cast (spun) iron bend with access door - 100 mm dia as per IS IS:15905	each	1.00	365.00	365.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00

Code	Description	Unit	Quantity	Rate	Amount
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				411.66 W
	Add 1 % Water charges on "W"				4.12
	TOTAL				415.78 X
	Add GST on "X" (multiplying factor 0.1405)				58.42
	TOTAL				474.20 Y
	Add 15% CPOH on "Y"				71.13
	TOTAL				545.33 Z
	Add Cess @ 1% on "Z"				5.45
	Cost of each				550.78
	Say				550.80
	FOR DPA 30% LESS				**385.56**

17.38.2 75 mm dia

17.38.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
1624	S.C.I. bend with access door 75mm dia	each	1.00	290.00	290.00
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	16.00	16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				328.87 W
	Add 1 % Water charges on "W"				3.29
	TOTAL				332.16 X
	Add GST on "X" (multiplying factor 0.1405)				46.67
	TOTAL				378.83 Y
	Add 15% CPOH on "Y"				56.82
	TOTAL				435.66 Z
	Add Cess @ 1% on "Z"				4.36
	Cost of each				440.01
	Say				440.00
	FOR DPA 30% LESS				**308.00**

17.38.2.2 Sand cast iron S&S as per IS- 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3625	S.C.I. S&S bends with access door75mm dia	each	1.00	300.00	300.00
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	16.00	16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				338.87 W
	Add 1 % Water charges on "W"				3.39
	TOTAL				342.26 X
	Add GST on "X" (multiplying factor 0.1405)				48.09
	TOTAL				390.35 Y

Code	Description	Unit	Quantity	Rate	Amount
	Add 15% CPOH on "Y"				58.55
	TOTAL				448.90 Z
	Add Cess @ 1% on "Z"				4.49
	Cost of each				453.39
	Say				453.40
	FOR DPA 30% LESS				**317.38**

17.38.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no. MATERIAL				
7640	Hubless centrifugally cast (spun) iron bend with access door - 75 mm dia as per IS 15905	each	1.00	290.00	290.00
1373	including cost of bolts & nuts. Rubber insertions for 80 mm dia pipe joints 3mm thick		1.00	16.00	16.00
9977	Carriage of materials and fixing charges	each	1.79	2.12	22.87
	Add 1 % Water charges on "W"				
	TOTAL				328.87 W
	Add GST on "X" (multiplying factor 0.1405)				3.29
	TOTAL				332.16 X
	Add 15% CPOH on "Y"				46.67
	TOTAL				378.83 Y
	Add Cess @ 1% on "Z"				56.82
	Cost of each				435.66 Z
	Say				440.00
	FOR DPA 30% LESS				**308.00**

17.39 Providing and fixing plain bend of required degree.

17.39.1 100 mm dia

17.39.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1621	S.C.I. plain bend 100 mm dia	each	1.00	280.00	280.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				308.66 W
	Add 1 % Water charges on "W"				3.09
	TOTAL				311.75 X
	Add GST on "X" (multiplying factor 0.1405)				43.80
	TOTAL				355.55 Y
	Add 15% CPOH on "Y"				53.33
	TOTAL				408.88 Z
	Add Cess @ 1% on "Z"				4.09
	Cost of each				412.97
	Say				412.95
	FOR DPA 30% LESS				**289.07**

17.39.1.2 Sand cast iron S&S as per IS : 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3628	S.C.I. S&S bend100mm dia	each	1.00	300.00	300.00

9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				328.66 W
	Add 1 % Water charges on "W"				3.29
	TOTAL				331.95 X
	Add GST on "X" (multiplying factor 0.1405)				46.64
	TOTAL				378.59 Y
	Add 15% CPOH on "Y"				56.79
	TOTAL				435.38 Z
	Add Cess @ 1% on "Z"				4.35
	Cost of each				439.73
	Say				439.75
	FOR DPA 30% LESS				**307.83**

17.39.1.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7623	Hubless centrifugally cast (spun) iron plain bend as per IS 15905- 100 mm dia	each	1.00	230.00	230.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				258.66 W
	Add 1 % Water charges on "W"				2.59
	TOTAL				261.25 X
	Add GST on "X" (multiplying factor 0.1405)				36.71
	TOTAL				297.95 Y
	Add 15% CPOH on "Y"				44.69
	TOTAL				342.65 Z
	Add Cess @ 1% on "Z"				3.43
	Cost of each				346.07
	Say				346.05
	FOR DPA 30% LESS				**242.235**

17.39.2 75 mm dia

17.39.2.1 Sand cast iron S&S as per IS -1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1620	S.C.I. plain bend 75 mm dia	each	1.00	210.00	210.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				232.87 W
	Add 1 % Water charges on "W"				2.33
	TOTAL				235.20 X
	Add GST on "X" (multiplying factor 0.1405)				33.05
	TOTAL				268.25 Y
	Add 15% CPOH on "Y"				40.24
	TOTAL				308.49 Z
	Add Cess @ 1% on "Z"				3.08
	Cost of each				311.57

	Say				311.55
	FOR DPA 30% LESS				**218.085**

17.39.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
3629	Details of cost for one no. MATERIAL S.C.I. S&S bend75mm dia	each	1.00	200.00	200.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				222.87 W
	Add 1 % Water charges on "W"				2.23
	TOTAL				225.10 X
	Add GST on "X" (multiplying factor 0.1405)				31.63
	TOTAL				256.73 Y
	Add 15% CPOH on "Y"				38.51
	TOTAL				295.24 Z
	Add Cess @ 1% on "Z"				2.95
	Cost of each				298.19
	Say				298.20
	FOR DPA 30% LESS				**208.74**

17.39.2.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no. MATERIAL				
7624	Hubless centrifugally cast (spun) iron plain bend as per IS 15905 - 75 mm dia	each	1.00	160.00	160.00
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				182.87 W
	Add 1 % Water charges on "W"				1.83
	TOTAL				184.70 X
	Add GST on "X" (multiplying factor 0.1405)				25.95
	TOTAL				210.65 Y
	Add 15% CPOH on "Y"				31.60
	TOTAL				242.25 Z
	Add Cess @ 1% on "Z"				2.42
	Cost of each				244.68
	Say				244.70
	FOR DPA 30% LESS				**171.29**

17.40 Providing and fixing heel rest sanitary bend

17.40.1 100 mm dia

17.40.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
1667	Details of cost for one no. MATERIAL Sand cast iron heel rest bend 100mm dia	each	1.00	355.00	355.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				383.66 W
	Add 1 % Water charges on "W"				3.84
	TOTAL				387.50 X
	Add GST on "X" (multiplying factor 0.1405)				54.44

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				441.94 Y
	Add 15% CPOH on "Y"				66.29
	TOTAL				508.23 Z
	Add Cess @ 1% on "Z"				5.08
	Cost of each				513.32
	Say				513.30
	FOR DPA 30% LESS				**359.31**

17.40.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3634	S.C.I. S&S heel rest sanitary bend 100mm dia	each	1.00	300.00	300.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				328.66 W
	Add 1 % Water charges on "W"				3.29
	TOTAL				331.95 X
	Add GST on "X" (multiplying factor 0.1405)				46.64
	TOTAL				378.59 Y
	Add 15% CPOH on "Y"				56.79
	TOTAL				435.38 Z
	Add Cess @ 1% on "Z"				4.35
	Cost of each				439.73
	Say				439.75
	FOR DPA 30% LESS				**307.825**

17.40.2 75 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1666	Sand cast iron heel rest bend75mm dia	each	1.00	300.00	300.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				322.87 W
	Add 1 % Water charges on "W"				3.23
	TOTAL				326.10 X
	Add GST on "X" (multiplying factor 0.1405)				45.82
	TOTAL				371.92 Y
	Add 15% CPOH on "Y"				55.79
	TOTAL				427.71 Z
	Add Cess @ 1% on "Z"				4.28
	Cost of each				431.99
	Say				432.00
	Details of cost for one no.				
	MATERIAL				
3635	S.C.I. S&S heel rest sanitary bend 75mm dia	each	1.00	280.00	280.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				302.87 W
	Add 1 % Water charges on "W"				3.03
	TOTAL				305.90 X

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X" (multiplying factor 0.1405)				42.98
	TOTAL				348.88 Y
	Add 15% CPOH on "Y"				52.33
	TOTAL				401.22 Z
	Add Cess @ 1% on "Z"				4.01
	Cost of each				405.23
	Say				405.25
	FOR DPA 30% LESS				**283.68**

17.41 Providing and fixing double equal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete : 17.41.1 100x100x100x100 mm

17.41.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1637	S.C.I. double equal junctions 100x100x100x100 mm dia with access door.	each	1.00	730.00	730.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.12	28.39
	TOTAL				776.39 W
	Add 1 % Water charges on "W"				7.76
	TOTAL				784.15 X
	Add GST on "X" (multiplying factor 0.1405)				110.17
	TOTAL				894.32 Y
	Add 15% CPOH on "Y"				134.15
	TOTAL				1028.47 Z
	Add Cess @ 1% on "Z"				10.28
	Cost of each				1038.76
	Say				1038.75
	FOR DPA 30% LESS				**727.13**

17.41.1.2 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3654	S.C.I. S&S double equal junctions with access door 100x100x100x100 mm.	each	1.00	630.00	630.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.12	28.39
	TOTAL				676.39 W
	Add 1 % Water charges on "W"				6.76
	TOTAL				683.15 X
	Add GST on "X" (multiplying factor 0.1405)				95.98
	TOTAL				779.13 Y
	Add 15% CPOH on "Y"				116.87
	TOTAL				896.00 Z
	Add Cess @ 1% on "Z"				8.96

Code	Description	Unit	Quantity	Rate	Amount
	Cost of each				904.96
	Say				904.95
	FOR DPA 30% LESS				**633.47**

17.41.2 75x75x75x75 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1636	S.C.I. double equal junctions				
	75x75x75x75 mm dia with access door.	each	1.00	525.00	525.00
1373	Rubber insertions for 80 mm dia				
	pipe joints	each	1.00	16.00	16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				563.87 W
	Add 1 % Water charges on "W"				5.64
	TOTAL				569.51 X
	Add GST on "X" (multiplying				
	factor 0.1405)				80.02
	TOTAL				649.53 Y
	Add 15% CPOH on "Y"				97.43
	TOTAL				746.96 Z
	Add Cess @ 1% on "Z"				7.47
	Cost of each				754.43
	Say				754.45
	FOR DPA 30% LESS				**528.115**

17.41.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
3655 1373	S.C.I. S&S double equal junctions with access door 75x75x75x75 mm. Rubber insertions for 80 mm dia pipe joints	each each	1.00 1.00	500.00 16.00	500.00 16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				538.87 W
	Add 1 % Water charges on "W"				5.39
	TOTAL				544.26 X
	Add GST on "X" (multiplying				
	factor 0.1405)				76.47
	TOTAL				620.73 Y
	Add 15% CPOH on "Y"				93.11
	TOTAL				713.84 Z
	Add Cess @ 1% on "Z"				7.14
	Cost of each				720.98
	Say				721.00
	FOR DPA 30% LESS				**504.7**

17.42 Providing and fixing double equal plain junction of required degree. 17.42.1 100x100x100x100 mm
17.42.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1634	S.C.I. plain double equal junctions				
	100x100x100x100 mm dia	each	1.00	615.00	615.00

9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				643.66 W
	Add 1 % Water charges on "W"				6.44
	TOTAL				650.10 X
	Add GST on "X" (multiplying factor 0.1405)				91.34
	TOTAL				741.44 Y
	Add 15% CPOH on "Y"				111.22
	TOTAL				852.65 Z
	Add Cess @ 1% on "Z"				8.53
	Cost of each				861.18
	Say				861.20
	FOR DPA 30% LESS				**602.84**

17.42.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3650	S.C.I. S&S double equal junctions 100x100x100x100 mm	each	1.00	630.00	630.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				658.66 W
	Add 1 % Water charges on "W"				6.59
	TOTAL				665.25 X
	Add GST on "X" (multiplying factor 0.1405)				93.47
	TOTAL				758.72 Y
	Add 15% CPOH on "Y"				113.81
	TOTAL				872.52 Z
	Add Cess @ 1% on "Z"				8.73
	Cost of each				881.25
	Say				881.25
	FOR DPA 30% LESS				**616.88**

17.42.1.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7625	Hubless centrifugally cast (spun) iron double equal plain junction as per IS 15905 - 100x100x100x100 mm dia	each	1.00	510.00	510.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				538.66 W
	Add 1 % Water charges on "W"				5.39
	TOTAL				544.05 X
	Add GST on "X" (multiplying factor 0.1405)				76.44
	TOTAL				620.49 Y
	Add 15% CPOH on "Y"				93.07
	TOTAL				713.56 Z
	Add Cess @ 1% on "Z"				7.14
	Cost of each				720.70
	Say				720.70

	FOR DPA 30% LESS				**504.49**

17.42.2 75x75x75x75 mm

17.42.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1633	S.C.I. plain double equal junctions 75x75x75x75 mm dia	each	1.00	410.00	410.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				432.87 W
	Add 1 % Water charges on "W"				4.33
	TOTAL				437.20 X
	Add GST on "X" (multiplying factor 0.1405)				61.43
	TOTAL				498.63 Y
	Add 15% CPOH on "Y"				74.79
	TOTAL				573.43 Z
	Add Cess @ 1% on "Z"				5.73
	Cost of each				579.16
	Say				579.15
	FOR DPA 30% LESS				**405.405**

17.42.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
3651	Details of cost for one no. MATERIAL S.C.I. S&S double equal junctions 75x75x75x75 mm	each	1.00	470.00	470.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				492.87 W
	Add 1 % Water charges on "W"				4.93
	TOTAL				497.80 X
	Add GST on "X" (multiplying factor 0.1405)				69.94
	TOTAL				567.74 Y
	Add 15% CPOH on "Y"				85.16
	TOTAL				652.91 Z
	Add Cess @ 1% on "Z"				6.53
	Cost of each				659.44
	Say				659.45
	FOR DPA 30% LESS				**461.615**

17.42.2.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7626	Hubless centrifugally cast (spun) iron double equal plain junction as per IS 15905 - 75x75x75x75 mm dia	each	1.00	275.00	275.00
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				297.87 W
	Add 1 % Water charges on "W"				2.98
	TOTAL				300.85 X
	Add GST on "X" (multiplying				

	factor 0.1405)				42.27
	TOTAL				343.12 Y
	Add 15% CPOH on "Y"				51.47
	TOTAL				394.59 Z
	Add Cess @ 1% on "Z"				3.95
	Cost of each				398.54
	Say				398.55
	FOR DPA 30% LESS				**278.99**

17.43 Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.

17.43.1 100x100x100 mm

17.43.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
1631 1374	Details of cost for one no. MATERIAL S.C.I. single equal junctions 100x 100x100 mm dia with access door. Rubber insertions for 100 mm dia pipe joints	each each	1.00 1.00	455.00 18.00	455.00 18.00

17.43.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3644	S.C.I. S&S single equal junctions				
	with access door 100x100x100 mm	each	1.00	500.00	500.00
1374	Rubber insertions for 100 mm dia				
	pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				546.66 W
	Add 1 % Water charges on "W"				5.47
	TOTAL				552.13 X
	Add GST on "X" (multiplying				
	factor 0.1405)				77.57
	TOTAL				629.70 Y
	Add 15% CPOH on "Y"				94.46
	TOTAL				724.16 Z
	Add Cess @ 1% on "Z"				7.24
	Cost of each				731.40
	Say				731.40
	FOR DPA 30% LESS				**511.98**

17.43.2 75x75x75 mm

Code	Description	Unit	Quantity	Rate	Amount
1630 1373	Details of cost for one no. MATERIAL S.C.I. single equal junctions75x75x 75 mm dia with access door. Rubber insertions for 80 mm dia pipe joints	each each	1.00 1.00	390.00 16.00	390.00 16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				428.87 W
	Add 1 % Water charges on "W"				4.29
	TOTAL				433.16 X
	Add GST on "X" (multiplying				
	factor 0.1405)				60.86
	TOTAL				494.02 Y
	Add 15% CPOH on "Y"				74.10

	TOTAL				568.13 Z
	Add Cess @ 1% on "Z"				5.68
	Cost of each				573.81
	Say				573.80
	FOR DPA 30% LESS				**401.66**

17.43.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3645	S.C.I. S&S single equal junctions with access door 75x75x75 mm	each	1.00	390.00	390.00
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	16.00	16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				428.87 W
	Add 1 % Water charges on "W"				4.29
	TOTAL				433.16 X
	Add GST on "X" (multiplying factor 0.1405)				60.86
	TOTAL				494.02 Y
	Add 15% CPOH on "Y"				74.10
	TOTAL				568.13 Z
	Add Cess @ 1% on "Z"				5.68
	Cost of each				573.81
	Say				573.80
	FOR DPA 30% LESS				**401.66**

17.44 Providing and fixing single equal plain junction of required degree :
17.44.1 100x100x100 mm
17.44.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
1628	S.C.I. plain single equal junctions 100x100x100 mm dia	each	1.00	405.00	405.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				433.66 W
	Add 1 % Water charges on "W"				4.34
	TOTAL				438.00 X
	Add GST on "X" (multiplying factor 0.1405)				61.54
	TOTAL				499.54 Y
	Add 15% CPOH on "Y"				74.93
	TOTAL				574.47 Z
	Add Cess @ 1% on "Z"				5.74
	Cost of each				580.21
	Say				580.20
	FOR DPA 30% LESS				**406.14**

17.44.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				

3640	S.C.I. S&S single equal junctions 100x100x100 mm	each	1.00	500.00	500.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				528.66 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				533.95 X
	Add GST on "X" (multiplying factor 0.1405)				75.02
	TOTAL				608.97 Y
	Add 15% CPOH on "Y"				91.35
	TOTAL				700.31 Z
	Add Cess @ 1% on "Z"				7.00
	Cost of each				707.32
	Say				707.30
	FOR DPA 30% LESS				**495.11**

17.44.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7627	Hubless centrifugally cast (spun) iron single equal plain junction as per IS 15905 - 100x100x100 mm dia	each	1.00	400.00	400.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				428.66 W
	Add 1 % Water charges on "W"				4.29
	TOTAL				432.95 X
	Add GST on "X" (multiplying factor 0.1405)				60.83
	TOTAL				493.78 Y
	Add 15% CPOH on "Y"				74.07
	TOTAL				567.85 Z
	Add Cess @ 1% on "Z"				5.68
	Cost of each				573.52
	Say				573.50
	FOR DPA 30% LESS				**401.45**

17.44.2 75x75x75 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1627	S.C.I. plain single equal junctions 75x75x75 mm dia	each	1.00	315.00	315.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				337.87 W
	Add 1 % Water charges on "W"				3.38
	TOTAL				341.25 X
	Add GST on "X" (multiplying factor 0.1405)				47.95
	TOTAL				389.20 Y
	Add 15% CPOH on "Y"				58.38
	TOTAL				447.58 Z
	Add Cess @ 1% on "Z"				4.48

	Cost of each				452.06
	Say				452.05
	FOR DPA 30% LESS				**316.435**

17.44.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3641	S.C.I. S&S single equal junctions 75x75x75 mm	each	1.00	350.00	350.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				372.87 W
	Add 1 % Water charges on "W"				3.73
	TOTAL				376.60 X
	Add GST on "X" (multiplying factor 0.1405)				52.91
	TOTAL				429.52 Y
	Add 15% CPOH on "Y"				64.43
	TOTAL				493.94 Z
	Add Cess @ 1% on "Z"				4.94
	Cost of each				498.88
	Say				498.90
	FOR DPA 30% LESS				**349.23**

17.44.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount
7628	Detail of cost for one no. MATERIAL Hubless centrifugally cast (spun) iron single equal plain junction as per IS 15905 - 75x75x75 mm dia	each	1.00	215.00	215.00
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				237.87 W
	Add 1 % Water charges on "W"				2.38
	TOTAL				240.25 X
	Add GST on "X" (multiplying factor 0.1405)				33.76
	TOTAL				274.01 Y
	Add 15% CPOH on "Y"				41.10
	TOTAL				315.11 Z
	Add Cess @ 1% on "Z"				3.15
	Cost of each				318.26
	Say				318.25
	FOR DPA 30% LESS				**222.78**

17.45 Providing and fixing double unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete:

17.45.1 100x100x75x75 mm

17.45.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1662	Sand cast iron S&S double unequal junctions: 100x100x75x75 mm dia with access door.	each	1.00	725.00	725.00
1374	Rubber insertions for 100 mm dia				

	pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				771.66 W
	Add 1 % Water charges on "W"				7.72
	TOTAL				779.38 X
	Add GST on "X" (multiplying factor 0.1405)				109.50
	TOTAL				888.88 Y
	Add 15% CPOH on "Y"				133.33
	TOTAL				1022.21 Z
	Add Cess @ 1% on "Z"				10.22
	Cost of each				1032.44
	Say				1032.45
	FOR DPA 30% LESS				**722.715**

17.45.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
3674 1374	Details of cost for one no. MATERIAL S.C.I. S&S double unequal junctions with access door 100x100x75x75 mm Rubber insertions for 100 mm dia pipe joints	each each	1.00 1.00	900.00 18.00	900.00 18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				946.66 W
	Add 1 % Water charges on "W"				9.47
	TOTAL				956.13 X
	Add GST on "X" (multiplying factor 0.1405)				134.34
	TOTAL				1090.47 Y
	Add 15% CPOH on "Y"				163.57
	TOTAL				1254.03 Z
	Add Cess @ 1% on "Z"				12.54
	Cost of each				1266.58
	Say				1266.60
	FOR DPA 30% LESS				**886.62**

17.46 Providing and fixing double unequal plain junction of required degree :
17.46.1 100x100x75x75 mm
17.46.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1659	Sand cast iron S&S plain double unequal junctions : 100x100x75x 75 mm dia	each	1.00	625.00	625.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				653.66 W
	Add 1 % Water charges on "W"				6.54
	TOTAL				660.20 X
	Add GST on "X" (multiplying factor 0.1405)				92.76
	TOTAL				752.96 Y
	Add 15% CPOH on "Y"				112.94

	TOTAL				865.90 Z
	Add Cess @ 1% on "Z"				8.66
	Cost of each				874.56
	Say				874.55
	FOR DPA 30% LESS				**612.185**

17.46.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3670	S.C.I. S&S double unequal junctions 100x100x75x75 mm	each	1.00	800.00	800.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				828.66 W
	Add 1 % Water charges on "W"				8.29
	TOTAL				836.95 X
	Add GST on "X" (multiplying factor 0.1405)				117.59
	TOTAL				954.54 Y
	Add 15% CPOH on "Y"				143.18
	TOTAL				1097.72 Z
	Add Cess @ 1% on "Z"				10.98
	Cost of each				1108.70
	Say				1108.70
	FOR DPA 30% LESS				**776.09**

17.46.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7629	Hubless centrifugally cast (spun) iron double unequal plain junction as per IS 15905 - 100x100x75x75 mm dia	each	1.00	400.00	400.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				428.66 W
	Add 1 % Water charges on "W"				4.29
	TOTAL				432.95 X
	Add GST on "X" (multiplying factor 0.1405)				60.83
	TOTAL				493.78 Y
	Add 15% CPOH on "Y"				74.07
	TOTAL				567.85 Z
	Add Cess @ 1% on "Z"				5.68
	Cost of each				573.52
	Say				573.50
	FOR DPA 30% LESS				**401.45**

17.47 Providing and fixing single unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :

17.47.1 100x100x75 mm

17.47.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				

Code	Description	Unit	Quantity	Rate	Amount
1656	Sand cast iron S&S single unequal junctions: 100x100x75 mm dia with access door.	each	1.00	575.00	575.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				621.66 W
	Add 1 % Water charges on "W"				6.22
	TOTAL				627.88 X
	Add GST on "X" (multiplying factor 0.1405)				88.22
	TOTAL				716.10 Y
	Add 15% CPOH on "Y"				107.41
	TOTAL				823.51 Z
	Add Cess @ 1% on "Z"				8.24
	Cost of each				831.75
	Say				831.75
	FOR DPA 30% LESS				**582.23**

17.47.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3664	S.C.I. S&S single unequal junctions with access door 100x100x75 mm	each	1.00	650.00	650.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				696.66 W
	Add 1 % Water charges on "W"				6.97
	TOTAL				703.63 X
	Add GST on "X" (multiplying factor 0.1405)				98.86
	TOTAL				802.49 Y
	Add 15% CPOH on "Y"				120.37
	TOTAL				922.86 Z
	Add Cess @ 1% on "Z"				9.23
	Cost of each				932.09
	Say				932.10
	FOR DPA 30% LESS				**652.47**

17.48 Providing and fixing single unequal plain junction of required degree :

17.48.1 100x100x75 mm

17.48.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1653	Sand cast iron S&S plain single unequal junctions : 100x100x75 mm dia	each	1.00	525.00	525.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				553.66 W
	Add 1 % Water charges on "W"				5.54

	TOTAL				559.20 X
	Add GST on "X" (multiplying factor 0.1405)				78.57
	TOTAL				637.77 Y
	Add 15% CPOH on "Y"				95.66
	TOTAL				733.43 Z
	Add Cess @ 1% on "Z"				7.33
	Cost of each				740.77
	Say				740.75
	FOR DPA 30% LESS				**518.525**

17.48.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
3660	Details of cost for one no. MATERIAL S.C.I. S&S single unequal junctions 100x100x75 mm	each	1.00	600.00	600.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				628.66 W
	Add 1 % Water charges on "W"				6.29
	TOTAL				634.95 X
	Add GST on "X" (multiplying factor 0.1405)				89.21
	TOTAL				724.16 Y
	Add 15% CPOH on "Y"				108.62
	TOTAL				832.78 Z
	Add Cess @ 1% on "Z"				8.33
	Cost of each				841.11
	Say				841.10
	FOR DPA 30% LESS				**588.77**

17.48.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7630	Hubless centrifugally cast (spun) iron single unequal plain junction as per IS 15905 - 100x100x75 mm dia	each	1.00	375.00	375.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				403.66 W
	Add 1 % Water charges on "W"				4.04
	TOTAL				407.70 X
	Add GST on "X" (multiplying factor 0.1405)				57.28
	TOTAL				464.98 Y
	Add 15% CPOH on "Y"				69.75
	TOTAL				534.73 Z
	Add Cess @ 1% on "Z"				5.35
	Cost of each				540.08
	Say				540.10
	FOR DPA 30% LESS				**378.07**

17.49 Providing and fixing double equal plain invert branch of required degree: 17.49.1 100x100x100x100 mm

17.49.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
1673	Details of cost for one no. MATERIAL S.C.I. double equal invert branch of required degree 100x100x100x 100 mm dia	each	1.00	550.00	550.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				578.66 W
	Add 1 % Water charges on "W"				5.79
	TOTAL				584.45 X
	Add GST on "X" (multiplying factor 0.1405)				82.12
	TOTAL				666.56 Y
	Add 15% CPOH on "Y"				99.98
	TOTAL				766.55 Z
	Add Cess @ 1% on "Z"				7.67
	Cost of each				774.21
	Say				774.20
	FOR DPA 30% LESS				**541.94**

17.49.1.2 Sand cast iron S&S as per IS 3989

Code	Description	Unit	Quantity	Rate	Amount
3685	Details of cost for one no. MATERIAL S.C.I. S&S double equal invert branch of required degree100x100x100x 100 mm dia	each	1.00	540.00	540.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				568.66 W
	Add 1 % Water charges on "W"				5.69
	TOTAL				574.35 X
	Add GST on "X" (multiplying factor 0.1405)				80.70
	TOTAL				655.05 Y
	Add 15% CPOH on "Y"				98.26
	TOTAL				753.30 Z
	Add Cess @ 1% on "Z"				7.53
	Cost of each				760.83
	Say				760.85
	FOR DPA 30% LESS				**532.60**

17.49.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount
7631	Detail of cost for one no. MATERIAL Hubless centrifugally cast (spun) iron double equal plain invert branch as per IS 15905 - 100x100x100x100 mm dia	each	1.00	625.00	625.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				653.66 W
	Add 1 % Water charges on "W"				6.54
	TOTAL				660.20 X
	Add GST on "X" (multiplying factor 0.1405)				92.76
	TOTAL				752.96 Y

	Add 15% CPOH on "Y"				112.94
	TOTAL				865.90 Z
	Add Cess @ 1% on "Z"				8.66
	Cost of each				874.56
	Say				874.55
	FOR DPA 30% LESS				**612.19**

17.49.2 75x75x75x75 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1672	S.C.I. double equal invert branch of required degree 75x75x75x75 mm dia	each	1.00	425.00	425.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				447.87 W
	Add 1 % Water charges on "W"				4.48
	TOTAL				452.35 X
	Add GST on "X" (multiplying factor 0.1405)				63.56
	TOTAL				515.91 Y
	Add 15% CPOH on "Y"				77.39
	TOTAL				593.30 Z
	Add Cess @ 1% on "Z"				5.93
	Cost of each				599.23
	Say				599.25
	FOR DPA 30% LESS				**419.48**

17.49.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3686	S.C.I. S&S double equal invert branch of required degree 75x75x75x 75 mm dia	each	1.00	450.00	450.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				472.87 W
	Add 1 % Water charges on "W"				4.73
	TOTAL				477.60 X
	Add GST on "X" (multiplying factor 0.1405)				67.10
	TOTAL				544.71 Y
	Add 15% CPOH on "Y"				81.71
	TOTAL				626.41 Z
	Add Cess @ 1% on "Z"				6.26
	Cost of each				632.68
	Say				632.70
	FOR DPA 30% LESS				**442.89**

17.50 Providing and fixing single equal plain invert branch of required degree :

17.50.1 100x100x100 mm

17.50.1.1 Sand cast iron S&S as per iron 1729

Code	Description	Unit	Quantity	Rate	Amount
1670	Details of cost for one no. MATERIAL S.C.I. single equal invert branch of required degree 100x100x100 mm dia	each	1.00	435.00	435.00

9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				463.66 W
	Add 1 % Water charges on "W"				4.64
	TOTAL				468.30 X
	Add GST on "X" (multiplying factor 0.1405)				65.80
	TOTAL				534.10 Y
	Add 15% CPOH on "Y"				80.11
	TOTAL				614.21 Z
	Add Cess @ 1% on "Z"				6.14
	Cost of each				620.35
	Say				620.35
	FOR DPA 30% LESS				**434.25**

17.50.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3681	S.C.I. S&S single equal invert branch of required degree 100x100x 100 mm dia	each	1.00	430.00	430.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				458.66 W
	Add 1 % Water charges on "W"				4.59
	TOTAL				463.25 X
	Add GST on "X" (multiplying factor 0.1405)				65.09
	TOTAL				528.34 Y
	Add 15% CPOH on "Y"				79.25
	TOTAL				607.59 Z
	Add Cess @ 1% on "Z"				6.08
	Cost of each				613.66
	Say				613.65
	FOR DPA 30% LESS				**429.555**

17.50.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount
7632	Detail of cost for one no. MATERIAL Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 100x100x100 mm dia	each	1.00	390.00	390.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				418.66 W
	Add 1 % Water charges on "W"				4.19
	TOTAL				422.85 X
	Add GST on "X" (multiplying factor 0.1405)				59.41
	TOTAL				482.26 Y
	Add 15% CPOH on "Y"				72.34
	TOTAL				554.60 Z
	Add Cess @ 1% on "Z"				5.55
	Cost of each				560.14
	Say				560.15
	FOR DPA 30% LESS				**392.105**

17.50.2 75x75x75 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1669	S.C.I. single equal invert branch of required degree75x75x75 mm dia	each	1.00	350.00	350.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				372.87 W
	Add 1 % Water charges on "W"				3.73
	TOTAL				376.60 X
	Add GST on "X" (multiplying factor 0.1405)				52.91
	TOTAL				429.52 Y
	Add 15% CPOH on "Y"				64.43
	TOTAL				493.94 Z
	Add Cess @ 1% on "Z"				4.94
	Cost of each				498.88
	Say				498.90
	FOR DPA 30% LESS				**349.23**

17.50.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3682	S.C.I. S&S single equal invert branch of required degree 75x75x75 mm dia	each	1.00	330.00	330.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				352.87 W
	Add 1 % Water charges on "W"				3.53
	TOTAL				356.40 X
	Add GST on "X" (multiplying factor 0.1405)				50.07
	TOTAL				406.48 Y
	Add 15% CPOH on "Y"				60.97
	TOTAL				467.45 Z
	Add Cess @ 1% on "Z"				4.67
	Cost of each				472.12
	Say				472.10
	FOR DPA 30% LESS				**330.47**

17.50.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7633	Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 75x75x75 mm dia	each	1.00	260.00	260.00
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				282.87 W
	Add 1 % Water charges on "W"				2.83
	TOTAL				285.70 X
	Add GST on "X" (multiplying factor 0.1405)				40.14
	TOTAL				325.84 Y

	Add 15% CPOH on "Y"				48.88
	TOTAL				374.72 Z
	Add Cess @ 1% on "Z"				3.75
	Cost of each				378.47
	Say				378.45
	FOR DPA 30% LESS				**264.92**

17.51 Providing and fixing double unequal invert branch of required degree :
17.51.1 100x100x75x75 mm
17.51.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1677	S.C.I. double unequal invert branch of required degree 100x100x75x75 mm dia	each	1.00	600.00	600.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				628.66 W
	Add 1 % Water charges on "W"				6.29
	TOTAL				634.95 X
	Add GST on "X" (multiplying factor 0.1405)				89.21
	TOTAL				724.16 Y
	Add 15% CPOH on "Y"				108.62
	TOTAL				832.78 Z
	Add Cess @ 1% on "Z"				8.33
	Cost of each				841.11
	Say				841.10
	FOR DPA 30% LESS				**588.77**

17.51.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
3695	S.C.I. S&S double unequal invert branch of required degree100x100x75x75 mm dia	each	1.00	730.00	730.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				758.66 W
	Add 1 % Water charges on "W"				7.59
	TOTAL				766.25 X
	Add GST on "X" (multiplying factor 0.1405)				107.66
	TOTAL				873.91 Y
	Add 15% CPOH on "Y"				131.09
	TOTAL				1004.99 Z
	Add Cess @ 1% on "Z"				10.05
	Cost of each				1015.04
	Say				1015.05
	FOR DPA 30% LESS				**710.54**

17.52 Providing and fixing single unequal plain invert branch of required degree :
17.52.1 100x100x75 mm
17.52.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				

1674	S.C.I. single unequal invert branch of required degree100x100x75 mm dia	each	1.00	500.00	500.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				528.66 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				533.95 X
	Add GST on "X" (multiplying factor 0.1405)				75.02
	TOTAL				608.97 Y
	Add 15% CPOH on "Y"				91.35
	TOTAL				700.31 Z
	Add Cess @ 1% on "Z"				7.00
	Cost of each				707.32
	Say				707.30
	FOR DPA 30% LESS				**495.11**

17.52.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
3690	Details of cost for one no. MATERIAL S.C.I. S&S single unequal invert branch of required degree100x100x 75 mm dia	each	1.00	550.00	550.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				578.66 W
	Add 1 % Water charges on "W"				5.79
	TOTAL				584.45 X
	Add GST on "X" (multiplying factor 0.1405)				82.12
	TOTAL				666.56 Y
	Add 15% CPOH on "Y"				99.98
	TOTAL				766.55 Z
	Add Cess @ 1% on "Z"				7.67
	Cost of each				774.21
	Say				774.20
	FOR DPA 30% LESS				**541.94**

17.52.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7634	Hubless centrifugally cast (spun) iron single unequal plain invert branch 45 degree as per IS 15905 - 100x100x 75 mm dia	each	1.00	430.00	430.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				458.66 W
	Add 1 % Water charges on "W"				4.59
	TOTAL				463.25 X
	Add GST on "X" (multiplying factor 0.1405)				65.09
	TOTAL				528.34 Y
	Add 15% CPOH on "Y"				79.25
	TOTAL				607.59 Z
	Add Cess @ 1% on "Z"				6.08
	Cost of each				613.66

	Say				613.65
	FOR DPA 30% LESS				**429.555**

17.53 Providing and fixing sand cast iron S&S off sets as per IS: 1729

Code	Description	Unit	Quantity	Rate	Amount
3746	Details of cost for one no. MATERIAL S.C.I. S&S, 75 mm offset for 75 mm dia pipe	each	1.00	220.00	220.00

17.53.1.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3747	S.C.I. S&S, 75 mm offset for 100 mm dia pipe	each	1.00	360.00	360.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				382.87 W
	Add 1 % Water charges on "W"				3.83
	TOTAL				386.70 X
	Add GST on "X" (multiplying factor 0.1405)				54.33
	TOTAL				441.04 Y
	Add 15% CPOH on "Y"				66.16
	TOTAL				507.19 Z
	Add Cess @ 1% on "Z"				5.07
	Cost of each				512.26
	Say				512.25
	FOR DPA 30% LESS				**358.58**

17.53.2 114 mm off sets

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3712	S.C.I. S&S, 114 mm offset for 75 mm dia pipe	each	1.00	310.00	310.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				338.66 W
	Add 1 % Water charges on "W"				3.39
	TOTAL				342.05 X
	Add GST on "X" (multiplying factor 0.1405)				48.06
	TOTAL				390.11 Y
	Add 15% CPOH on "Y"				58.52
	TOTAL				448.62 Z
	Add Cess @ 1% on "Z"				4.49
	Cost of each				453.11
	Say				453.10
	FOR DPA 30% LESS				**317.17**

17.53.2.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3713	S.C.I. S&S, 114 mm offset for 100 mm dia pipe	each	1.00	390.00	390.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				418.66 W

	Add 1 % Water charges on "W"				4.19
	TOTAL				422.85 X
	Add GST on "X" (multiplying factor 0.1405)				59.41
	TOTAL				482.26 Y
	Add 15% CPOH on "Y"				72.34
	TOTAL				554.60 Z
	Add Cess @ 1% on "Z"				5.55
	Cost of each				560.14
	Say				560.15
	FOR DPA 30% LESS				**392.11**

17.53.3 152 mm off sets

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3716	S.C.I. S&S, 152 mm offset for 75 mm dia pipe	each	1.00	360.00	360.00
9988	Carriage of materials and fixing charges	L.S.	17.94	2.12	38.03
	TOTAL				398.03 W
	Add 1 % Water charges on "W"				3.98
	TOTAL				402.01 X
	Add GST on "X" (multiplying factor 0.1405)				56.48
	TOTAL				458.50 Y
	Add 15% CPOH on "Y"				68.77
	TOTAL				527.27 Z
	Add Cess @ 1% on "Z"				5.27
	Cost of each				532.54
	Say				532.55
	FOR DPA 30% LESS				**372.79**

17.53.3.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
3717	Details of cost for one no. MATERIAL S.C.I. S&S, 152 mm offset for 100 mm dia pipe	each	1.00	460.00	460.00

17.53A Providing and fixing Hubless centrifugally cast iron offsets epoxy coated inside & outside as per IS:15905

17.53A.1 65 mm offsets 17.53A.1.1 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7635	Hubless centrifugally cast (spun) iron 65 mm offset with 100 mm dia pipe as per IS 15905	each	1.00	360.00	360.00
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				382.87 W
	Add 1 % Water charges on "W"				3.83
	TOTAL				386.70 X
	Add GST on "X" (multiplying factor 0.1405)				54.33
	TOTAL				441.04 Y

Code	Description	Unit	Quantity	Rate	Amount
	Add 15% CPOH on "Y"				66.16
	TOTAL				507.19 Z
	Add Cess @ 1% on "Z"				5.07
	Cost of each				512.26
	Say				512.25
	FOR DPA 30% LESS				**358.575**

17.53A.1.2 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
7636	Detail of cost for one no. MATERIAL Hubless centrifugally cast (spun) iron 65 mm offset with 75 mm dia pipe as per IS 15905	each	1.00	295.00	295.00

17.54 Providing and fixing sand cast iron S&S off sets as per IS: 3989 :

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3699	S.C.I. S&S, 75 mm offset for 75 mm dia pipe	each	1.00	230.00	230.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				252.87 W
	Add 1 % Water charges on "W"				2.53
	TOTAL				255.40 X
	Add GST on "X" (multiplying factor 0.1405)				35.88
	TOTAL				291.29 Y
	Add 15% CPOH on "Y"				43.69
	TOTAL				334.98 Z
	Add Cess @ 1% on "Z"				3.35
	Cost of each				338.33
	Say				338.35
	FOR DPA 30% LESS				**236.85**

17.54.2 150 mm off sets

Code	Description	Unit	Quantity	Rate	Amount
3707	Details of cost for one no. MATERIAL S.C.I. S&S, 150 mm offset for 75 mm dia pipe	each	1.00	300.00	300.00

17.54.2.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3708	S.C.I. S&S, 150 mm offset for 100 mm dia pipe	each	1.00	400.00	400.00
9988	Carriage of materials and fixing charges	L.S.	16.12	2.12	34.17
	TOTAL				434.17 W
	Add 1 % Water charges on "W"				4.34
	TOTAL				438.52 X
	Add GST on "X" (multiplying factor 0.1405)				61.61
	TOTAL				500.13 Y
	Add 15% CPOH on "Y"				75.02
	TOTAL				575.15 Z
	Add Cess @ 1% on "Z"				5.75
	Cost of each				580.90
	Say				580.90

	FOR DPA 30% LESS				406.63

17.54A Providing and fixing Hubless centrifugally cast iron offsets epoxy coated inside & outside as per IS:15905

17.54A.1 130 mm offsets 17.54A.1.1 With 100 mm dia

Code	Description	Unit	Quantity	Rate	Amount
7637	Detail of cost for one no. MATERIAL Hubless centrifugally cast (spun) iron 130 mm offset with 100 mm dia pipe as per IS 15905	each	1.00	440.00	440.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				468.66 W
	Add 1 % Water charges on "W"				4.69
	TOTAL				473.35 X
	Add GST on "X" (multiplying factor 0.1405)				66.51
	TOTAL				539.85 Y
	Add 15% CPOH on "Y"				80.98
	TOTAL				620.83 Z
	Add Cess @ 1% on "Z"				6.21
	Cost of each				627.04
	Say				627.05
	FOR DPA 30% LESS				438.935

17.54A.1.2 With 75 mm dia

Code	Description	Unit	Quantity	Rate	Amount
7638	Detail of cost for one no. MATERIAL Hubless centrifugally cast (spun) iron 130 mm offset with 75 mm dia pipe as per IS 15905	each	1.00	310.00	310.00
9999	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				332.87 W
	Add 1 % Water charges on "W"				3.33
	TOTAL				336.20 X
	Add GST on "X" (multiplying factor 0.1405)				47.24
	TOTAL				383.44 Y
	Add 15% CPOH on "Y"				57.52
	TOTAL				440.96 Z
	Add Cess @ 1% on "Z"				4.41
	Cost of each				445.37
	Say				445.35
	FOR DPA 30% LESS				311.745

17.55 Providing and fixing door piece, insertion rubber washer 3mm thick, bolts & nuts complete :

17.55.1 100 mm

17.55.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
1683 1374	Details of cost for one no. MATERIAL S.C.I. door pieces 100 mm dia Rubber insertions for 100 mm dia pipe joints	each each	1.00 1.00	485.00 18.00	485.00 18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				531.66 W
	Add 1 % Water charges on "W"				5.32

	TOTAL				536.98 X
	Add GST on "X" (multiplying factor 0.1405)				75.45
	TOTAL				612.42 Y
	Add 15% CPOH on "Y"				91.86
	TOTAL				704.29 Z
	Add Cess @ 1% on "Z"				7.04
	Cost of each				711.33
	Say				711.35
	FOR DPA 30% LESS				**497.95**

17.55.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3728	S.C.I. S&S door pieces 100 mm dia	each	1.00	410.00	410.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				456.66 W
	Add 1 % Water charges on "W"				4.57
	TOTAL				461.23 X
	Add GST on "X" (multiplying factor 0.1405)				64.80
	TOTAL				526.03 Y
	Add 15% CPOH on "Y"				78.90
	TOTAL				604.94 Z
	Add Cess @ 1% on "Z"				6.05
	Cost of each				610.99
	Say				611.00
	FOR DPA 30% LESS				**427.7**

17.55.2 75 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1682	S.C.I. door pieces 75 mm dia	each	1.00	285.00	285.00
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	16.00	16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				323.87 W
	Add 1 % Water charges on "W"				3.24
	TOTAL				327.11 X
	Add GST on "X" (multiplying factor 0.1405)				45.96
	TOTAL				373.07 Y
	Add 15% CPOH on "Y"				55.96
	TOTAL				429.03 Z
	Add Cess @ 1% on "Z"				4.29
	Cost of each				433.32
	Say				433.30
	FOR DPA 30% LESS				**303.31**

17.55.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3729	S.C.I. S&S door pieces 75 mm dia	each	1.00	300.00	300.00
1373	Rubber insertions for 80 mm dia				
	pipe joints	each	1.00	16.00	16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				338.87 W
	Add 1 % Water charges on "W"				3.39
	TOTAL				342.26 X
	Add GST on "X" (multiplying				
	factor 0.1405)				48.09
	TOTAL				390.35 Y
	Add 15% CPOH on "Y"				58.55
	TOTAL				448.90 Z
	Add Cess @ 1% on "Z"				4.49
	Cost of each				453.39
	Say				453.40
	FOR DPA 30% LESS				**317.38**

17.56 Providing and fixing terminal guard :

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1640	Slotted cowl (terminal guard)				
	100 mm dia	each	1.00	265.00	265.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				293.66 W
	Add 1 % Water charges on "W"				2.94
	TOTAL				296.60 X
	Add GST on "X" (multiplying				
	factor 0.1405)				41.67
	TOTAL				338.27 Y
	Add 15% CPOH on "Y"				50.74
	TOTAL				389.01 Z
	Add Cess @ 1% on "Z"				3.89
	Cost of each				392.90
	Say				392.90
	FOR DPA 30% LESS				**275.03**

17.56.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
3733	Details of cost for one no. MATERIAL S.C.I. S&S, Slotted Cowl (Terminal Guard) 100 mm	each	1.00	300.00	300.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				328.66 W
	Add 1 % Water charges on "W"				3.29
	TOTAL				331.95 X
	Add GST on "X" (multiplying				
	factor 0.1405)				46.64
	TOTAL				378.59 Y
	Add 15% CPOH on "Y"				56.79
	TOTAL				435.38 Z

	Add Cess @ 1% on "Z"				4.35
	Cost of each				439.73
	Say				439.75
	FOR DPA 30% LESS				**307.83**

17.56.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7641	Hubless centrifugally cast (spun) iron terminal guard (slotted cowl) - 100 mm dia as per IS 15905	each	1.00	270.00	270.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				298.66 W
	Add 1 % Water charges on "W"				2.99
	TOTAL				301.65 X
	Add GST on "X" (multiplying factor 0.1405)				42.38
	TOTAL				344.03 Y
	Add 15% CPOH on "Y"				51.60
	TOTAL				395.64 Z
	Add Cess @ 1% on "Z"				3.96
	Cost of each				399.59
	Say				399.60
	FOR DPA 30% LESS				**279.72**

17.56.2 75 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1639	Slotted cowl (terminal guard)75 mm dia	each	1.00	215.00	215.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				237.87 W
	Add 1 % Water charges on "W"				2.38
	TOTAL				240.25 X
	Add GST on "X" (multiplying factor 0.1405)				33.76
	TOTAL				274.01 Y
	Add 15% CPOH on "Y"				41.10
	TOTAL				315.11 Z
	Add Cess @ 1% on "Z"				3.15
	Cost of each				318.26
	Say				318.25
	FOR DPA 30% LESS				**222.78**

17.56.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3734	S.C.I. S&S, Slotted Cowl (Terminal Guard) 75 mm	each	1.00	210.00	210.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				232.87 W

	Add 1 % Water charges on "W"				2.33
	TOTAL				235.20 X
	Add GST on "X" (multiplying factor 0.1405)				33.05
	TOTAL				268.25 Y
	Add 15% CPOH on "Y"				40.24
	TOTAL				308.49 Z
	Add Cess @ 1% on "Z"				3.08
	Cost of each				311.57
	Say				311.55
	FOR DPA 30% LESS				**218.09**

17.57 Providing and fixing collar :

17.57.1 100 mm

17.57.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1686	S.C.I. collar 100 mm dia	each	1.00	270.00	270.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				298.66 W
	Add 1 % Water charges on "W"				2.99
	TOTAL				301.65 X
	Add GST on "X" (multiplying factor 0.1405)				42.38
	TOTAL				344.03 Y
	Add 15% CPOH on "Y"				51.60
	TOTAL				395.64 Z
	Add Cess @ 1% on "Z"				3.96
	Cost of each				399.59
	Say				399.60
	FOR DPA 30% LESS				**279.72**

17.57.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
3738	Details of cost for one no. MATERIAL S.C.I. S&S, collars 100 mm	each	1.00	300.00	300.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				328.66 W
	Add 1 % Water charges on "W"				3.29
	TOTAL				331.95 X
	Add GST on "X" (multiplying factor 0.1405)				46.64
	TOTAL				378.59 Y
	Add 15% CPOH on "Y"				56.79
	TOTAL				435.38 Z
	Add Cess @ 1% on "Z"				4.35
	Cost of each				439.73
	Say				439.75
	FOR DPA 30% LESS				**307.83**

17.57.2 75 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				

	MATERIAL				
1685	S.C.I. collar 75 mm dia	each	1.00	180.00	180.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				202.87 W
	Add 1 % Water charges on "W"				2.03
	TOTAL				204.90 X
	Add GST on "X" (multiplying factor 0.1405)				28.79
	TOTAL				233.69 Y
	Add 15% CPOH on "Y"				35.05
	TOTAL				268.75 Z
	Add Cess @ 1% on "Z"				2.69
	Cost of each				271.43
	Say				271.45
	FOR DPA 30% LESS				**190.02**

17.57.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3739	S.C.I. S&S, collars 75 mm	each	1.00	180.00	180.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				202.87 W
	Add 1 % Water charges on "W"				2.03
	TOTAL				204.90 X
	Add GST on "X" (multiplying factor 0.1405)				28.79
	TOTAL				233.69 Y
	Add 15% CPOH on "Y"				35.05
	TOTAL				268.75 Z
	Add Cess @ 1% on "Z"				2.69
	Cost of each				271.43
	Say				271.45
	FOR DPA 30% LESS				**190.02**

17.57A Providing and fixing shielded coupling for Hubless centrifugally cast iron pipe 17.57A.1 100 mm dia

17.57A.1.1 SS 304 grade coupling with EPDM rubber gasket

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7644	SS 304 grade shielded coupling with EPDM rubber gasket for 100 mm dia Hubless centrifugally cast (spun) iron	each	1.00	275.00	275.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				303.66 W
	Add 1 % Water charges on "W"				3.04
	TOTAL				306.70 X
	Add GST on "X" (multiplying factor 0.1405)				43.09
	TOTAL				349.79 Y
	Add 15% CPOH on "Y"				52.47

	TOTAL				402.26 Z
	Add Cess @ 1% on "Z"				4.02
	Cost of each				406.28
	Say				406.30
	FOR DPA 30% LESS				**284.41**

17.57A.2 75 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7645	SS 304 grade shielded coupling with EPDM rubber gasket for 75 mm dia Hubless centrifugally cast (spun) iron	each	1.00	250.00	250.00
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				272.87 W
	Add 1 % Water charges on "W"				2.73
	TOTAL				275.60 X
	Add GST on "X" (multiplying factor 0.1405)				38.72
	TOTAL				314.33 Y
	Add 15% CPOH on "Y"				47.15
	TOTAL				361.47 Z
	Add Cess @ 1% on "Z"				3.61
	Cost of each				365.09
	Say				365.10
	FOR DPA 30% LESS				**255.57**

17.58 Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter :

17.58.1 100 mm

Code	Description	Unit	Quantity	Rate	Amount
1397	Details of cost for one joint MATERIAL Pig lead	kilogram	0.98	210.00	205.80
1881	Spun yarn	kilogram	0.11	55.00	6.05
9999	Kerosene oil, fuel and other sundries	L.S.	13.52	2.12	28.66
9977	Carriage of materials	L.S.	1.43	2.12	3.03
	LABOUR				
0116	Fitter (grade 1)	day	0.06	784.00	47.04
0117	Assistant Fitter or 2nd class Fitter	day	0.06	714.00	42.84
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				410.82 W
	Add 1 % Water charges on "W"				4.11
	TOTAL				414.93 X
	Add GST on "X" (multiplying factor 0.1405)				58.30
	TOTAL				473.23 Y
	Add 15% CPOH on "Y"				70.98
	TOTAL				544.21 Z
	Add Cess @ 1% on "Z"				5.44
	Cost of each				549.66
	Say				549.65
	FOR DPA 30% LESS				**384.76**

17.58.2 75 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one joint				
	MATERIAL				
1397	Pig lead	kilogram	0.88	210.00	184.80
1881	Spun yarn	kilogram	0.09	55.00	4.95
9999	Kerosene oil, fuel and other sundries	L.S.	10.79	2.12	22.87
9977	Carriage of materials	L.S.	1.43	2.12	3.03
	LABOUR				
0116	Fitter (grade 1)	day	0.05	784.00	39.20
0117	Assistant Fitter or 2nd class Fitter	day	0.05	714.00	35.70
0114	Beldar	day	0.09	645.00	58.05
	TOTAL				348.61 W
	Add 1 % Water charges on "W"				3.49
	TOTAL				352.09 X
	Add GST on "X" (multiplying factor 0.1405)				49.47
	TOTAL				401.56 Y
	Add 15% CPOH on "Y"				60.23
	TOTAL				461.80 Z
	Add Cess @ 1% on "Z"				4.62
	Cost of each				466.41
	Say				466.40
	FOR DPA 30% LESS				**326.48**

17.58.3 50 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one joint				
	MATERIAL				
1397	Pig lead	kilogram	0.77	210.00	161.70
1881	Spun yarn	kilogram	0.06	55.00	3.30
9999	Kerosene oil, fuel and other sundries	L.S.	6.76	2.12	14.33
9977	Carriage of materials	L.S.	1.43	2.12	3.03
	LABOUR				
0116	Fitter (grade 1)	day	0.04	784.00	31.36
0117	Assistant Fitter or 2nd class Fitter	day	0.05	714.00	35.70
0114	Beldar	day	0.05	645.00	32.25
	TOTAL				281.67 W
	Add 1 % Water charges on "W"				2.82
	TOTAL				284.49 X
	Add GST on "X" (multiplying factor 0.1405)				39.97
	TOTAL				324.46 Y
	Add 15% CPOH on "Y"				48.67
	TOTAL				373.13 Z
	Add Cess @ 1% on "Z"				3.73
	Cost of each				376.86
	Say				376.85
	FOR DPA 30% LESS				**263.80**

17.59 Providing and fixing M.S. stays and clamps for sand cast iron/ centrifugally cast (spun) iron pipes of diameter :

17.59.1 100 mm

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for one no.				
	MATERIAL				
1330	Clamps and M.S. stays including bolts and nuts for 100 mm pipe	each	1.00	67.50	67.50
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				96.16 W
	Add 1 % Water charges on "W"				0.96
	TOTAL				97.12 X
	Add GST on "X" (multiplying factor 0.1405)				13.65
	TOTAL				110.77 Y
	Add 15% CPOH on "Y"				16.62
	TOTAL				127.39 Z
	Add Cess @ 1% on "Z"				1.27
	Cost of each				128.66
	Say				128.65
	FOR DPA 30% LESS				**90.06**

17.59.2 75 mm

Code	Description	Unit	Quantity	Rate	Amount
1335	Details of cost for one no. MATERIAL Clamps and M.S. stays including bolts and nuts for 75 mm pipe	each	1.00	37.00	37.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				59.87 W
	Add 1 % Water charges on "W"				0.60
	TOTAL				60.47 X
	Add GST on "X" (multiplying factor 0.1405)				8.50
	TOTAL				68.97 Y
	Add 15% CPOH on "Y"				10.35
	TOTAL				79.32 Z
	Add Cess @ 1% on "Z"				0.79
	Cost of each				80.11
	Say				80.10
	FOR DPA 30% LESS				**56.07**

17.59.3 50 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1334	Clamps and M.S. stays including bolts and nuts for 50 mm pipe	each	1.00	35.00	35.00
9988	Carriage of materials and fixing charges	L.S.	9.49	2.12	20.12
	TOTAL				55.12 W
	Add 1 % Water charges on "W"				0.55
	TOTAL				55.67 X
	Add GST on "X" (multiplying factor 0.1405)				7.82
	TOTAL				63.49 Y
	Add 15% CPOH on "Y"				9.52
	TOTAL				73.02 Z
	Add Cess @ 1% on "Z"				0.73
	Cost of each				73.75

	Say				73.75
	FOR DPA 30% LESS				**51.63**

17.60 Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :

17.60.1 100 mm inlet and 100 mm outlet

17.60.1.1 Sand cast iron S&S as per IS: 3989

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
7808	Centrifugally cast (spun) iron S&S 100 mm inlet and 100 mm outlet	each	1.00	450.00	450.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1198.95 W
	Add 1 % Water charges on "W"				11.99
	TOTAL				1210.94 X
	Add GST on "X" (multiplying factor 0.1405)				170.14
	TOTAL				1381.08 Y
	Add 15% CPOH on "Y"				207.16
	TOTAL				1588.24 Z
	Add Cess @ 1% on "Z"				15.88
	Cost of each				1604.12
	Say				1604.10
	FOR DPA 30% LESS				**1122.87**

17.60.1.2 Sand Cast Iron S&S as per IS: 1729

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1897	100 mm S.C.I. trap with 100 mm inlet and 100 mm outlet	each	1.00	300.00	300.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1048.95 W
	Add 1 % Water charges on "W"				10.49
	TOTAL				1059.44 X
	Add GST on "X" (multiplying factor 0.1405)				148.85
	TOTAL				1208.29 Y
	Add 15% CPOH on "Y"				181.24
	TOTAL				1389.53 Z
	Add Cess @ 1% on "Z"				13.90
	Cost of each				1403.43
	Say				1403.45
	FOR DPA 30% LESS				**982.42**

17.60.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount

7642	Detail of cost for one no. MATERIAL Hubless centrifugally cast (spun) iron trap with 100 mm inlet and 100 mm outlet as per IS 15905	each	1.00	540.00	540.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				568.66 W
	Add 1 % Water charges on "W"				5.69
	TOTAL				574.35 X
	Add GST on "X" (multiplying factor 0.1405)				80.70
	TOTAL				655.05 Y
	Add 15% CPOH on "Y"				98.26
	TOTAL				753.30 Z
	Add Cess @ 1% on "Z"				7.53
	Cost of each				760.83
	Say				760.85
	FOR DPA 30% LESS				**532.60**

17.60.2 100 mm inlet and 75 mm outlet

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7809	Centrifugally cast (spun) iron S&S 100 mm inlet and 75 mm outlet	each	1.00	500.00	500.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1248.95 W
	Add 1 % Water charges on "W"				12.49
	TOTAL				1261.44 X
	Add GST on "X" (multiplying factor 0.1405)				177.23
	TOTAL				1438.67 Y
	Add 15% CPOH on "Y"				215.80
	TOTAL				1654.47 Z
	Add Cess @ 1% on "Z"				16.54
	Cost of each				1671.02
	Say				1671.00
	FOR DPA 30% LESS				**1169.70**

17.60.2.2 Sand Cast Iron S&S as per IS- 1729

Code	Description	Unit	Quantity	Rate	Amount
1898 9999 9977	Details of cost for one no. MATERIAL 100 mm S.C.I. trap with 100 mm inlet and 75 mm outlet Cement, sand and grit etc. Carriage of materials	each L.S. L.S.	1.00 13.52 2.73	220.00 2.12 2.12	220.00 28.66 5.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				968.95 W
	Add 1 % Water charges on "W"				9.69
	TOTAL				978.64 X

	Add GST on "X" (multiplying factor 0.1405)				137.50
	TOTAL				1116.14 Y
	Add 15% CPOH on "Y"				167.42
	TOTAL				1283.56 Z
	Add Cess @ 1% on "Z"				12.84
	Cost of each				1296.39
	Say				1296.40
	FOR DPA 30% LESS				**907.48**

17.60.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one no.				
	MATERIAL				
7643	Hubless centrifugally cast (spun) iron trap with 100 mm inlet and 75 mm outlet as per IS 15905	each	1.00	385.00	385.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				413.66 W
	Add 1 % Water charges on "W"				4.14
	TOTAL				417.80 X
	Add GST on "X" (multiplying factor 0.1405)				58.70
	TOTAL				476.50 Y
	Add 15% CPOH on "Y"				71.47
	TOTAL				547.97 Z
	Add Cess @ 1% on "Z"				5.48
	Cost of each				553.45
	Say				553.45
	FOR DPA 30% LESS				**387.42**

17.61 Cutting chases in brick masonry walls for following diameter sand cast iron/ centrifugally cast (spun) iron pipes and making good the same with cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate 12.5 mm nominal size), including necessary plaster and pointing in cement mortar 1:4 (1 cement : 4 coarse sand) :

17.61.1 100 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one metre MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate)				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.022	8843.45	194.56 A
9999	Plastering in cement mortar 1:4	L.S.	10.40	2.12	22.05
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.14	784.00	109.76
0114	Beldar	day	0.27	645.00	174.15
	TOTAL				509.33 W
	Add 1 % Water charges on "W-A"				3.15
	TOTAL				512.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				44.67
	TOTAL				557.15 Y
	Add 15% CPOH on "Y-A"				54.39

	TOTAL				611.54 Z
	Add Cess @ 1% on "Z-A"				4.17
	Cost of one metre				615.71
	Say				615.70
	FOR DPA 30% LESS				**430.99**

17.61.2 75 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one metre				
	MATERIAL				
	Cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate)				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.015	8843.45	132.65 A
9999	Plastering in cement mortar 1:4	L.S.	7.80	2.12	16.54
9977	Carriage of materials	L.S.	3.51	2.12	7.44
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.10	784.00	78.40
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				364.03 W
	Add 1 % Water charges on "W-A"				2.31
	TOTAL				366.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				32.83
	TOTAL				399.18 Y
	Add 15% CPOH on "Y-A"				39.98
	TOTAL				439.15 Z
	Add Cess @ 1% on "Z-A"				3.07
	Cost of one metre				442.22
	Say				442.20
	FOR DPA 30% LESS				**309.54**

17.61.3 50 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one metre MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate)				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.008	8843.45	70.75 A
9999	Plastering in cement mortar 1:4	L.S.	5.20	2.12	11.02
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.07	784.00	54.88
0114	Beldar	day	0.14	645.00	90.3
	TOTAL				232.74 W
	Add 1 % Water charges on "W-A"				1.62
	TOTAL				234.36 X
	Add GST on "X-A" (multiplying factor 0.1405)				22.99
	TOTAL				257.35 Y
	Add 15% CPOH on "Y-A"				27.99
	TOTAL				285.34 Z
	Add Cess @ 1% on "Z-A"				2.15

	Cost of one metre				287.48
	Say				287.50
	FOR DPA 30% LESS				**201.25**

17.62 Painting C.I. cistern with bitumastic or any other anti-corrosive paint inside and white paint over a coat of zinc chromate yellow primer (of approved quality) on the outside surface of the cistern, flush pipe, other fittings, etc. complete for new work.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one cistern with fittings				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.23	100.00	23.00
4202	Red oxide Zinc chromate primer	litre	0.20	120.00	24.00
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.40	165.00	66.00
9977	Carriage of materials	L.S.	1.43	2.12	3.03
9999	Sundries	L.S.	6.76	2.12	14.33
	LABOUR				
0131	Painter	day	0.25	714.00	178.50
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				631.36 W
	Add 1 % Water charges on "W"				6.31
	TOTAL				637.68 X
	Add GST on "X" (multiplying factor 0.1405)				89.59
	TOTAL				727.27 Y
	Add 15% CPOH on "Y"				109.09
	TOTAL				836.36 Z
	Add Cess @ 1% on "Z"				8.36
	Cost of each				844.72
	Say				844.70
	FOR DPA 30% LESS				**591.29**

17.63 Re-painting C.I. cistern with bitumastic or any other anti-corrosive paint inside and white paint on the outside surface of the cistern, flush pipe, other fittings, etc. complete, including polishing of wooden seat and lid and cleaning of W.C. pan with acid wherever necessary.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one cistern with fittings				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.23	100.00	23.00
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.20	165.00	33.00
9999	Polishing of wooden seat and cleaning of W.C. pan with acid	L.S.	20.67	2.12	43.82
9988	Sundries and carriage of materials	L.S.	7.15	2.12	15.16
	LABOUR				
0131	Painter	day	0.20	714.00	142.80
0114	Beldar	day	0.25	645.00	161.25
	TOTAL				419.03 W
	Add 1 % Water charges on "W"				4.19
	TOTAL				423.22 X

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X" (multiplying factor 0.1405)				59.46
	TOTAL				482.68 Y
	Add 15% CPOH on "Y"				72.40
	TOTAL				555.08 Z
	Add Cess @ 1% on "Z"				5.55
	Cost of each				560.63
	Say				560.65
	FOR DPA 30% LESS				**392.46**

17.64 Repainting C.I. cistern with synthetic enamel paint of approved colour, brand and manufacture on the outside surface of cistern, flush pipe, other fittings etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one cistern with fittings				
	MATERIAL				
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.20	165.00	33.00
9988	Sundries and carriage of materials	L.S.	3.64	2.12	7.72
	LABOUR				
0131	Painter	day	0.09	714.00	64.26
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				182.38 W
	Add 1 % Water charges on "W"				1.82
	TOTAL				184.20 X
	Add GST on "X" (multiplying factor 0.1405)				25.88
	TOTAL				210.08 Y
	Add 15% CPOH on "Y"				31.51
	TOTAL				241.59 Z
	Add Cess @ 1% on "Z"				2.42
	Cost of each				244.01
	Say				244.00
	FOR DPA 30% LESS				**170.8**

17.65 Painting sand cast iron/ centrifugally cast (spun) iron soil, waste vent pipes and fittings with two coats of synthetic enamel paint of any colour such as chocolate grey, or buff etc. over a coat of primer (of approved quality) for new work :

17.65.1 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metres				
	MATERIAL				
	Perimeter = 3.14x110 mm =345.71				
	Area 10x0.3457 = 3.46 sqm				
	Priming coat				
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	3.46	55.50	192.03 A
	Painting two coats with paint of any colour such as chocolatem grey or buff etc.				
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	3.46	131.45	454.82 A

9999	Add for delay	L.S.	17.16	2.12	36.38
	TOTAL				683.23 W
	Add 1 % Water charges on "W-A"				0.36
	TOTAL				683.59 X
	Add GST on "X" (multiplying factor 0.1405)				5.16
	TOTAL				688.75 Y
	Add 15% CPOH on "Y-A"				6.29
	TOTAL				695.04 Z
	Add Cess @ 1% on "Z-A"				0.48
	Cost of 10 metres				695.52
	Cost of 1 metre				69.55
	Say				69.55
	FOR DPA 30% LESS				**48.69**

17.65.2 75 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metres MATERIAL Perimeter = 3.14x82 mm =257.71 Area 10x0.2577 =2.577 sqm				
13.50.3	say 2.60 sq. m for outer surface Priming coat	sqm	2.60	55.50	144.30 A
13.61.1	Rate as per item no 13.50.3 of SH : Finishing Painting two coats with paint of any colour such as choclate grey or buff etc. Rate as per item no 13.61.1 of SH : Finishing	sqm	2.60	131.45	341.77 A
9999	Add for delay	L.S.	15.21	2.12	32.25
	TOTAL				518.32 W
	Add 1 % Water charges on "W-A"				0.32
	TOTAL				518.64 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.58
	TOTAL				523.21 Y
	Add 15% CPOH on "Y-A"				5.57
	TOTAL				528.78 Z
	Add Cess @ 1% on "Z-A"				0.43
	Cost of 10 metres				529.21
	Cost of 1 metre				52.92
	Say				52.90
	FOR DPA 30% LESS				**37.03**

17.66 Repainting sand cast iron/ centrifugally cast iron (spun) iron, soil, waste, vent pipes and fittings with one coat of synthetic enamel paint of any colour such as chocolate, grey or buff etc :

17.66.1 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metres				
13.99.1	Painting one coat with paint of any colour such as chocolate,grey or buff etc. (Rate as per item no 13.99.1 of S.H. Finishing)	sqm	3.46	86.55	299.46 A
9999	Add for delay	L.S.	12.22	2.12	25.91
	TOTAL				325.37 W
	Add 1 % Water charges on "W-A"				0.26

	TOTAL				325.63 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.68
	TOTAL				329.30 Y
	Add 15% CPOH on "Y-A"				4.48
	TOTAL				333.78 Z
	Add Cess @ 1% on "Z-A"				0.34
	Cost of 10 metres				334.12
	Cost of 1 metre				33.41
	Say				33.40
	FOR DPA 30% LESS				**23.38**

17.66.2 75 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
13.99.1	Details of cost for 10 metres Painting one coat with paint of any colour such as chocolate,grey or buff etc. (Rate as per item no 13.99.1 of S.H. Finishing)	sqm	2.577	86.55	223.04 A
9999	Add for delay	L.S.	9.49	2.12	20.12
	TOTAL				243.16 W
	Add 1 % Water charges on "W-A"				0.20
	TOTAL				243.36 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.85
	TOTAL				246.21 Y
	Add 15% CPOH on "Y-A"				3.48
	TOTAL				249.69 Z
	Add Cess @ 1% on "Z-A"				0.27
	Cost of 10 metres				249.96
	Cost of 1 metre				25.00
	Say				25.00
	FOR DPA 30% LESS				**17.50**

17.67 Repainting bath tub of size 1700x730x430 mm with enamel paint.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one tub				
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	0.90	175.00	157.50
9999	Sundries	L.S.	6.76	2.12	14.33
	LABOUR				
0131	Painter	day	0.25	714.00	178.50
0115	Coolie	day	0.25	645.00	161.25
	TOTAL				511.58 W
	Add 1 % Water charges on "W"				5.12
	TOTAL				516.70 X
	Add GST on "X" (multiplying factor 0.1405)				72.60
	TOTAL				589.29 Y
	Add 15% CPOH on "Y"				88.39
	TOTAL				677.69 Z
	Add Cess @ 1% on "Z"				6.78

	Cost of each				684.46
	Say				684.45
	FOR DPA 30% LESS				**479.12**

17.68 Providing and fixing vitreous china dual purpose closet suitable for use as squatting pan or European type water closet (Anglo Indian W.C pan) with seat & lid fixed with C.P. brass hinges and rubber buffers, 10 litre low level flushing cistern with fitting and brackets, 40 mm flush bend, 20 mm over flow pipe, with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:

17.68.1 White vitreous china dual purpose WC pan with white solid plastic seat and lid with white vitreous china flushing cistern and C.P. flush bend.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	410.00	410.00
1965	White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as sequatting pan or European type water closet as per manufacturer's specifications	each	1.00	2500.00	2500.00
7006	Vitreous china 10 litres low level cistern with fittings	each	1.00	1200.00	1200.00
9999	20 mm G.I.over flow pipe and specials for over flow pipe	L.S.	276.25	2.12	585.65
1350	Mosquito proof coupling of approved design	each	1.00	30.00	30.00
9999	Plugs, screws etc.	L.S.	59.15	2.12	125.40
9999	Red lead, white lead and gaskin etc.	L.S.	71.76	2.12	152.13
9999	Cement,sand and grit	L.S.	118.43	2.12	251.07
9977	Carriage of materials	L.S.	118.43	2.12	251.07
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0123	Mason (brick layer) 1st class	day	1.00	784.00	784.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				7718.32 W
	Add 1 % Water charges on "W"				77.18
	TOTAL				7795.51 X
	Add GST on "X" (multiplying factor 0.1405)				1095.27
	TOTAL				8890.77 Y
	Add 15% CPOH on "Y"				1333.62
	TOTAL				10224.39 Z
	Add Cess @ 1% on "Z"				102.24
	Cost of each				10326.63
	Say				10326.65
	FOR DPA 30% LESS				**7228.66**

17.69 Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour.

17.69.1 Waste coupling 31 mm dia of 79 mm length and 62mm breadth weighing not less than 45 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				

7491	PTMT Waste Coupling 31/32MM	each	1.00	34.00	34.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				76.99 W
	Add 1 % Water charges on "W"				0.77
	TOTAL				77.76 X
	Add GST on "X" (multiplying factor 0.1405)				10.93
	TOTAL				88.69 Y
	Add 15% CPOH on "Y"				13.30
	TOTAL				101.99 Z
	Add Cess @ 1% on "Z"				1.02
	Cost of each				103.01
	Say				103.00
	FOR DPA 30% LESS				**72.10**

17.69.2 Waste coupling 38 mm dia of 83 mm length and 77mm breadth, weighing not less than 60 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7492	PTMT Waste Coupling 38/40MM	each	1.00	39.00	39.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				81.99 W
	Add 1 % Water charges on "W"				0.82
	TOTAL				82.81 X
	Add GST on "X" (multiplying factor 0.1405)				11.64
	TOTAL				94.45 Y
	Add 15% CPOH on "Y"				14.17
	TOTAL				108.62 Z
	Add Cess @ 1% on "Z"				1.09
	Cost of each				109.70
	Say				109.70
	FOR DPA 30% LESS				**76.79**

17.70 Providing and fixing PTMT Bottle Trap for Wash basin and sink.
17.70.1 Bottle trap 31mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 260 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7493	PTMT Bottle Trap 31/32MM	each	1.00	200.00	200.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				242.99 W
	Add 1 % Water charges on "W"				2.43
	TOTAL				245.42 X
	Add GST on "X" (multiplying factor 0.1405)				34.48
	TOTAL				279.91 Y
	Add 15% CPOH on "Y"				41.99

	TOTAL				321.89 Z
	Add Cess @ 1% on "Z"				3.22
	Cost of each				325.11
	Say				325.10
	FOR DPA 30% LESS				**227.57**

17.70.2 Bottle trap 38 mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 263 gms

Code	Description	Unit	Quantity	Rate	Amount
7494	Details of cost for one no. MATERIAL PTMT Bottle Trap 38/40MM	each	1.00	200.00	200.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				242.99 W
	Add 1 % Water charges on "W"				2.43
	TOTAL				245.42 X
	Add GST on "X" (multiplying factor 0.1405)				34.48
	TOTAL				279.91 Y
	Add 15% CPOH on "Y"				41.99
	TOTAL				321.89 Z
	Add Cess @ 1% on "Z"				3.22
	Cost of each				325.11
	Say				325.10
	FOR DPA 30% LESS				**227.57**

17.71 Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7503	PTMT Liquid Soap Container of 400ml capacity	each	1.00	95.00	95.00
9988	Carriage of materials and fixing charges	L.S.	6.76	2.12	14.33
	TOTAL				109.33 W
	Add 1 % Water charges on "W"				1.09
	TOTAL				110.42 X
	Add GST on "X" (multiplying factor 0.1405)				15.51
	TOTAL				125.94 Y
	Add 15% CPOH on "Y"				18.89
	TOTAL				144.83 Z
	Add Cess @ 1% on "Z"				1.45
	Cost of each				146.28
	Say				146.30
	FOR DPA 30% LESS				**102.41**

17.72 Providing and fixing PTMT towel ring trapezoidal shape 215 mm long, 200 mm wide with minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88 gms.

Code	Description	Unit	Quantity	Rate	Amount
	MATERIAL				

7504	PTMT - Towel Ring 215x200x37mm	each	1.00	110.00	110.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				152.99 W
	Add 1 % Water charges on “W”				1.53
	TOTAL				154.52 X
	Add GST on “X” (multiplying factor 0.1405)				21.71
	TOTAL				176.23 Y
	Add 15% CPOH on “Y”				26.44
	TOTAL				202.67 Z
	Add Cess @ 1% on “Z”				2.03
	Cost of each				204.70
	Say				204.70
	FOR DPA 30% LESS				**143.29**

17.73 Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.

17.73.1 450 mm long towel rail with total length of 495 mm, 78 mm wide and effective height of 88 mm, weighing not less than 170 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7505	PTMT Towel Rail (450mm)	each	1.00	125.00	125.00
	Wooden cleates				
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	35.50	71.00 A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	180.00	10.80
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.17	714.00	121.38
0114	Beldar	day	0.17	645.00	109.65
	TOTAL				446.65 W
	Add 1 % Water charges on "W-A"				3.76
	TOTAL				450.41 X
	Add GST on "X-A" (multiplying factor 0.1405)				53.31
	TOTAL				503.71 Y
	Add 15% CPOH on "Y-A"				64.91
	TOTAL				568.62 Z
	Add Cess @ 1% on "Z-A"				4.98
	Cost of each				573.60
	Say				573.60
	FOR DPA 30% LESS				**401.52**

17.73.2 600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7506	PTMT Towel Rail (600mm)	each	1.00	145.00	145.00
	Wooden cleates				

8.23	Rate as per item no 8.23 of				
	SH : Cladding work	each	2.00	35.50	71.00 A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	180.00	10.80
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.17	714.00	121.38
0114	Beldar	day	0.17	645.00	109.65
	TOTAL				466.65 W
	Add 1 % Water charges on "W-A"				3.96
	TOTAL				470.61 X
	Add GST on "X-A" (multiplying factor 0.1405)				56.14
	TOTAL				526.75 Y
	Add 15% CPOH on "Y-A"				68.36
	TOTAL				595.11 Z
	Add Cess @ 1% on "Z-A"				5.24
	Cost of each				600.35
	Say				600.35
	FOR DPA 30% LESS				**420.25**

17.74 Providing and fixing PTMT shelf 440 mm long, 124 mm width and 36 mm height of approved quality and colour, weighing not less than 300 gms.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7507	PTMT Shelf 450x124x36mm	each	1.00	150.00	150.00
	Wooden cleates				
8.23	Rate as per item no 8.23 of				
	SH : Cladding work	each	2.00	35.50	71.00 A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	180.00	10.80
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.17	714.00	121.38
0114	Beldar	day	0.17	645.00	109.65
	TOTAL				471.65 W
	Add 1 % Water charges on "W-A"				4.01
	TOTAL				475.66 X
	Add GST on "X-A" (multiplying factor 0.1405)				56.85
	TOTAL				532.51 Y
	Add 15% CPOH on "Y-A"				69.23
	TOTAL				601.74 Z
	Add Cess @ 1% on "Z-A"				5.31
	Cost of each				607.04
	Say				607.05
	FOR DPA 30% LESS				**424.94**

17.75 Providing and fixing PTMT 15 mm Urinal spreader size 95x69x100 mm with 1/2" BSP thread and shapes, weighing not less than 60 gms.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7508	PTMT Urinal Spreader 15mm	each	1.00	55.00	55.00

9988	Carriage of materials and fixing charges	L.S.	6.76	2.12	14.33
	TOTAL				69.33 W
	Add 1 % Water charges on "W"				0.69
	TOTAL				70.02 X
	Add GST on "X" (multiplying factor 0.1405)				9.84
	TOTAL				79.86 Y
	Add 15% CPOH on "Y"				11.98
	TOTAL				91.84 Z
	Add Cess @ 1% on "Z"				0.92
	Cost of each				92.76
	Say				92.75
	FOR DPA 30% LESS				**64.93**

17.76 Providing and fixing PTMT urinal cock of approved quality and colour.

17.76.1 15 mm nominal bore, 80 mm long, 42 mm high and 30mm wide with BSP female threads weighing not less than 48 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
7858	P.T.M.T. Urinal cock 15mm dia	each	1.00	95.00	95.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				112.09 W
	Add 1 % Water charges on "W"				1.12
	TOTAL				113.21 X
	Add GST on "X" (multiplying factor 0.1405)				15.91
	TOTAL				129.11 Y
	Add 15% CPOH on "Y"				19.37
	TOTAL				148.48 Z
	Add Cess @ 1% on "Z"				1.48
	Cost of each				149.97
	Say				149.95
	FOR DPA 30% LESS				**104.97**

17.77 Providing and fixing M.S. holder bat clamp of approved design to sand cast iron/ cast iron (spun) pipes comprising of M.S. flat brackets made of 50x5 mm flat of specified shape, projecting 75 mm outside the wall surface and fixed on wall with 4nos, 6mm dia expansion hold fasteners, including drilling necessary holes in brick wall/ CC/ RCC surface and the cost of bolts etc. The pipes shall be fixed to the already fixed brackets with the help of 30 mm x1.6 mm galvanised M.S. flats of specified shape and of total length 420 mm and shall be fixed with M.S. nuts, bolts, & washers of size 25x6 mm, one bolts on each side of the pipe.

17.77.1 Total bracket length 580 mm of approved shape and design (for single 100 mm dia pipe)

Code	Description	Unit	Quantity	Rate	Amount

1007 2205 0116 0103 0114	Details of cost for 5 nos. MATERIAL M.S. flats 50x5mm 5 x 0.58 = 2.90m @ 1.97 kg/ metre = 5.71 kg. M.S. flats 30x1.6mm 5x0.42 = 2.10m. 0.38kg/metre = 0.80kg. Total = 6.51kg. Add wastage 5% = 0.33kg. Total = 6.86 kg.= 0.0686 quintal Structurals such as tees,angles channels and R.S. joists Carriage of Steel LABOUR Fitter (grade 1) Blacksmith 2nd class Beldar priming coat 5x0.58x0.11 = 0.32 5x0.42x0.063 = 0.13 Total=0.45sqm	quintal tonne day day day	0.0686 0.0068 0.033 0.049 0.065	4950.00 145.72 784.00 714.00 645.00	339.57 0.99 25.87 34.99 41.93
13.50.1	Rate as per item no 13.50.1 of				
	SH : Finishing	sqm	0.45	61.45	27.65 A
9999	Sundries	L.S.	1.35	2.12	2.86
	P/F expansion hold fasteners 6mm threaded dia 5x4 Nos = 20 nos.				
8.8.1.1	Rate asper item no. 8.8.1.1 of				
	SH :- Marble work	each	20.00	30.75	615.00 A
	TOTAL				1088.86 W
	Add 1 % Water charges on "W-A"				4.46
	TOTAL				1093.32 X
	Add GST on "X-A" (multiplying factor 0.1405)				63.32
	TOTAL				1156.64 Y
	Add 15% CPOH on "Y-A"				77.10
	TOTAL				1233.74 Z
	Add Cess @ 1% on "Z-A"				5.91
	Cost of 5 Nos.				1239.65
	Cost of each				247.93
	Say				247.95
	FOR DPA 30% LESS				**173.565**

17.77.2 Total bracket length 810 mm of approved shape and design (for two 100 mm dia pipes)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 nos. MATERIAL M.S. flats 50x5mm 5 x 0.81 = 4.05m @ 1.97 kg/ metre = 7.98 kg. M.S. flats 30x1.6mm 5x2x0.42 = 4.20m. 0.38kg/metre = 1.60kg. Total = 9.58kg. Add wastage 5% = 0.48kg. Total = 10.06 kg. M.S.flats 10.06kg. = 0.1006 quintal				
1007	Structurals such as tees,angles channels and R.S. joists	quintal	0.1006	4950.00	497.97
2205	Carriage of Steel	tonne	0.01006	145.72	1.47
	LABOUR				
0116	Fitter (grade 1)	day	0.048	784.00	37.63

0103	Blacksmith 2nd class	day	0.072	714.00	51.41
0114	Beldar	day	0.096	645.00	61.92
	priming coat 5x0.81x0.11 = 0.45 5x2x0.42x0.063 = 0.26 Total =0.71sqm				
13.50.1	Rate as per item no 13.50.1 of SH : Finishing	sqm	0.71	61.45	43.63 A
9999	Sundries	L.S.	1.98	2.12	4.20
	P/F expansion hold fasteners 6mm threaded dia 5x4 Nos = 20 nos.				
8.8.1.1	Rate asper item no. 8.8.1.1 of SH :- Marble work	each	20.00	30.75	615.00 A
	TOTAL				1313.22 W
	Add 1 % Water charges on "W-A"				6.55
	TOTAL				1319.77 X
	Add GST on "X-A" (multiplying factor 0.1405)				92.89
	TOTAL				1412.66 Y
	Add 15% CPOH on "Y-A"				113.10
	TOTAL				1525.76 Z
	Add Cess @ 1% on "Z-A"				8.67
	Cost of 5 Nos.				1534.43
	Cost of each				306.89
	Say				306.90
	FOR DPA 30% LESS				**214.83**

17.77.3 Total bracket length 1040 mm of approved shape and design (for three 100 mm dia pipes)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 nos.				
	MATERIAL				
	M.S. flats 50x5mm 5 x 1.04= 5.20m @ 1.97 kg/ metre = 10.24 kg. M.S. flats 30x1.6mm 5x3x0.42 = 6.30m. 0.38kg/metre = 2.39kg. Total = 12.63kg. Add wastage 5% = 0.63kg. Total = 13.26 kg. M.S.flats 13.26kg. = 0.1326 quintal				
1007	Structurals such as tees,angles channels and R.S. joists	quintal	0.1326	4950.00	656.37
2205	Carriage of Steel	tonne	0.01326	145.72	1.93
	LABOUR				
0116	Fitter (grade 1)	day	0.063	784.00	49.39
0103	Blacksmith 2nd class	day	0.095	714.00	67.83
0114	Beldar	day	0.126	645.00	81.27
	priming coat 5x1.04x0.11 = 0.57 5x3x0.42x0.063 = 0.40 Total=0.97sqm				
13.50.1	Rate as per item no 13.50.1 of				

	SH : Finishing	sqm	0.97	61.45	59.61 A
9999	Sundries	L.S.	2.60	2.12	5.51
	P/F expansion hold fasteners 6mm threaded dia 5x4 Nos = 20 nos.				
8.8.1.1	Rate asper item no. 8.8.1.1 of SH :- Marble work	each	20.00	30.75	615.00 A
	TOTAL				1536.91 W
	Add 1 % Water charges on "W-A"				8.62
	TOTAL				1545.54 X
	Add GST on "X-A" (multiplying factor 0.1405)				122.37
	TOTAL				1667.90 Y
	Add 15% CPOH on "Y-A"				148.99
	TOTAL				1816.90 Z
	Add Cess @ 1% on "Z-A"				11.42
	Cost of 5 Nos.				1828.32
	Cost of each				365.66
	Say				365.65
	FOR DPA 30% LESS				**255.96**

17.78 Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/ 6 litre (adjustable to 4 litre/ 8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pan				
	MATERIAL				
7072	Wall mounted water closet	each	1.00	5500.00	5500.00
7073	Adjustable Vetrious China Cistern with fittings	each	1.00	1600.00	1600.00
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	410.00	410.00
9977	Carriage of materials	L.S.	9.79	2.12	20.75
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0123	Mason (brick layer) 1st class	day	1.00	784.00	784.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				9743.75 W
	Add 1 % Water charges on "W"				97.44
	TOTAL				9841.19 X
	Add GST on "X" (multiplying factor 0.1405)				1382.69
	TOTAL				11223.88 Y
	Add 15% CPOH on "Y"				1683.58
	TOTAL				12907.46 Z
	Add Cess @ 1% on "Z"				129.07
	Cost of each				13036.54
	Say				13036.55
	FOR DPA 30% LESS				**9125.59**

17.79 Providing & fixing white vitreous china water less urinal of size 600 x 330 x 315 mm having antibacterial /germs free ceramic surface, fixed with cartridge having debris catcher and hygiene seal.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pan				
	MATERIAL				
7074	White Vetrious China Waterless Urinal	each	1.00	9000.00	9000.00
7075	Cistern with fittings for Waterless Urinal	each	1.00	2200.00	2200.00
9977	Carriage of materials	L.S.	9.79	2.12	20.75
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				11935.25 W
	Add 1 % Water charges on "W"				119.35
	TOTAL				12054.61 X
	Add GST on "X" (multiplying factor 0.1405)				1693.67
	TOTAL				13748.28 Y
	Add 15% CPOH on "Y"				2062.24
	TOTAL				15810.52 Z
	Add Cess @ 1% on "Z"				158.11
	Cost of each				15968.63
	Say				15968.65
	FOR DPA 30% LESS				**11178.06**

17.80 Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pan				
	MATERIAL				
7076	White Vetrious Urinal	each	1.00	4500.00	4500.00
9977	Carriage of materials	L.S.	9.79	2.12	20.75
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				5235.25 W
	Add 1 % Water charges on "W"				52.35
	TOTAL				5287.61 X
	Add GST on "X" (multiplying factor 0.1405)				742.91
	TOTAL				6030.52 Y
	Add 15% CPOH on "Y"				904.58
	TOTAL				6935.09 Z
	Add Cess @ 1% on "Z"				69.35
	Cost of each				7004.44
	Say				7004.45
	FOR DPA 30% LESS				**4903.12**

17.81 Providing and fixing floor mounted, white vitreous china single piece, double traps syphonic water closet of approved brand/make, shape, size and pattern including integrated white vitreous china cistern of capacity 10 litres with dual flushing system, including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc including making connection with the existing P/S trap, complete in all respect as per directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 1 no.				
	MATERIAL				
1966	Floor mounted, white vitreous china single piece, double traps syphonic water closet of approved brand/make, shape, size and pattern including integrated white vitreous china cistern of capacity 10 litres with dual flushing system including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc.	each	1.00	9800.00	9800.00
9977	Carriage of material	L.S.	9.79	2.12	20.75
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0114	Beldar	day	1.00	645.00	645.00
0123	Mason (brick layer) 1st class	day	1.00	784.00	784.00
	TOTAL				12033.75 W
	Add 1 % Water charges on "W"				120.34
	TOTAL				12154.09 X
	Add GST on "X" (multiplying factor 0.1405)				1707.65
	TOTAL				13861.74 Y
	Add 15% CPOH on "Y"				2079.26
	TOTAL				15941.00 Z
	Add Cess @ 1% on "Z"				159.41
	Cost of each				16100.41
	Say				16100.40
	FOR DPA 30% LESS				**11270.28**

SUB HEAD 18
WATER SUPPLY

18.1 Providing and fixing Polyethelene-Aluminium-Polyethelene PE-AL-PE Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80°C, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with clamps at 1.00 metre spacing. This includes testing of joints complete as per direction of the Engineer-in- charge.

INTERNAL WORK - EXPOSED ON WALL

18.1.1 1216 (16 mm OD) pipe

Code	Description	Unit	Quantity		Amount
	Details of cost for 10 metre				
	MATERIAL				
8300	1216 mm PE-AL-PE Composit pressure pipe	metre	10.00		800.00 P
	Add 30% for fittings and wastage etc. on (P) 30 x P / 100				240.00
9999	Cement, sand and grit	L.S.	2.73		5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33		258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66		471.24
0114	Beldar	day	0.66		425.70
	TOTAL				2201.45 W
	Add 1 % Water charges on "W"				22.01
	TOTAL				2223.46 X
	Add GST on "X" (multiplying factor 0.1405)				312.40
	TOTAL				2535.86 Y
	Add 15% CPOH on "Y"				380.38
	TOTAL				2916.24 Z
	Add Cess @ 1% on "Z"				29.16
	Cost of 10 metre				2945.40
	Cost of 1 metre				294.54
	Say				294.55
	FOR DPA 30% LESS				**206.19**

18.1.2 1620 (20 mm OD) pipe

Code	Description	Unit	Quantity	Rate	Amount
8301 9999 0116 0117	Details of cost for 10 metre MATERIAL 1620 mm PE-AL-PE Composit pressure pipe Add 30% for fittings and wastage etc. on (P) 30 x P / 100 Cement, sand and grit LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	metre L.S. day day	10.00 2.73 0.33 0.82		900.00 P 270.00 5.79 258.72 585.48
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2445.69 W
	Add 1 % Water charges on "W"				24.46
	TOTAL				2470.14 X
	Add GST on "X" (multiplying factor 0.1405)				347.06
	TOTAL				2817.20 Y
	Add 15% CPOH on "Y"				422.58
	TOTAL				3239.78 Z
	Add Cess @ 1% on "Z"				32.40
	Cost of 10 metre				3272.18
	Cost of 1 metre				327.22
	Say				327.20
	FOR DPA 30% LESS				**229.04**

18.1.3 2025 (25 mm OD) pipe

Code	Description	Unit	Quantity		Amount
	Details of cost for 10 metre				
	MATERIAL				
8302	2025 mm PE-AL-PE Composit pressure pipe	metre	10.00		1400.00 P

	Add 30% for fittings and wastage etc.				
	on (P)				420.00
	30 x P / 100				
9999	Cement, sand and grit	L.S.	2.73		5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33		258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98		699.72
0114	Beldar	day	0.66		425.70
	TOTAL				3209.93 W
	Add 1 % Water charges on "W"				32.10
	TOTAL				3242.03 X
	Add GST on "X" (multiplying				
	factor 0.1405)				455.50
	TOTAL				3697.53 Y
	Add 15% CPOH on "Y"				554.63
	TOTAL				4252.16 Z
	Add Cess @ 1% on "Z"				42.52
	Cost of 10 metre				4294.68
	Cost of 1 metre				429.47
	Say				429.45
	FOR DPA 30% LESS				**300.62**

18.1.4 2532 (32 mm OD) pipe

Code	Description	Unit	Quantity	Rate	Amount
8303	Details of cost for 10 metre MATERIAL				
9999	2532 mm PE-AL-PE Composit pressure pipe	metre	10.00	180.00	1800.00 P
	Add 30% for fittings and wastage etc. on (P)	L.S.	4.16	2.12	540.00
	30 x P / 100				8.82
	Cement, sand and grit				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.98	645.00	632.10
	TOTAL				3939.36 W
	Add 1 % Water charges on "W"				39.39
	TOTAL				3978.75 X
	Add GST on "X" (multiplying				
	factor 0.1405)				559.01
	TOTAL				4537.77 Y
	Add 15% CPOH on "Y"				680.67
	TOTAL				5218.43 Z
	Add Cess @ 1% on "Z"				52.18
	Cost of 10 metre				5270.62
	Cost of 1 metre				527.06
	Say				527.05
	FOR DPA 30% LESS				**368.94**

18.1.5 3240 (40 mm OD) pipe

Code	Description	Unit	Quantity		Amount
	Details of cost for 10 metre				
	MATERIAL				
8304	3240 mm PE-AL-PE Composit				
	pressure pipe	metre	10.00		2800.00 P
	Add 30% for fittings and wastage				
	etc. on (P)				840.00
	30 x P / 100				
9999	Cement, sand and grit	L.S.	5.33		11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33		258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.31		935.34
0114	Beldar	day	1.31		844.95
	TOTAL				5690.31 W
	Add 1 % Water charges on "W"				56.90
	TOTAL				5747.21 X
	Add GST on "X" (multiplying				
	factor 0.1405)				807.48

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				6554.70 Y
	Add 15% CPOH on "Y"				983.20
	TOTAL				7537.90 Z
	Add Cess @ 1% on "Z"				75.38
	Cost of 10 metre				7613.28
	Cost of 1 metre				761.33
	Say				761.35
	FOR DPA 30% LESS				532.95

18.1.6 4050 (50 mm OD) pipe

Code	Description	Unit	Quantity	Rate	Amount
8305	Details of cost for 10 metre MATERIAL 4050 mm PE-AL-PE Composit pressure pipe	metre	10.00	360.00	3600.00 P
	Add 30% for fittings and wastage etc. on (P)				1080.00
	30 x P / 100				
9999	Cement, sand and grit	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.31	714.00	935.34
0114	Beldar	day	1.31	645.00	844.95
	TOTAL				6730.31 W
	Add 1 % Water charges on "W"				67.30
	TOTAL				6797.61 X
	Add GST on "X" (multiplying factor 0.1405)				955.06
	TOTAL				7752.68 Y
	Add 15% CPOH on "Y"				1162.90
	TOTAL				8915.58 Z
	Add Cess @ 1% on "Z"				89.16
	Cost of 10 metre				9004.73
	Cost of 1 metre				900.47
	Say				900.45
	FOR DPA 30% LESS				**630.32**

18.2 Providing and fixing Polyethelene-Aluminium- Polyethelene PE-AL-PE Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80°C, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with clamps at 1.00 metre spacing. This includes the costs of cutting chases and including testing of joints complete as per direction of the engineer in charge.

Concealed work, including cutting chases and making good the wall etc.

18.2.1 1216 (16 mm OD) pipe

Code	Description	Unit	Quantity	Rate	Amount
8300 18.78 0116 0117	Details of cost for 10 metre MATERIAL 1216 mm PE-AL-PE Composit pressure pipe Add 75% for fittings, clamps and wastage etc. on (P) 75 x P / 100 Making chases upto 7.5 x 7.5 cm. in walls and making good the same Rate as per item no. 18.78 of SH: Water Supply LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	metre metre day day	10.00 10.00 0.33 0.66	80.00 171.80 784.00 714.00	800.00 P 600.00 1718.00 A 258.72 471.24

Code	Description	Unit	Quantity	Rate	Amount
0114	Beldar	day	0.66	645.00	425.7
	TOTAL				4273.66 W
	Add 1 % Water charges on "W-A"				25.56
	TOTAL				4299.22 X
	Add GST on "X-A" (multiplying factor 0.1405)				362.66
	TOTAL				4661.88 Y
	Add 15% CPOH on "Y-A"				441.58
	TOTAL				5103.46 Z
	Add Cess @ 1% on "Z-A"				33.85
	Cost of 10 metre				5137.31

Code	Description	Unit	Quantity	Rate	Amount
	Cost of 1 metre				513.73
	Say				513.75
	FOR DPA 30% LESS				**359.625**

18.2.2 1620 (20 mm OD) pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8301	1620 mm PE-AL-PE Composit				
	pressure pipe	metre	10.00	90.00	900.00 P
	Add 75% for fittings, clamps and				
	wastage etc. on (P)				675.00
	75 * P / 100				
	Making chases upto 7.5 x 7.5 cm.				
	in walls and making good the same				
18.78	Rate as per item no. 18.78 of				
	SH: water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4448.66 W
	Add 1 % Water charges on "W-A"				27.31
	TOTAL				4475.97 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				387.49
	TOTAL				4863.46 Y
	Add 15% CPOH on "Y-A"				471.82
	TOTAL				5335.28 Z
	Add Cess @ 1% on "Z-A"				36.17
	Cost of 10 metre				5371.45
	Cost of 1 metre				537.15
	Say				537.15
	FOR DPA 30% LESS				**376.01**

18.2.3 2025 (25 mm OD) pipe

Code	Description	Unit	Quantity	Rate	Amount
8302	Details of cost for 10 metre MATERIAL 2025 mm PE-AL-PE Composit pressure pipe	metre	10.00	140.00	1400.00 P
	Add 75% for fittings, clamps and				
	wastage etc. on (P)				1050.00
	75 x P / 100				
	Making chases upto 7.5 x 7.5 cm.				
	in walls and making good the same				
18.78	Rate as per item no. 18.78 of				
	SH: Water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				5323.66 W
	Add 1 % Water charges on "W-A"				36.06
	TOTAL				5359.72 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				511.66
	TOTAL				5871.38 Y
	Add 15% CPOH on "Y-A"				623.01
	TOTAL				6494.38 Z
	Add Cess @ 1% on "Z-A"				47.76
	Cost of 10 metre				6542.15
	Cost of 1 metre				654.21
	Say				654.20
	FOR DPA 30% LESS				**457.94**

18.2.4 2532 (32 mm OD) pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				

	MATERIAL				
8303	2532 mm PE-AL-PE Composit				
	pressure pipe	metre	10.00	180.00	1800.00 P
	Add 75% for fittings, clamps and				
	wastage etc. on (P)				1350.00
	75 x P / 100				
	Making chases upto 7.5 x 7.5 cm.				
	in walls and making good the same				
18.78	Rate as per item no. 18.78 of				
	SH: Water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				6023.66 W
	Add 1 % Water charges on "W-A"				43.06
	TOTAL				6066.72 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				610.99
	TOTAL				6677.71 Y
	Add 15% CPOH on "Y-A"				743.96
	TOTAL				7421.67 Z
	Add Cess @ 1% on "Z-A"				57.04
	Cost of 10 metre				7478.70
	Cost of 1 metre				747.87
	Say				747.85
	FOR DPA 30% LESS				**523.495**

18.3 **Providing and fixing Polyethelene-Aluminium- Polyethelene PE-AL-PE Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80°C, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with trenching, refilling and testing of joints complete as per direction of the engineer in charge.**

External work

18.3.1 1216 (16 mm OD) pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8300	1216 mm PE-AL-PE Composit				
	pressure pipe	metre	10.00	80.00	800.00 P
	Add 30% for fittings and wastage				
	etc. on (P)				240.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2057.32 W
	Add 1 % Water charges on "W"				20.57
	TOTAL				2077.89 X
	Add GST on "X" (multiplying				
	factor 0.1405)				291.94
	TOTAL				2369.84 Y
	Add 15% CPOH on "Y"				355.48
	TOTAL				2725.31 Z
	Add Cess @ 1% on "Z"				27.25
	Cost of 10 metre				2752.57
	Cost of 1 metre				275.26
	Say				275.25
	FOR DPA 30% LESS				**192.68**

18.3.2 1620 (20 mm OD) pipe

Code	Description	Unit	Quantity	Rate	Amount
8301	Details of cost for 10 metre MATERIAL	metre	10.00	90.00	900.00 P 270.00
0116	1620 mm PE-AL-PE Composit pressure pipe	day day	0.08	784.00	62.72
0114	Add 30% for fittings and wastage etc. on (P)	day	0.16	645.00	103.20
0114	30 x P / 100 LABOUR		0.66	645.00	425.70
	Fitter (grade 1) Beldar				
	Trenching and refilling etc. Beldar				
Code	**Description**	**Unit**	**Quantity**		**Amount**
0115	Coolie	day	0.66		425.70
	TOTAL				2187.32 W
	Add 1 % Water charges on "W"				21.87
	TOTAL				2209.19 X
	Add GST on "X" (multiplying factor 0.1405)				310.39
	TOTAL				2519.58 Y
	Add 15% CPOH on "Y"				377.94
	TOTAL				2897.52 Z
	Add Cess @ 1% on "Z"				28.98
	Cost of 10 metre				2926.50
	Cost of 1 metre				292.65
	Say				292.65
	FOR DPA 30% LESS				**204.86**

18.3.3 2025 (25 mm OD) pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8302	2025 mm PE-AL-PE Composit pressure pipe	metre	10.00	140.00	1400.00 P
	Add 30% for fittings and wastage etc. on (P)				420.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2837.32 W
	Add 1 % Water charges on “W”				28.37
	TOTAL				2865.69 X
	Add GST on “X” (multiplying factor 0.1405)				402.63
	TOTAL				3268.32 Y
	Add 15% CPOH on “Y”				490.25
	TOTAL				3758.57 Z
	Add Cess @ 1% on “Z”				37.59
	Cost of 10 metre				3796.16
	Cost of 1 metre				379.62
	Say				379.60
	FOR DPA 30% LESS				**265.72**

18.3.4 2532 (32 mm OD) pipe

Code	Description	Unit	Quantity	Rate	Amount
8303	Details of cost for 10 metre MATERIAL				
	2532 mm PE-AL-PE Composit pressure pipe	metre	10.00	180.00	1800.00 P
	Add 30% for fittings and wastage etc. on (P)				540.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				3357.32 W
	Add 1 % Water charges on "W"				33.57
	TOTAL				3390.89 X
	Add GST on "X" (multiplying				

	factor 0.1405)				476.42
	TOTAL				3867.31 Y
	Add 15% CPOH on "Y"				580.10
	TOTAL				4447.41 Z
	Add Cess @ 1% on "Z"				44.47
	Cost of 10 metre				4491.88
	Cost of 1 metre				449.19
	Say				449.20
	FOR DPA 30% LESS				**314.44**

18.3.5	**3240 (40 mm OD) pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	MATERIAL				
8304	3240 mm PE-AL-PE Composit				
	pressure pipe	metre	10.00	280.00	2800.00 P
	Add 30% for fittings and wastage				
	etc. on (P)				840.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				4829.69 W
	Add 1 % Water charges on "W"				48.30
	TOTAL				4877.99 X
	Add GST on "X" (multiplying				
	factor 0.1405)				685.36
	TOTAL				5563.34 Y
	Add 15% CPOH on "Y"				834.50
	TOTAL				6397.85 Z
	Add Cess @ 1% on "Z"				63.98
	Cost of 10 metre				6461.82
	Cost of 1 metre				646.18
	Say				646.20
	FOR DPA 30% LESS				**452.34**

18.3.6	**4050 (50 mm OD) pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	MATERIAL				
8305	4050 mm PE-AL-PE Composit				
	pressure pipe	metre	10.00	360.00	3600.00 P
	Add 30% for fittings and wastage				
	etc. on (P)				1080.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				5869.69 W
	Add 1 % Water charges on "W"				58.70
	TOTAL				5928.39 X
	Add GST on "X" (multiplying				
	factor 0.1405)				832.94
	TOTAL				6761.33 Y
	Add 15% CPOH on "Y"				1014.20
	TOTAL				7775.52 Z
	Add Cess @ 1% on "Z"				77.76
	Cost of 10 metre				7853.28
	Cost of 1 metre				785.33

	Say				785.35
	FOR DPA 30% LESS				**549.75**

18.4 Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.

Internal work - Exposed on wall

18.4.1 15 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8636	Chlorinated Polyvinyl - chloride (CPVC)				
	pipe 15 mm nominal dia.	metre	10.00	49.00	490.00 P
	Add 30% for fittings and wastage				
	etc. on (P)				147.00
	30 x P / 100				
9999	Cement, sand and grit etc.	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.82	714.00	585.48
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				1912.69 W
	Add 1 % Water charges on "W"				19.13
	TOTAL				1931.81 X
	Add GST on "X" (multiplying				
	factor 0.1405)				271.42
	TOTAL				2203.23 Y
	Add 15% CPOH on "Y"				330.49
	TOTAL				2533.72 Z
	Add Cess @ 1% on "Z"				25.34
	Cost of 10 metre				2559.06
	Cost of 1 metre				255.91
	Say				255.90
	FOR DPA 30% LESS				**179.13**

18.4.2 20 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
8637 9999 0116 0117	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm nominal dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100 Cement, sand and grit etc. LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	metre L.S. day day	10.00 2.73 0.33 0.98	80.00 2.12 784.00 714.00	800.00 P 240.00 5.79 258.72 699.72
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2429.93 W
	Add 1 % Water charges on "W"				24.30
	TOTAL				2454.23 X
	Add GST on "X" (multiplying				
	factor 0.1405)				344.82
	TOTAL				2799.05 Y
	Add 15% CPOH on "Y"				419.86
	TOTAL				3218.90 Z
	Add Cess @ 1% on "Z"				32.19
	Cost of 10 metre				3251.09
	Cost of 1 metre				325.11
	Say				325.10
	FOR DPA 30% LESS				227.57

18.4.3 25 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8638	Chlorinated Polyvinyl - chloride (CPVC)				
	pipe 25 mm nominal dia.	metre	10.00	127.97	1279.70 P
	Add 30% for fittings and wastage				
	etc. on (P)				383.91

	30 x P / 100				
9999	Cement, sand and grit etc.	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				3053.54 W
	Add 1 % Water charges on "W"				30.54
	TOTAL				3084.07 X
	Add GST on "X" (multiplying factor 0.1405)				433.31
	TOTAL				3517.39 Y
	Add 15% CPOH on "Y"				527.61
	TOTAL				4044.99 Z
	Add Cess @ 1% on "Z"				40.45
	Cost of 10 metre				4085.44
	Cost of 1 metre				408.54
	Say				408.55
	FOR DPA 30% LESS				**285.99**

18.4.4 32 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
8639 9999	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm nominal dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100 Cement, sand and grit etc.	metre L.S.	10.00 4.16	165.00 2.12	1650.00 P 495.00 8.82
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.98	645.00	632.10
	TOTAL				3744.36 W
	Add 1 % Water charges on "W"				37.44
	TOTAL				3781.80 X
	Add GST on "X" (multiplying factor 0.1405)				531.34
	TOTAL				4313.15 Y
	Add 15% CPOH on "Y"				646.97
	TOTAL				4960.12 Z
	Add Cess @ 1% on "Z"				49.60
	Cost of 10 metre				5009.72
	Cost of 1 metre				500.97
	Say				500.95
	FOR DPA 30% LESS				**350.67**

18.4.5 40 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8640	Chlorinated Polyvinyl - chloride (CPVC) pipe 40 mm nominal dia.	metre	10.00	230.00	2300.00 P
	Add 30% for fittings and wastage etc. on (P)				690.00
	30 x P / 100				
9999	Cement, sand and grit etc.	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.31	714.00	935.34
0114	Beldar	day	1.31	645.00	844.95
	TOTAL				5040.31 W
	Add 1 % Water charges on "W"				50.40
	TOTAL				5090.71 X
	Add GST on "X" (multiplying factor 0.1405)				715.25
	TOTAL				5805.96 Y
	Add 15% CPOH on "Y"				870.89

	TOTAL				6676.85 Z
	Add Cess @ 1% on "Z"				66.77
	Cost of 10 metre				6743.62
	Cost of 1 metre				674.36
	Say				674.35
	FOR DPA 30% LESS				**472.05**

18.4.6 50 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8641	Chlorinated Polyvinyl - chloride				
	(CPVC) pipe 50 mm nominal dia.	metre	10.00	375.25	3752.50 P
	Add 30% for fittings and wastage				
	etc. on (P)				1125.75
	30 x P / 100				
9999	Cement, sand and grit etc.	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.31	714.00	935.34
0114	Beldar	day	1.31	645.00	844.95
	TOTAL				6928.56 W
	Add 1 % Water charges on "W"				69.29
	TOTAL				6997.85 X
	Add GST on "X" (multiplying				
	factor 0.1405)				983.20
	TOTAL				7981.04 Y
	Add 15% CPOH on "Y"				1197.16
	TOTAL				9178.20 Z
	Add Cess @ 1% on "Z"				91.78
	Cost of 10 metre				9269.98
	Cost of 1 metre				927.00
	Say				927.00
	FOR DPA 30% LESS				**648.90**

18.5 Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.

Concealed work, including cutting chases and making good the walls etc.

18.5.1 15 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
8636 18.78 0116 0117	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm nominal dia. Add 75% for fittings, clamps and wastage etc. on (P) 75 x P / 100 Making chases upto 7.5 x 7.5 cm. in walls and making good the same Rate as per item no. 18.78 Of SH: Water Supply LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	metre metre day day	10.00 10.00 0.33 0.66	49.00 171.80 784.00 714.00	490.00 P 367.50 1718.00 A 258.72 471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				3731.16 W
	Add 1 % Water charges on "W-A"				20.13
	TOTAL				3751.29 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				285.68
	TOTAL				4036.97 Y
	Add 15% CPOH on "Y-A"				347.85
	TOTAL				4384.81 Z
	Add Cess @ 1% on "Z-A"				26.67
	Cost of 10 metre				4411.48
	Cost of 1 metre				441.15
	Say				441.15
	FOR DPA 30% LESS				**308.81**

18.5.2	20 mm nominal dia Pipes				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	MATERIAL				
8637	Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm nominal dia.	metre	10.00	80.00	800.00 P
	Add 75% for fittings, clamps and wastage etc. on (P) 75 x P / 100				600.00
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same				
18.78	Rate as per item no. 18.78 Of SH: Water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4273.66 W
	Add 1 % Water charges on "W-A"				25.56
	TOTAL				4299.22 X
	Add GST on "X-A" (multiplying factor 0.1405)				362.66
	TOTAL				4661.88 Y
	Add 15% CPOH on "Y-A"				441.58
	TOTAL				5103.46 Z
	Add Cess @ 1% on "Z-A"				33.85
	Cost of 10 metre				5137.31
	Cost of 1 metre				513.73
	Say				513.75
	FOR DPA 30% LESS				**359.63**

18.5.3	25 mm nominal dia Pipes				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	MATERIAL				
8638	Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm nominal dia.	metre	10.00	127.97	1279.70 P
	Add 75% for fittings, clamps and wastage etc. on (P) 75 x P / 100				959.78
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same				
18.78	Rate as per item no. 18.78 Of SH: Water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				5113.14 W
	Add 1 % Water charges on "W-A"				33.95
	TOTAL				5147.09 X
	Add GST on "X-A" (multiplying factor 0.1405)				481.79
	TOTAL				5628.87 Y
	Add 15% CPOH on "Y-A"				586.63
	TOTAL				6215.50 Z
	Add Cess @ 1% on "Z-A"				44.98
	Cost of 10 metre				6260.48
	Cost of 1 metre				626.05
	Say				626.05
	FOR DPA 30% LESS				**438.24**

18.5.4	32 mm nominal dia Pipes				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**

8639 18.78 0116 0117	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm nominal dia. Add 75% for fittings, clamps and wastage etc. on (P) 75 x P / 100 Making chases upto 7.5 x 7.5 cm. in walls and making good the same Rate as per item no. 18.78 Of SH: Water Supply LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	metre metre day day	10.00 10.00 0.33 0.66	165.00 171.80 784.00 714.00	1650.00 P 1237.50 1718.00 A 258.72 471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				5761.16 W
	Add 1 % Water charges on "W-A"				40.43
	TOTAL				5801.59 X
	Add GST on "X-A" (multiplying factor 0.1405)				573.74
	TOTAL				6375.34 Y
	Add 15% CPOH on "Y-A"				698.60
	TOTAL				7073.94 Z
	Add Cess @ 1% on "Z-A"				53.56
	Cost of 10 metre				7127.50
	Cost of 1 metre				712.75
	Say				712.75
	FOR DPA 30% LESS				**498.93**

18.6 Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge.

External work

18.6.1 15 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8636	Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm nominal dia.	metre	10.00	49.00	490.00 P
	Add 30% for fittings and wastage etc. on (P)				147.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				1654.32 W
	Add 1 % Water charges on "W"				16.54
	TOTAL				1670.86 X
	Add GST on "X" (multiplying factor 0.1405)				234.76
	TOTAL				1905.62 Y
	Add 15% CPOH on "Y"				285.84
	TOTAL				2191.46 Z
	Add Cess @ 1% on "Z"				21.91
	Cost of 10 metre				2213.38
	Cost of 1 metre				221.34
	Say				221.35
	FOR DPA 30% LESS				**154.95**

18.6.2 20 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8637	Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm nominal dia.	metre	10.00	80.00	800.00 P
	Add 30% for fittings and wastage etc. on (P)				240.00

	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2057.32 W
	Add 1 % Water charges on "W"				20.57
	TOTAL				2077.89 X
	Add GST on "X" (multiplying factor 0.1405)				291.94
	TOTAL				2369.84 Y
	Add 15% CPOH on "Y"				355.48
	TOTAL				2725.31 Z
	Add Cess @ 1% on "Z"				27.25
	Cost of 10 metre				2752.57
	Cost of 1 metre				275.26
	Say				275.25
	FOR DPA 30% LESS				192.68

18.6.3	**25 mm nominal dia Pipes**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	MATERIAL				
8638	Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm nominal dia.	metre	10.00	127.97	1279.70 P
	Add 30% for fittings and wastage etc. on (P)				383.91
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.12	784.00	94.08
0114	Beldar	day	0.25	645.00	161.25
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2770.34 W
	Add 1 % Water charges on "W"				27.70
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				393.13
	TOTAL				3191.17 Y
	Add 15% CPOH on "Y"				478.68
	TOTAL				3669.84 Z
	Add Cess @ 1% on "Z"				36.70
	Cost of 10 metre				3706.54
	Cost of 1 metre				370.65
	Say				370.65
	FOR DPA 30% LESS				259.46

18.6.4	**32 mm nominal dia Pipes**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	MATERIAL				
8639	Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm nominal dia.	metre	10.00	165.00	1650.00 P
	Add 30% for fittings and wastage etc. on (P)				495.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.12	784.00	94.08
0114	Beldar	day	0.25	645.00	161.25
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				3251.73 W
	Add 1 % Water charges on "W"				32.52

	TOTAL				3284.25 X
	Add GST on "X" (multiplying factor 0.1405)				461.44
	TOTAL				3745.68 Y
	Add 15% CPOH on "Y"				561.85
	TOTAL				4307.54 Z
	Add Cess @ 1% on "Z"				43.08
	Cost of 10 metre				4350.61
	Cost of 1 metre				435.06
	Say				435.05
	FOR DPA 30% LESS				304.54

18.6.5 40 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8640	Chlorinated Polyvinyl - chloride (CPVC) pipe 40 mm nominal dia.	metre	10.00	230.00	2300.00 P
	Add 30% for fittings and wastage etc. on (P)				690.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				4179.69 W
	Add 1 % Water charges on "W"				41.80
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				593.12
	TOTAL				4814.61 Y
	Add 15% CPOH on "Y"				722.19
	TOTAL				5536.80 Z
	Add Cess @ 1% on "Z"				55.37
	Cost of 10 metre				5592.16
	Cost of 1 metre				559.22
	Say				559.20
	FOR DPA 30% LESS				**391.44**

18.7.6 50 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8641	Chlorinated Polyvinyl - chloride (CPVC) pipe 50 mm nominal dia.	metre	10.00	375.25	3752.50 P
	Add 30% for fittings and wastage etc. on (P)				1125.75
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				6067.94 W
	Add 1 % Water charges on "W"				60.68
	TOTAL				6128.62 X
	Add GST on "X" (multiplying factor 0.1405)				861.07
	TOTAL				6989.69 Y
	Add 15% CPOH on "Y"				1048.45
	TOTAL				8038.14 Z
	Add Cess @ 1% on "Z"				80.38
	Cost of 10 metre				8118.53
	Cost of 1 metre				811.85

	Say				811.85
	FOR DPA 30% LESS				**568.30**

18.6.7 65 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8642	Chlorinated Polyvinyl - chloride (CPVC) pipe 65 mm nominal dia.	metre	10.00	793.30	7933.00 P
	Add 30% for fittings and wastage etc. on (P)				2379.90
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0114	Beldar	day	0.66	645.00	425.70
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				11786.00 W
	Add 1 % Water charges on "W"				117.86
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				1672.49
	TOTAL				13576.35 Y
	Add 15% CPOH on "Y"				2036.45
	TOTAL				15612.81 Z
	Add Cess @ 1% on "Z"				156.13
	Cost of 10 metre				15768.93
	Cost of 1 metre				1576.89
	Say				1576.90
	FOR DPA 30% LESS				**1103.83**

18.6.8 80 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8643	Chlorinated Polyvinyl - chloride (CPVC) pipe 80 mm nominal dia.	metre	10.00	1031.05	10310.50 P
	Add 30% for fittings and wastage etc. on (P)				3093.15
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0114	Beldar	day	0.66	645.00	425.70
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				14876.75 W
	Add 1 % Water charges on "W"				148.77
	TOTAL				15025.52 X
	Add GST on "X" (multiplying factor 0.1405)				2111.09
	TOTAL				17136.60 Y
	Add 15% CPOH on "Y"				2570.49
	TOTAL				19707.09 Z
	Add Cess @ 1% on "Z"				197.07
	Cost of 10 metre				19904.16
	Cost of 1 metre				1990.42
	Say				1990.40
	FOR DPA 30% LESS				1393.28

18.6.9 100 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8644	Chlorinated Polyvinyl - chloride (CPVC) pipe 100 mm nominal dia.	metre	10.00	1466.75	14667.50 P
	Add 30% for fittings and wastage				

	etc. on (P)				4400.25
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.37	784.00	290.08
0114	Beldar	day	0.97	645.00	625.65
	Trenching and refilling etc.				
0114	Beldar	day	0.80	645.00	516.00
0115	Coolie	day	0.80	645.00	516.00
	TOTAL				21015.48 W
	Add 1 % Water charges on "W"				210.15
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				2982.20
	TOTAL				24207.84 Y
	Add 15% CPOH on "Y"				3631.18
	TOTAL				27839.01 Z
	Add Cess @ 1% on "Z"				278.39
	Cost of 10 metre				28117.40
	Cost of 1 metre				2811.74
	Say				2811.75
	FOR DPA 30% LESS				**1968.23**

18.6.10 150 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8645	Chlorinated Polyvinyl - chloride (CPVC) pipe 150 mm nominal dia.	metre	10.00	3145.15	31451.50 P
	Add 30% for fittings and wastage etc. on (P)				9435.45
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.58	784.00	454.72
0114	Beldar	day	1.54	645.00	993.30
	Trenching and refilling etc.				
0114	Beldar	day	1.20	645.00	774.00
0115	Coolie	day	1.20	645.00	774.00
	TOTAL				43882.97 W
	Add 1 % Water charges on "W"				438.83
	TOTAL				44321.80 X
	Add GST on "X" (multiplying factor 0.1405)				6227.21
	TOTAL				50549.01 Y
	Add 15% CPOH on "Y"				7582.35
	TOTAL				58131.36 Z
	Add Cess @ 1% on "Z"				581.31
	Cost of 10 metre				58712.68
	Cost of 1 metre				5871.27
	Say				5871.25
	FOR DPA 30% LESS				**4109.88**

18.7 Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.

Internal work - Exposed on wall

18.7.1 15 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
1545	Details of cost for 10 metre MATERIAL G.I. pipes 15 mm dia	metre	11.50	95.00	1092.50
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 12.30 = 14.145 kg = 0.014145 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.014145	145.72	2.06
9999	White lead, hemp, oil etc.	L.S.	8.06	2.12	17.09
9999	Cement, sand and grit etc.	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2273.10 W

	Add 1 % Water charges on "W"				22.73
	TOTAL				2295.83 X
	Add GST on "X" (multiplying factor 0.1405)				322.56
	TOTAL				2618.39 Y
	Add 15% CPOH on "Y"				392.76
	TOTAL				3011.15 Z
	Add Cess @ 1% on "Z"				30.11
	Cost of 10 metre				3041.26
	Cost of 1 metre				304.13
	Say				304.15
	FOR DPA 30% LESS				**212.91**

18.7.2 20 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1546	G.I. pipes 20 mm dia	metre	11.50	130.00	1495.00
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 15.90= 18.285 kg = 0.018285 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.018285	145.72	2.66
9999	White lead, hemp, oil etc.	L.S.	8.06	2.12	17.09
9999	Cement, sand and grit etc.	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.82	714.00	585.48
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2790.44 W
	Add 1 % Water charges on "W"				27.90
	TOTAL				2818.34 X
	Add GST on "X" (multiplying factor 0.1405)				395.98
	TOTAL				3214.32 Y
	Add 15% CPOH on "Y"				482.15
	TOTAL				3696.47 Z
	Add Cess @ 1% on "Z"				36.96
	Cost of 10 metre				3733.43
	Cost of 1 metre				373.34
	Say				373.35
	FOR DPA 30% LESS				**261.35**

18.7.3 25 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
1547	Details of cost for 10 metre MATERIAL G.I. pipes 25 mm dia Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 24.60 = 28.29 kg = 0.02829 tonne	metre	11.50	196.00	2254.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.02829		4.12
9999	White lead, hemp, oil etc.	L.S.	9.49	2.12	20.12
9999	Cement, sand and grit etc.	L.S.	4.16	2.12	8.82
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				3671.20 W
	Add 1 % Water charges on "W"				36.71
	TOTAL				3707.91 X
	Add GST on "X" (multiplying factor 0.1405)				520.96
	TOTAL				4228.87 Y
	Add 15% CPOH on "Y"				634.33
	TOTAL				4863.21 Z
	Add Cess @ 1% on "Z"				48.63
	Cost of 10 metre				4911.84
	Cost of 1 metre				491.18

	Say				491.20
	FOR DPA 30% LESS				**343.84**

18.7.4 32 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1548	G.I. pipes 32 mm dia	metre	11.50	225.00	2587.50
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 31.70 = 36.455 kg = 0.036455 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.036455	145.72	5.31
9999	White lead, hemp, oil etc.	L.S.	9.49	2.12	20.12
9999	Cement, sand and grit etc.	L.S.	4.16	2.12	8.82
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.98	645.00	632.10
	TOTAL				4212.29 W
	Add 1 % Water charges on "W"				42.12
	TOTAL				4254.41 X
	Add GST on "X" (multiplying factor 0.1405)				597.75
	TOTAL				4852.16 Y
	Add 15% CPOH on "Y"				727.82
	TOTAL				5579.98 Z
	Add Cess @ 1% on "Z"				55.80
	Cost of 10 metre				5635.78
	Cost of 1 metre				563.58
	Say				563.60
	FOR DPA 30% LESS				**394.52**

18.7.5 40 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1549	G.I. pipes 40 mm dia	metre	11.50	290.00	3335.00
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 36.50 = 41.975 kg = 0.041975 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.041975	145.72	6.12
9999	White lead, hemp, oil etc.	L.S.	13.52	2.12	28.66
9999	Cement, sand and grit etc.	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.31	714.00	935.34
0114	Beldar	day	1.31	645.00	844.95
	TOTAL				5420.09 W
	Add 1 % Water charges on "W"				54.20
	TOTAL				5474.29 X
	Add GST on "X" (multiplying factor 0.1405)				769.14
	TOTAL				6243.43 Y
	Add 15% CPOH on "Y"				936.51
	TOTAL				7179.94 Z
	Add Cess @ 1% on "Z"				71.80
	Cost of 10 metre				7251.74
	Cost of 1 metre				725.17
	Say				725.15
	FOR DPA 30% LESS				**507.61**

18.7.6 50 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1550	G.I. pipes 50 mm dia	metre	11.50	360.00	4140.00
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 51.70 = 59.455				

	kg = 0.059455 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.059455	145.72	8.66
9999	White lead, hemp, oil etc.	L.S.	13.52	2.12	28.66
9999	Cement, sand and grit etc.	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.64	714.00	1170.96
0114	Beldar	day	1.64	645.00	1057.80
	TOTAL				6676.11 W
	Add 1 % Water charges on "W"				66.76
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				947.37
	TOTAL				7690.24 Y
	Add 15% CPOH on "Y"				1153.54
	TOTAL				8843.78 Z
	Add Cess @ 1% on "Z"				88.44
	Cost of 10 metre				8932.21
	Cost of 1 metre				893.22
	Say				893.20
	FOR DPA 30% LESS				**625.24**

18.8 Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :

18.8.1 15 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1545	G.I. pipes 15 mm dia	metre	11.50	95.00	1092.50
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 12.30 = 14.145 kg = 0.014145 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.014145	145.72	2.06
9999	White lead, hemp, oil etc.	L.S.	8.06	2.12	17.09
18.40.1	Painting G.I. pipe with anti-corrosive bitumastic paint two or more coats (Rate same as per item no. 18.40.1)	metre	10.00	10.05	100.50 A
18.78	Making chases upto 7.5x7.5cm in walls and making good the same Rate as per item no. 18.78 Of SH Water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4085.81 W
	Add 1 % Water charges on "W-A"				22.67
	TOTAL				4108.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				321.74
	TOTAL				4430.22 Y
	Add 15% CPOH on "Y-A"				391.76
	TOTAL				4821.98 Z
	Add Cess @ 1% on "Z-A"				30.03
	Cost of 10 metre				4852.02
	Cost of 1 metre				485.20
	Say				485.20
	FOR DPA 30% LESS				339.64

18.8.2 20 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 10 metre MATERIAL				
1546	G.I. pipes 20 mm dia	metre	11.50	130.00	1495.00
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 15.90= 18.285 kg = 0.018285 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.018285	145.72	2.66
9999	White lead, hemp, oil etc.	L.S.	8.06	2.12	17.09
18.40.2	Painting G.I. pipe with anti-corrosive bitumastic paint two or more coats (Rate same as per item no. 18.40.2 Of SH Water Supply)	metre	10.00	12.00	120.00 A
	Making chases upto 7.5x7.5cm in walls and making good the same				
18.78	Rate as per item no. 18.78 Of SH Water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4508.41 W
	Add 1 % Water charges on "W-A"				26.70
	TOTAL				4535.12 X
	Add GST on "X-A" (multiplying factor 0.1405)				378.94
	TOTAL				4914.06 Y
	Add 15% CPOH on "Y-A"				461.41
	TOTAL				5375.47 Z
	Add Cess @ 1% on "Z-A"				35.37
	Cost of 10 metre				5410.84
	Cost of 1 metre				541.08
	Say				541.10
	FOR DPA 30% LESS				378.77

18.9 Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.

External work

18.9.1 15 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1545	G.I. pipes 15 mm dia	metre	10.20	95.00	969.00
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 12.30 = 12.546 kg = 0.012546 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.012546	145.72	1.83
9999	White lead, hemp, oil etc.	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				1999.45 W
	Add 1 % Water charges on "W"				19.99
	TOTAL				2019.44 X
	Add GST on "X" (multiplying factor 0.1405)				283.73
	TOTAL				2303.17 Y
	Add 15% CPOH on "Y"				345.48
	TOTAL				2648.65 Z
	Add Cess @ 1% on "Z"				26.49
	Cost of 10 metre				2675.14
	Cost of 1 metre				267.51
	Say				267.50
	FOR DPA 30% LESS				**187.25**

18.9.2 20 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount

	Detailsof cost for 10 metre				
	MATERIAL				
1546	G.I. pipes 20 mm dia	metre	10.20	130.00	1326.00
	Weight for carriage = pipe weight + 2%				
	for fiitings = 1.02 * 15.90 = 16.218 kg =				
	0.016218 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.016218	145.72	2.36
9999	White lead, hemp, oil etc.	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2356.98 W
	Add 1 % Water charges on "W"				23.57
	TOTAL				2380.55 X
	Add GST on "X" (multiplying				
	factor 0.1405)				334.47
	TOTAL				2715.02 Y
	Add 15% CPOH on "Y"				407.25
	TOTAL				3122.27 Z
	Add Cess @ 1% on "Z"				31.22
	Cost of 10 metre				3153.50
	Cost of 1 metre				315.35
	Say				315.35
	FOR DPA 30% LESS				**220.75**

18.9.3 25 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	G.I. pipes 25 mm dia				
1547	Weight for carriage = pipe weight + 2% for fiitings	metre	10.20	196.00	1999.20
2271	= 1.02 * 24.60 = 25.092 kg = 0.025092 tonne	tonne	0.025092	145.72	3.66
	Carriage of G.I. pipes below 100 mm dia				
9999	White lead, hemp, oil etc. LABOUR	L.S.	6.76	2.12	14.33
0116	Fitter (grade 1) Beldar	day day	0.12	784.00	94.08
0114	Trenching and refilling etc. Beldar	day	0.25	645.00	161.25
0114			0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				3123.92 W
	Add 1 % Water charges on "W"				31.24
	TOTAL				3155.16 X
	Add GST on "X" (multiplying				
	factor 0.1405)				443.30
	TOTAL				3598.46 Y
	Add 15% CPOH on "Y"				539.77
	TOTAL				4138.22 Z
	Add Cess @ 1% on "Z"				41.38
	Cost of 10 metre				4179.61
	Cost of 1 metre				417.96
	Say				417.95
	FOR DPA 30% LESS				**292.57**

18.9.4 32 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1548	G.I. pipes 32 mm dia	metre	10.20	225.00	2295.00
	Weight for carriage = pipe weight + 2%				
	for fiitings = 1.02 * 31.70 = 32.334 kg =				
	0.032334 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.032334	145.72	4.71
9999	White lead, hemp, oil etc.	L.S.	6.76	2.12	14.33
	LABOUR				
0116	Fitter (grade 1)	day	0.12	784.00	94.08

0114	Beldar	day	0.25	645.00	161.25
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				3420.77 W
	Add 1 % Water charges on "W"				34.21
	TOTAL				3454.98 X
	Add GST on "X" (multiplying factor 0.1405)				485.42
	TOTAL				3940.41 Y
	Add 15% CPOH on "Y"				591.06
	TOTAL				4531.47 Z
	Add Cess @ 1% on "Z"				45.31
	Cost of 10 metre				4576.78
	Cost of 1 metre				457.68
	Say				457.70
	FOR DPA 30% LESS				**320.39**

18.9.5 40 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1549	G.I. pipes 40 mm dia	metre	10.20	290.00	2958.00
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 36.50 = 37.23 kg = 0.03723 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.03723	145.72	5.43
9999	White lead, hemp, oil etc.	L.S.	9.49	2.12	20.12
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				4173.23 W
	Add 1 % Water charges on "W"				41.73
	TOTAL				4214.97 X
	Add GST on "X" (multiplying factor 0.1405)				592.20
	TOTAL				4807.17 Y
	Add 15% CPOH on "Y"				721.08
	TOTAL				5528.24 Z
	Add Cess @ 1% on "Z"				55.28
	Cost of 10 metre				5583.53
	Cost of 1 metre				558.35
	Say				558.35
	FOR DPA 30% LESS				**390.85**

18.9.6 50 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
1550 2271 9999 0116 0114	Details of cost for 10 metre MATERIAL G.I. pipes 50 mm dia Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 51.70 = 52.73 kg = 0.05273 tonne Carriage of G.I. pipes below 100 mm dia White lead, hemp, oil etc. LABOUR Fitter (grade 1) Beldar Trenching and refilling etc.	metre tonne L.S. day day	10.20 0.052734 9.49 0.16 0.33	360.00 145.72 2.12 784.00 645.00	3672.00 7.68 20.12 125.44 212.85
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				4889.49 W
	Add 1 % Water charges on "W"				48.89
	TOTAL				4938.39 X
	Add GST on "X" (multiplying factor 0.1405)				693.84

	TOTAL				5632.23 Y
	Add 15% CPOH on "Y"				844.83
	TOTAL				6477.07 Z
	Add Cess @ 1% on "Z"				64.77
	Cost of 10 metre				6541.84
	Cost of 1 metre				654.18
	Say				654.20
	FOR DPA 30% LESS				457.94

18.9.7 65 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1551	G.I. pipes 65 mm dia	metre	10.20	415.00	4233.00
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 66.30 = 67.626 kg = 0.067626 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.067626	145.72	9.85
9999	White lead, hemp, oil etc.	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0114	Beldar	day	0.66	645.00	425.70
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				5744.62 W
	Add 1 % Water charges on "W"				57.45
	TOTAL				5802.06 X
	Add GST on "X" (multiplying factor 0.1405)				815.19
	TOTAL				6617.25 Y
	Add 15% CPOH on "Y"				992.59
	TOTAL				7609.84 Z
	Add Cess @ 1% on "Z"				76.10
	Cost of 10 metre				7685.94
	Cost of 1 metre				768.59
	Say				768.60
	FOR DPA 30% LESS				**538.02**

18.9.8 80 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1552	G.I. pipes 80 mm dia	metre	10.20	525.00	5355.00
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 86.40 = 88.128 kg = 0.088128 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.088128	145.72	12.84
9999	White lead, hemp, oil etc.	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0114	Beldar	day	0.66	645.00	425.70
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				6869.60 W
	Add 1 % Water charges on "W"				68.70
	TOTAL				6938.30 X
	Add GST on "X" (multiplying factor 0.1405)				974.83
	TOTAL				7913.13 Y
	Add 15% CPOH on "Y"				1186.97
	TOTAL				9100.10 Z
	Add Cess @ 1% on "Z"				91.00
	Cost of 10 metre				9191.10
	Cost of 1 metre				919.11

Code	Description	Unit	Quantity	Rate	Amount
	Say				919.10
	FOR DPA 30% LESS				**643.37**

18.10 Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :

18.10.1 25 to 40 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one connection.				
	Take 25mm dia as an average size.				
	MATERIAL				
1608	G.I. tees (equal) 25 mm	each	1.00	65.00	65.00
1555	G.I. back (jam) nuts 25 mm dia	each	1.00	18.00	18.00
9988	Carriage of materials and sundries	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				565.87 W
	Add 1 % Water charges on "W"				5.66
	TOTAL				571.53 X
	Add GST on "X" (multiplying factor 0.1405)				80.30
	TOTAL				
	Add 15% CPOH on "Y"				97.77
	TOTAL				749.60 Z
	Add Cess @ 1% on "Z"				7.50
	Cost of one connection				757.10
	Say				757.10
	FOR DPA 30% LESS				**529.97**

18.10.2 50 to 80 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one connection.				
	Take 65mm dia as an average size.				
	MATERIAL				
1612	G.I. tees (equal) 65 mm	each	1.00	452.00	452.00
1559	G.I. back (jam) nuts 65 mm dia	each	1.00	25.00	25.00
9988	Carriage of materials and sundries	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.45	784.00	352.80
0114	Beldar	day	0.45	645.00	290.25
	TOTAL				1131.35 W
	Add 1 % Water charges on "W"				11.31
	TOTAL				1142.66 X
	Add GST on "X" (multiplying factor 0.1405)				160.54
	TOTAL				1303.21 Y
	Add 15% CPOH on "Y"				195.48
	TOTAL				1498.69 Z
	Add Cess @ 1% on "Z"				14.99
	Cost of one connection				1513.68
	Say				1513.70
	FOR DPA 30% LESS				**1059.59**

18.11 Fixing water meter and stop cock in G.I. pipe line including cutting and threading the pipe and making long screws etc. complete (cost of water meter and stop cock to be paid separately).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one meter with stop cock				
	MATERIAL				
1555	G.I. back (jam) nuts 25 mm dia	each	1.00	18.00	18.00
9988	Carriage of materials and sundries	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85

	TOTAL				500.87 W
	Add 1 % Water charges on "W"				5.01
	TOTAL				505.88 X
	Add GST on "X" (multiplying factor 0.1405)				71.08
	TOTAL				576.95 Y
	Add 15% CPOH on "Y"				86.54
	TOTAL				663.50 Z
	Add Cess @ 1% on "Z"				6.63
	Cost of one metre with stop cock				670.13
	Say				670.15
	FOR DPA 30% LESS				**469.11**

18.12 Providing and fixing brass bib cock of approved quality :

18.12.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1339	Brass bib-cock 15 mm dia	each	1.00	210.00	210.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				227.09 W
	Add 1 % Water charges on "W"				2.27
	TOTAL				229.36 X
	Add GST on "X" (multiplying factor 0.1405)				32.22
	TOTAL				261.58 Y
	Add 15% CPOH on "Y"				39.24
	TOTAL				300.82 Z
	Add Cess @ 1% on "Z"				3.01
	Cost of one no.				303.83
	Say				303.85
	FOR DPA 30% LESS				**212.70**

18.12.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1340	Brass bib-cock 20 mm dia	each	1.00	225.00	225.00
9988	Carriage of materials and fixing charges	L.S.	9.49	2.12	20.12
	TOTAL				245.12 W
	Add 1 % Water charges on "W"				2.45
	TOTAL				247.57 X
	Add GST on "X" (multiplying factor 0.1405)				34.78
	TOTAL				282.35 Y
	Add 15% CPOH on "Y"				42.35
	TOTAL				324.71 Z
	Add Cess @ 1% on "Z"				3.25
	Cost of one no.				327.95
	Say				327.95
	FOR DPA 30% LESS				**229.57**

18.13 Providing and fixing brass stop cock of approved quality :

18.13.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
1342	Details of cost for one no. MATERIAL Brass stop-cock 15 mm dia	each	1.00	210.00	210.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				227.09 W
	Add 1 % Water charges on "W"				2.27
	TOTAL				229.36 X
	Add GST on "X" (multiplying factor 0.1405)				32.22
	TOTAL				261.58 Y
	Add 15% CPOH on "Y"				39.24
	TOTAL				300.82 Z
	Add Cess @ 1% on "Z"				3.01

Code	Description	Unit	Quantity	Rate	Amount
	Cost of one no.				303.83
	Say				303.85
	FOR DPA 30% LESS				**212.70**

18.13.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1343	Brass stop-cock 20 mm dia	each	1.00	225.00	225.00
9988	Carriage of materials and fixing charges	L.S.	9.49	2.12	20.12
	TOTAL				245.12 W
	Add 1 % Water charges on "W"				2.45
	TOTAL				247.57 X
	Add GST on "X" (multiplying factor 0.1405)				34.78
	TOTAL				282.35 Y
	Add 15% CPOH on "Y"				42.35
	TOTAL				324.71 Z
	Add Cess @ 1% on "Z"				3.25
	Cost of one no.				327.95
	Say				327.95
	FOR DPA 30% LESS				**229.57**

18.14 Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :

18.14.1 25 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1927	Brass full way valve with C.I. wheel (screwed end) 25 mm dia	each	1.00	375.00	375.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				397.87 W
	Add 1 % Water charges on "W"				3.98
	TOTAL				401.85 X
	Add GST on "X" (multiplying factor 0.1405)				56.46
	TOTAL				458.31 Y
	Add 15% CPOH on "Y"				68.75
	TOTAL				527.06 Z
	Add Cess @ 1% on "Z"				5.27
	Cost of one no.				532.33
	Say				532.35
	FOR DPA 30% LESS				**372.65**

18.14.1A 20 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 No.				
	MATERIAL				
1926	20 mm dia Gunmetal gate valve with wheel	each	1.00	325.00	325.00
9977	Carriage of metrial and fixing charge	L.S.	9.49	2.12	20.12
	TOTAL				345.12 W
	Add 1 % Water charges on "W"				3.45
	TOTAL				348.57 X
	Add GST on "X" (multiplying factor 0.1405)				48.97
	TOTAL				397.54 Y
	Add 15% CPOH on "Y"				59.63
	TOTAL				457.18 Z
	Add Cess @ 1% on "Z"				4.57
	Cost of 1 No.				461.75
	Say				461.75
	FOR DPA 30% LESS				**323.23**

18.14.2 32 mm nominal bore.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				

	MATERIAL				
1928	Brass full way valve with C.I. wheel (screwed end) 32 mm dia	each	1.00	415.00	415.00
9988	Carriage of materials and fixing charges	L.S.	12.22	2.12	25.91
	TOTAL				440.91 W
	Add 1 % Water charges on "W"				4.41
	TOTAL				445.32 X
	Add GST on "X" (multiplying factor 0.1405)				62.57
	TOTAL				507.88 Y
	Add 15% CPOH on "Y"				76.18
	TOTAL				584.06 Z
	Add Cess @ 1% on "Z"				5.84
	Cost of one no.				589.91
	Say				589.90
	FOR DPA 30% LESS				**412.93**

18.14.3 40 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
1929	Details of cost for one no. MATERIAL Brass full way valve with C.I. wheel (screwed end) 40 mm dia	each	1.00	500.00	500.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				528.66 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				533.95 X
	Add GST on "X" (multiplying factor 0.1405)				75.02
	TOTAL				608.97 Y
	Add 15% CPOH on "Y"				91.35
	TOTAL				700.31 Z
	Add Cess @ 1% on "Z"				7.00
	Cost of one no.				707.32
	Say				707.30
	FOR DPA 30% LESS				**495.11**

18.14.4 50 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1930	Brass full way valve with C.I. wheel (screwed end) 50 mm dia	each	1.00	625.00	625.00
9988	Carriage of materials and fixing charges	L.S.	14.82	2.12	31.42
	TOTAL				656.42 W
	Add 1 % Water charges on "W"				6.56
	TOTAL				662.98 X
	Add GST on "X" (multiplying factor 0.1405)				93.15
	TOTAL				756.13 Y
	Add 15% CPOH on "Y"				113.42
	TOTAL				869.55 Z
	Add Cess @ 1% on "Z"				8.70
	Cost of one no.				878.25
	Say				878.25
	FOR DPA 30% LESS				**614.78**

18.14.5 65 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1931	Brass full way valve with C.I. wheel (screwed end) 65 mm dia	each	1.00	1080.00	1080.00
9988	Carriage of materials and fixing charges	L.S.	16.12	2.12	34.17
	TOTAL				1114.17 W
	Add 1 % Water charges on "W"				11.14
	TOTAL				1125.32 X

	Add GST on "X" (multiplying factor 0.1405)				158.11
	TOTAL				1283.42 Y
	Add 15% CPOH on "Y"				192.51
	TOTAL				1475.94 Z
	Add Cess @ 1% on "Z"				14.76
	Cost of one no.				1490.70
	Say				1490.70
	FOR DPA 30% LESS				**1043.49**

18.14.6 80 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1932	Brass full way valve with C.I. wheel (screwed end) 80 mm dia	each	1.00	1625.00	1625.00
9988	Carriage of materials and fixing charges	L.S.	18.85	2.12	39.96
	TOTAL				1664.96 W
	Add 1 % Water charges on "W"				16.65
	TOTAL				1681.61 X
	Add GST on "X" (multiplying factor 0.1405)				236.27
	TOTAL				1917.88 Y
	Add 15% CPOH on "Y"				287.68
	TOTAL				2205.56 Z
	Add Cess @ 1% on "Z"				22.06
	Cost of one no.				2227.62
	Say				2227.60
	FOR DPA 30% LESS				**1559.32**

18.15 Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :

18.15.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1922	H.P. or L.P. ball valve with polythene floats: 15 mm dia	each	1.00	215.00	215.00
9988	Carriage of materials and fixing charges	L.S.	21.58	2.12	45.75
	TOTAL				260.75 W
	Add 1 % Water charges on "W"				2.61
	TOTAL				263.36 X
	Add GST on "X" (multiplying factor 0.1405)				37.00
	TOTAL				300.36 Y
	Add 15% CPOH on "Y"				45.05
	TOTAL				345.41 Z
	Add Cess @ 1% on "Z"				3.45
	Cost of one no.				348.87
	Say				348.85
	FOR DPA 30% LESS				**244.20**

18.15.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
1923	H.P. or L.P. ball valve with polythene floats: 20 mm dia	each	1.00	240.00	240.00
9988	Carriage of materials and fixing charges	L.S.	26.91	2.12	57.05
	TOTAL				297.05 W
	Add 1 % Water charges on "W"				2.97
	TOTAL				300.02 X
	Add GST on "X" (multiplying factor 0.1405)				42.15
	TOTAL				342.17 Y
	Add 15% CPOH on "Y"				51.33
	TOTAL				393.50 Z
	Add Cess @ 1% on "Z"				3.93

Code	Description	Unit	Quantity	Rate	Amount
	Cost of one no.				397.43
	Say				397.45
	FOR DPA 30% LESS				**278.22**

18.15.3 25 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1924	H.P. or L.P. ball valve with polythene floats: 25 mm dia	each	1.00	230.00	230.00
9988	Carriage of materials and fixing charges	L.S.	32.24	2.12	68.35
	TOTAL				298.35 W
	Add 1 % Water charges on "W"				2.98
	TOTAL				301.33 X
	Add GST on "X" (multiplying factor 0.1405)				42.34
	TOTAL				343.67 Y
	Add 15% CPOH on "Y"				51.55
	TOTAL				395.22 Z
	Add Cess @ 1% on "Z"				3.95
	Cost of one no.				399.17
	Say				399.15
	FOR DPA 30% LESS				**279.41**

18.16 Providing and fixing gun metal non- return valve of approved quality (screwed end) :

18.16.1 25 mm nominal bore

18.16.1.1 Horizontal

Code	Description	Unit	Quantity	Rate	Amount
1933	Details of cost for one no. MATERIAL Gunmetal non-return valve-horizontal (screwed end) 25 mm dia	each	1.00	350.00	350.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				378.66 W
	Add 1 % Water charges on "W"				3.79
	TOTAL				382.45 X
	Add GST on "X" (multiplying factor 0.1405)				53.73
	TOTAL				436.18 Y
	Add 15% CPOH on "Y"				65.43
	TOTAL				501.61 Z
	Add Cess @ 1% on "Z"				5.02
	Cost of one no.				506.63
	Say				506.65
	FOR DPA 30% LESS				**354.66**

18.16.1.2 Vertical

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3080	Gunmetal non-return valve-vertical (screwed end) 25 mm dia	each	1.00	400.00	400.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				428.66 W
	Add 1 % Water charges on "W"				4.29
	TOTAL				432.95 X
	Add GST on "X" (multiplying factor 0.1405)				60.83
	TOTAL				493.78 Y
	Add 15% CPOH on "Y"				74.07
	TOTAL				567.85 Z
	Add Cess @ 1% on "Z"				5.68
	Cost of one no.				573.52
	Say				573.50
	FOR DPA 30% LESS				**401.45**

18.16.2 32 mm nominal bore

18.16.2.1 Horizontal

Code	Description	Unit	Quantity	Rate	Amount

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1934	Gunmetal non-return valve-horizontal (screwed end) 32 mm dia	each	1.00	475.00	475.00
9988	Carriage of materials and fixing charges	L.S.	14.82	2.12	31.42
	TOTAL				506.42 W
	Add 1 % Water charges on "W"				5.06
	TOTAL				511.48 X
	Add GST on "X" (multiplying factor 0.1405)				71.86
	TOTAL				583.35 Y
	Add 15% CPOH on "Y"				87.50
	TOTAL				670.85 Z
	Add Cess @ 1% on "Z"				6.71
	Cost of one no.				677.56
	Say				677.55
	FOR DPA 30% LESS				**474.29**

18.16.2.2 Vertical

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3084	Gunmetal non-return valve-vertical (screwed end) 32 mm dia	each	1.00	550.00	550.00
9988	Carriage of materials and fixing charges	L.S.	14.82	2.12	31.42
	TOTAL				581.42 W
	Add 1 % Water charges on "W"				5.81
	TOTAL				587.23 X
	Add GST on "X" (multiplying factor 0.1405)				82.51
	TOTAL				669.74 Y
	Add 15% CPOH on "Y"				100.46
	TOTAL				770.20 Z
	Add Cess @ 1% on "Z"				7.70
	Cost of one no.				777.90
	Say				777.90
	FOR DPA 30% LESS				**544.53**

18.16.3 40 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1935	Gunmetal non-return valve-horizontal (screwed end) 40 mm dia	each	1.00	575.00	575.00
9988	Carriage of materials and fixing charges	L.S.	16.12	2.12	34.17
	TOTAL				609.17 W
	Add 1 % Water charges on "W"				6.09
	TOTAL				615.27 X
	Add GST on "X" (multiplying factor 0.1405)				86.44
	TOTAL				701.71 Y
	Add 15% CPOH on "Y"				105.26
	TOTAL				806.97 Z
	Add Cess @ 1% on "Z"				8.07
	Cost of one no.				815.04
	Say				815.05
	FOR DPA 30% LESS				**570.54**

18.16.3.2 Vertical

Code	Description	Unit	Quantity	Rate	Amount
3088	Details of cost for one no. MATERIAL Gunmetal non-return valve-vertical (screwed end) 40 mm dia	each	1.00	750.00	750.00
9988	Carriage of materials and fixing charges	L.S.	16.12	2.12	34.17
	TOTAL				784.17 W
	Add 1 % Water charges on "W"				7.84
	TOTAL				792.02 X

	Add GST on "X" (multiplying factor 0.1405)				111.28
	TOTAL				903.29 Y
	Add 15% CPOH on "Y"				135.49
	TOTAL				1038.79 Z
	Add Cess @ 1% on "Z"				10.39
	Cost of one no.				1049.18
	Say				1049.20
	FOR DPA 30% LESS				**734.44**

18.16.4 50 mm nominal bore

18.16.4.1 Horizontal

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1936	Gunmetal non-return valve-horizontal (screwed end) 50 mm dia	each	1.00	840.00	840.00
9988	Carriage of materials and fixing charges	L.S.	17.55	2.12	37.21
	TOTAL				877.21 W
	Add 1 % Water charges on "W"				8.77
	TOTAL				885.98 X
	Add GST on "X" (multiplying factor 0.1405)				124.48
	TOTAL				1010.46 Y
	Add 15% CPOH on "Y"				151.57
	TOTAL				1162.03 Z
	Add Cess @ 1% on "Z"				11.62
	Cost of one no.				1173.65
	Say				1173.65
	FOR DPA 30% LESS				**821.56**

18.16.4.2 Vertical

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3092	Gunmetal non-return valve-vertical (screwed end) 50 mm dia	each	1.00	950.00	950.00
9988	Carriage of materials and fixing charges	L.S.	17.55	2.12	37.21
	TOTAL				987.21 W
	Add 1 % Water charges on "W"				9.87
	TOTAL				997.08 X
	Add GST on "X" (multiplying factor 0.1405)				140.09
	TOTAL				1137.17 Y
	Add 15% CPOH on "Y"				170.58
	TOTAL				1307.74 Z
	Add Cess @ 1% on "Z"				13.08
	Cost of one no.				1320.82
	Say				1320.80
	FOR DPA 30% LESS				**924.56**

18.16.5 65 mm nominal bore

18.16.5.1 Horizontal

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1937	Gunmetal non-return valve-horizontal (screwed end) 65 mm dia	each	1.00	1525.00	1525.00
9988	Carriage of materials and fixing charges	L.S.	18.85	2.12	39.96
	TOTAL				1564.96 W
	Add 1 % Water charges on "W"				15.65
	TOTAL				1580.61 X
	Add GST on "X" (multiplying factor 0.1405)				222.08
	TOTAL				1802.69 Y
	Add 15% CPOH on "Y"				270.40
	TOTAL				2073.09 Z

	Add Cess @ 1% on "Z"				20.73
	Cost of one no.				2093.82
	Say				2093.80
	FOR DPA 30% LESS				**1465.66**

18.16.5.2 Vertical

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3096	Gunmetal non-return valve-vertical				
	(screwed end) 65 mm dia	each	1.00	1550.00	1550.00
9988	Carriage of materials and fixing charges	L.S.	18.85	2.12	39.96
	TOTAL				1589.96 W
	Add 1 % Water charges on "W"				15.90
	TOTAL				1605.86 X
	Add GST on "X" (multiplying factor 0.1405)				225.62
	TOTAL				1831.49 Y
	Add 15% CPOH on "Y"				274.72
	TOTAL				2106.21 Z
	Add Cess @ 1% on "Z"				21.06
	Cost of one no.				2127.27
	Say				2127.25
	FOR DPA 30% LESS				**1489.08**

18.16.6 80 mm nominal bore

18.16.6.1 Horizontal

Code	Description	Unit	Quantity	Rate	Amount
1938	Details of cost for one no. MATERIAL Gunmetal non-return valve-horizontal (screwed end) 80 mm dia	each	1.00	2300.00	2300.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				2342.99 W
	Add 1 % Water charges on "W"				23.43
	TOTAL				2366.42 X
	Add GST on "X" (multiplying factor 0.1405)				332.48
	TOTAL				2698.91 Y
	Add 15% CPOH on "Y"				404.84
	TOTAL				3103.74 Z
	Add Cess @ 1% on "Z"				31.04
	Cost of one no.				3134.78
	Say				3134.80
	FOR DPA 30% LESS				**2194.36**

18.16.6.2 Vertical

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3300	Gunmetal non-return valve-vertical				
	(screwed end) 80 mm dia	each	1.00	2600.00	2600.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				2642.99 W
	Add 1 % Water charges on "W"				26.43
	TOTAL				2669.42 X
	Add GST on "X" (multiplying factor 0.1405)				375.05
	TOTAL				3044.48 Y
	Add 15% CPOH on "Y"				456.67
	TOTAL				3501.15 Z
	Add Cess @ 1% on "Z"				35.01
	Cost of one no.				3536.16
	Say				3536.15
	FOR DPA 30% LESS				**2475.31**

18.17 : **Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main**

18.17.1 **15 mm nominal bore**

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1360	C.I.mouth, brass ferrule 15 mm dia	each	1.00	140.00	140.00
9988	Carriage of materials and fixing charges	L.S.	40.30	2.12	85.44
	TOTAL				225.44 W
	Add 1 % Water charges on "W"				2.25
	TOTAL				227.69 X
	Add GST on "X" (multiplying factor 0.1405)				31.99
	TOTAL				259.68 Y
	Add 15% CPOH on "Y"				38.95
	TOTAL				298.63 Z
	Add Cess @ 1% on "Z"				2.99
	Cost of one no.				301.62
	Say				301.60
	FOR DPA 30% LESS				**211.12**

18.17.2 **20 mm nominal bore**

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1361	C.I.mouth, brass ferrule 20 mm dia	each	1.00	160.00	160.00
9988	Carriage of materials and fixing charges	L.S.	47.19	2.12	100.04
	TOTAL				260.04 W
	Add 1 % Water charges on "W"				2.60
	TOTAL				262.64 X
	Add GST on "X" (multiplying factor 0.1405)				36.90
	TOTAL				299.54 Y
	Add 15% CPOH on "Y"				44.93
	TOTAL				344.48 Z
	Add Cess @ 1% on "Z"				3.44
	Cost of one no.				347.92
	Say				347.90
	FOR DPA 30% LESS				**243.53**

18.17.3 **25 mm nominal bore**

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1362	C.I.mouth, brass ferrule 25 mm dia	each	1.00	220.00	220.00
9988	Carriage of materials and fixing charges	L.S.	53.82	2.12	114.10
	TOTAL				334.10 W
	Add 1 % Water charges on "W"				3.34
	TOTAL				337.44 X
	Add GST on "X" (multiplying factor 0.1405)				47.41
	TOTAL				384.85 Y
	Add 15% CPOH on "Y"				57.73
	TOTAL				442.58 Z
	Add Cess @ 1% on "Z"				4.43
	Cost of one no.				447.00
	Say				447.00
	FOR DPA 30% LESS				**312.90**

18.18 **Providing and fixing uplasticised PVC connection pipe with brass unions :**

18.18.1 **30 cm length**

18.18.1.1 **15 mm nominal bore**

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
1687	Unplasticised P.V.C.connection pipe with brass union 30 cm long 15 mm bore	each	1.00	30.00	30.00
9988	Carriage of materials and fixing charges	L.S.	12.22	2.12	25.91

	TOTAL				55.91 W
	Add 1 % Water charges on "W"				0.56
	TOTAL				56.47 X
	Add GST on "X" (multiplying factor 0.1405)				7.93
	TOTAL				64.40 Y
	Add 15% CPOH on "Y"				9.66
	TOTAL				74.06 Z
	Add Cess @ 1% on "Z"				0.74
	Cost of one no.				74.80
	Say				74.80
	FOR DPA 30% LESS				**52.36**

18.18.1.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1688	Unplasticised P.V.C.connection pipe with brass union 30 cm long 20 mm bore	each	1.00	35.00	35.00
9988	Carriage of materials and fixing charges	L.S.	12.22	2.12	25.91
	TOTAL				60.91 W
	Add 1 % Water charges on "W"				0.61
	TOTAL				61.52 X
	Add GST on "X" (multiplying factor 0.1405)				8.64
	TOTAL				70.16 Y
	Add 15% CPOH on "Y"				10.52
	TOTAL				80.68 Z
	Add Cess @ 1% on "Z"				0.81
	Cost of one no.				81.49
	Say				81.50
	FOR DPA 30% LESS				**57.05**

18.18.2 45 cm length

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1689	Unplasticised P.V.C.connection pipe with brass union 45 cm long 15 mm bore	each	1.00	35.00	35.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				63.66 W
	Add 1 % Water charges on "W"				0.64
	TOTAL				64.30 X
	Add GST on "X" (multiplying factor 0.1405)				9.03
	TOTAL				73.33 Y
	Add 15% CPOH on "Y"				11.00
	TOTAL				84.33 Z
	Add Cess @ 1% on "Z"				0.84
	Cost of one no.				85.18
	Say				85.20
	FOR DPA 30% LESS				**59.64**

18.18.2.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1690	Unplasticised P.V.C.connection pipe with brass union 45 cm long 20 mm bore	each	1.00	48.00	48.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				76.66 W
	Add 1 % Water charges on "W"				0.77
	TOTAL				77.43 X
	Add GST on "X" (multiplying				

Code	Description	Unit	Quantity	Rate	Amount
	factor 0.1405)				10.88
	TOTAL				88.31 Y
	Add 15% CPOH on "Y"				13.25
	TOTAL				101.55 Z
	Add Cess @ 1% on "Z"				1.02
	Cost of one no.				102.57
	Say				102.55
	FOR DPA 30% LESS				**71.79**

18.19 Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :

18.19.1 100 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1878	Shower rose C.P.brass for 15 to				
	20 mm inlet 100 mm dia	each	1.00	110.00	110.00
9988	Carriage of materials and fixing charges	L.S.	6.76	2.12	14.33
	TOTAL				124.33 W
	Add 1 % Water charges on "W"				1.24
	TOTAL				125.57 X
	Add GST on "X" (multiplying				
	factor 0.1405)				17.64
	TOTAL				143.22 Y
	Add 15% CPOH on "Y"				21.48
	TOTAL				164.70 Z
	Add Cess @ 1% on "Z"				1.65
	Cost of one no.				166.35
	Say				166.35
	FOR DPA 30% LESS				**116.45**

18.19.2 150 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
1879	Shower rose C.P.brass for 15 to 20 mm inlet 150 mm dia	each	1.00	125.00	125.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				142.09 W
	Add 1 % Water charges on "W"				1.42
	TOTAL				143.51 X
	Add GST on "X" (multiplying				
	factor 0.1405)				20.16
	TOTAL				163.67 Y
	Add 15% CPOH on "Y"				24.55
	TOTAL				188.22 Z
	Add Cess @ 1% on "Z"				1.88
	Cost of one no.				190.10
	Say				190.10
	FOR DPA 30% LESS				**133.07**

18.20 Laying in position centrifugally cast (spun) iron S&S or flanged pipes (excluding cost of pipe).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5.14 quintal				
	10 m of 200 mm dia C.I. pipe class 'A'				
	Weight = (2x257) = 514kg = 5.14 quintal				
	LABOUR for laying pipe				
0116	Fitter (grade 1)	day	0.17	784.00	133.28
0117	Assistant Fitter or 2nd class Fitter	day	0.17	714.00	121.38
0114	Beldar	day	1.33	645.00	857.85
9999	Sundries	L.S.	16.12	2.12	34.17
	TOTAL				1146.68 W
	Add 1 % Water charges on "W"				11.47
	TOTAL				1158.15 X
	Add GST on "X" (multiplying				
	factor 0.1405)				162.72
	TOTAL				1320.87 Y
	Add 15% CPOH on "Y"				198.13

	TOTAL				1519.00 Z
	Add Cess @ 1% on "Z"				15.19
	Cost of 5.14 quintal				1534.19
	Cost of one quintal				298.48
	Say				298.50
	FOR DPA 30% LESS				**208.95**

18.21 Laying in position S&S or flanged C.I. special such as tees, bends, collars, tapers and caps etc.(excluding cost of specials).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7 quintal				
	10 Nos. Tee 200x150mm Weight				
	= 70x10 = 700kg.				
	LABOUR for laying tee-				
0116	Fitter (grade 1)	day	0.93	784.00	729.12
0117	Assistant Fitter or 2nd class Fitter	day	0.62	714.00	442.68
0114	Beldar	day	2.48	645.00	1599.60
9999	Sundries	L.S.	40.17	2.12	85.16
	TOTAL				2856.56 W
	Add 1 % Water charges on "W"				28.57
	TOTAL				2885.13 X
	Add GST on "X" (multiplying factor 0.1405)				405.36
	TOTAL				3290.49 Y
	Add 15% CPOH on "Y"				493.57
	TOTAL				3784.06 Z
	Add Cess @ 1% on "Z"				37.84
	Cost of 7 quintal				3821.90
	Cost of one quintal				545.99
	Say				546.00
	FOR DPA 30% LESS				**382.20**

18.22 Providing and laying S&S C.I. standard specials such as tees, bends, collars, tapers, caps etc. (Heavy class):

18.22.1 Up to 300 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal				
	MATERIAL				
1464	S & S.C.I.standard specials upto 300 mm dia (heavy class)	quintal	1.00	3800.00	3800.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	LABOUR				
18.24	Rate as per item No. 18.24 Of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				4360.57 W
	Add 1 % Water charges on "W-A"				38.15
	TOTAL				4398.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				541.31
	TOTAL				4940.02 Y
	Add 15% CPOH on "Y-A"				659.10
	TOTAL				5599.13 Z
	Add Cess @ 1% on "Z-A"				50.53
	Cost of one quintal				5649.66
	Say				5649.65
	FOR DPA 30% LESS				**3954.76**

18.22.2 Over 300 mm dia

Code	Description	Unit	Quantity	Rate	Amount
1466 2309	Details of cost for 1 quintal MATERIAL S & S.C.I.standard specials over 300 mm dia (heavy class) Carriage of Cast iron fittings	quintal tonne	1.00 0.10	3800.00 145.72	3800.00 14.57
	LABOUR				
	For laying				
18.24	Rate as per item No. 18.24 Of SH: Water Supply	quintal	1.00	546.00	546.00 A

	TOTAL				4360.57 W
	Add 1 % Water charges on "W-A"				38.15
	TOTAL				4398.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				541.31
	TOTAL				4940.02 Y
	Add 15% CPOH on "Y-A"				659.10
	TOTAL				5599.13 Z
	Add Cess @ 1% on "Z-A"				50.53
	Cost of one quintal				5649.66
	Say				5649.65
	FOR DPA 30% LESS				**3954.76**

18.23 Providing and laying flanged C.I. standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :

18.23.1 Up to 300 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal				
	MATERIAL				
1468	Flanged C.I. standard specials upto 300 mm dia(heavy class)	quintal	1.00	5700.00	5700.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	LABOUR				
	For laying				
18.24	Rate as per item No. 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				6260.57 W
	Add 1 % Water charges on "W-A"				57.15
	TOTAL				6317.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				810.93
	TOTAL				7128.64 Y
	Add 15% CPOH on "Y-A"				987.40
	TOTAL				8116.04 Z
	Add Cess @ 1% on "Z-A"				75.70
	Cost of one quintal				8191.74
	Say				8191.75
	FOR DPA 30% LESS				**5734.23**

18.23.2 Over 300 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal MATERIAL				
1470	Flanged C.I. standard specials over 300 mm dia(heavy class)	quintal	1.00	5250.00	5250.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	LABOUR				
	For laying				
18.24	Rate as per item No. 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				5810.57 W
	Add 1 % Water charges on "W-A"				52.65
	TOTAL				5863.22 X
	Add GST on "X-A" (multiplying factor 0.1405)				747.07
	TOTAL				6610.29 Y
	Add 15% CPOH on "Y-A"				909.64
	TOTAL				7519.93 Z
	Add Cess @ 1% on "Z-A"				69.74
	Cost of one quintal				7589.67
	Say				7589.65
	FOR DPA 30% LESS				**5312.76**

18.24 Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536 :

18.24.1 100 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				

	MATERIAL				
	100mm dia. spun iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 19.820 Kg				
	Weight of 10m pipes 19.820x10				
	= 198.20 Kg				
7697	S&S Centrifugally (Spun) C.I. Pipe class LA 100mm dia	metre	10.00	857.00	8570.00
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.10	358.32	35.83
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	1.98	298.50	591.03 A
	TOTAL				9196.86 W
	Add 1 % Water charges on "W-A"				86.06
	TOTAL				9282.92 X
	Add GST on "X-A" (multiplying factor 0.1405)				1221.21
	TOTAL				10504.13 Y
	Add 15% CPOH on "Y-A"				1486.97
	TOTAL				11991.10 Z
	Add Cess @ 1% on "Z-A"				114.00
	Cost of 10 metre				12105.10
	Cost of one metre				1210.51
	Say				1210.50
	FOR DPA 30% LESS				**847.35**

18.24.2 125 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	125mm dia. spun iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 25.820 Kg				
	Weight of 10m pipes 25.820x10				
	= 258.20 Kg				
7698	S&S Centrifugally (Spun) C.I. Pipe class LA 125mm dia	metre	10.00	1067.00	10670.00
2320	Carriage of Spun iron S & S pipes 125 mm dia	100 metre	0.10	478.64	47.86
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	2.58	298.50	770.13 A
	TOTAL				11487.99 W
	Add 1 % Water charges on "W-A"				107.18
	TOTAL				11595.17 X
	Add GST on "X-A" (multiplying factor 0.1405)				1520.92
	TOTAL				13116.09 Y
	Add 15% CPOH on "Y-A"				1851.89
	TOTAL				14967.99 Z
	Add Cess @ 1% on "Z-A"				141.98
	Cost of 10 metre				15109.96
	Cost of one metre				1511.00
	Say				1511.00
	FOR DPA 30% LESS				**1057.70**

18.24.3 150 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	150mm dia. spun iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 32.180 Kg				
	Weight of 10m pipes 32.180x10				

	= 321.80 Kg				
7699	S&S Centrifugally (Spun) C.I. Pipe class LA 150mm dia	metre	10.00	1286.00	12860.00
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	0.10	597.20	59.72
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.22	298.50	961.17 A
	TOTAL				
	Add 1 % Water charges on "W-A"				129.20
	TOTAL				14010.09 X
	Add GST on "X-A" (multiplying factor 0.1405)				1833.37
	TOTAL				15843.46 Y
	Add 15% CPOH on "Y-A"				2232.34
	TOTAL				18075.80 Z
	Add Cess @ 1% on "Z-A"				171.15
	Cost of 10 metre				18246.95
	Cost of one metre				1824.69
	Say				1824.70
	FOR DPA 30% LESS				**1277.29**

18.24.4 200 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	200mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 47.090 Kg				
	Weight of 10m pipes 47.090x10 = 470.90 Kg				
7700	S&S Centrifugally (Spun) C.I. Pipe class LA 200mm dia	metre	10.00	2190.00	21900.00
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	0.10	971.45	97.15
	LABOUR for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	4.71	298.50	1405.94 A
	TOTAL				23403.08 W
	Add 1 % Water charges on "W-A"				219.97
	TOTAL				23623.05 X
	Add GST on "X-A" (multiplying factor 0.1405)				3121.50
	TOTAL				26744.56 Y
	Add 15% CPOH on "Y-A"				3800.79
	TOTAL				30545.35 Z
	Add Cess @ 1% on "Z-A"				291.39
	Cost of 10 metre				30836.74
	Cost of one metre				3083.67
	Say				3083.65
	FOR DPA 30% LESS				**2158.56**

18.24.5 250 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIALS				
	250mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 63.450 Kg				
	Weight of 10m pipes 63.450x10 = 634.50 Kg				
7701	S&S Centrifugally (Spun) C.I. Pipe class LA 250mm dia	metre	10.00	2857.00	28570.00
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	0.10	1380.48	138.05
	LABOUR for laying				

18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	6.35	298.50	1895.48 A
	TOTAL				
	Add 1 % Water charges on "W-A"				287.08
	TOTAL				30890.60 X
	Add GST on "X-A" (multiplying factor 0.1405)				4073.82
	TOTAL				34964.42 Y
	Add 15% CPOH on "Y-A"				4960.34
	TOTAL				39924.76 Z
	Add Cess @ 1% on "Z-A"				380.29
	Cost of 10 metre				40305.05
	Cost of one metre				4030.51
	Say				4030.50
	FOR DPA 30% LESS				**2821.35**

18.24.6 300 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	300mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 81.820 Kg				
	Weight of 10m pipes 81.820x10 = 818.20 Kg				
7702	S&S Centrifugally (Spun) C.I. Pipe class LA 300mm dia	metre	10.00	3857.00	38570.00
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	0.10	1706.30	170.63
	LABOUR for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	8.18	298.50	2441.73 A
	TOTAL				41182.36 W
	Add 1 % Water charges on "W-A"				387.41
	TOTAL				41569.77 X
	Add GST on "X-A" (multiplying factor 0.1405)				5497.49
	TOTAL				47067.26 Y
	Add 15% CPOH on "Y-A"				6693.83
	TOTAL				53761.08 Z
	Add Cess @ 1% on "Z-A"				513.19
	Cost of 10 metre				54274.28
	Cost of one metre				5427.43
	Say				5427.45
	FOR DPA 30% LESS				**3799.22**

18.24.7 350 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	350mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 103.10 Kg				
	Weight of 10m pipes 103.10x10 = 1031.00 Kg				
7703	S&S Centrifugally (Spun) C.I. Pipe class LA 350mm dia	metre	10.00	4619.00	46190.00
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	0.10	2388.82	238.88
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	10.31	298.50	3077.54 A
	TOTAL				
	Add 1 % Water charges on "W-A"				464.29
	TOTAL				49970.71 X
	Add GST on "X-A" (multiplying				

Code	Description	Unit	Quantity	Rate	Amount
	factor 0.1405)				6588.49
	TOTAL				56559.20 Y
	Add 15% CPOH on "Y-A"				8022.25
	TOTAL				64581.45 Z
	Add Cess @ 1% on "Z-A"				615.04
	Cost of 10 metre				65196.48
	Cost of one metre				6519.65
	Say				6519.65
	FOR DPA 30% LESS				**4563.76**

18.24.8 400 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	400mm dia. spun iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 125.45 Kg				
	Weight of 10m pipes 125.45x10				
	= 1254.50 Kg				
7704	S&S Centrifugally (Spun) C.I. Pipe class LA 400mm dia	metre	10.00	6095.00	60950.00
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	0.10	3257.48	325.75
	LABOUR for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	12.55	298.50	3746.18 A
	TOTAL				65021.92 W
	Add 1 % Water charges on "W-A"				612.76
	TOTAL				65634.68 X
	Add GST on "X-A" (multiplying factor 0.1405)				8695.34
	TOTAL				74330.02 Y
	Add 15% CPOH on "Y-A"				10587.58
	TOTAL				84917.59 Z
	Add Cess @ 1% on "Z-A"				811.71
	Cost of 10 metre				85729.31
	Cost of one metre				8572.93
	Say				8572.95
	FOR DPA 30% LESS				**6001.07**

18.24.9 450 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	450mm dia. spun iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 151.270 Kg				
	Weight of 10m pipes 151.270x10				
	= 1512.70 Kg				
7705	S&S Centrifugally (Spun) C.I. Pipe class LA 450mm dia	metre	10.00	7381.00	73810.00
2327	Carriage of Spun iron S & S pipes 450 mm dia	100 metre	0.10	3981.36	398.14
	LABOUR for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	15.13	298.50	4516.31 A
	TOTAL				
	Add 1 % Water charges on "W-A"				742.08
	TOTAL				79466.52 X
	Add GST on "X-A" (multiplying factor 0.1405)				10530.51
	TOTAL				89997.03 Y
	Add 15% CPOH on "Y-A"				12822.11
	TOTAL				102819.14 Z
	Add Cess @ 1% on "Z-A"				983.03
	Cost for 10 metre				103802.16

Code	Description	Unit	Quantity	Rate	Amount
	Cost of one metre				10380.22
	Say				10380.20
	FOR DPA 30% LESS				**7266.14**

18.24.10 500 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	500mm dia. spun iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 177.090 Kg				
	Weight of 10m pipes 177.090x10				
	= 1770.90 Kg				
7706	S&S Centrifugally (Spun) C.I. Pipe class LA 500mm dia	metre	10.00	8571.00	85710.00
2328	Carriage of Spun iron S & S pipes 500 mm dia	100 metre	0.10	3981.36	398.14
	LABOUR for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	17.71	298.50	5286.44 A
	TOTAL				91394.57 W
	Add 1 % Water charges on "W-A"				861.08
	TOTAL				92255.65 X
	Add GST on "X-A" (multiplying factor 0.1405)				12219.18
	TOTAL				104474.83 Y
	Add 15% CPOH on "Y-A"				14878.26
	TOTAL				119353.09 Z
	Add Cess @ 1% on "Z-A"				1140.67
	Cost of 10 metre				120493.75
	Cost of one metre				12049.38
	Say				12049.40
	FOR DPA 30% LESS				**8434.58**

18.24.11 600 mm dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	600mm dia. spun iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 236.000 Kg				
	Weight of 10m pipes 236.000x10				
	= 2360.00 Kg				
7707	S&S Centrifugally (Spun) C.I. Pipe class LA 600mm dia	metre	10.00	11995.00	119950.00
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	0.10	5972.04	597.20
	LABOUR for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	23.60	298.50	7044.60 A
	TOTAL				
	Add 1 % Water charges on "W-A"				1205.47
	TOTAL				128797.28 X
	Add GST on "X-A" (multiplying factor 0.1405)				17106.25
	TOTAL				145903.53 Y
	Add 15% CPOH on "Y-A"				20828.84
	TOTAL				166732.37 Z
	Add Cess @ 1% on "Z-A"				1596.88
	Cost of 10 metre				168329.24
	Cost of 1 metre				16832.92
	Say				16832.90
	FOR DPA 30% LESS				**11783.03**

18.25 Providing lead caulked joints to spun iron or C.I. pipes and specials, including testing of joints but excluding the cost of pig lead :

18.25.1 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	1.70	55.00	93.50
	0.17x 10 =1.70 kg				
0761	Fuel wood	quintal	0.28	500.00	140.00
0771	Kerosene oil	litre	0.38	50.00	19.00
9999	Sundries	L.S.	6.76	2.12	14.33
9977	Carriage of materials	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0117	Assistant Fitter or 2nd class Fitter	day	1.00	714.00	714.00
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				3066.13 W
	Add 1 % Water charges on "W"				30.66
	TOTAL				3096.79 X
	Add GST on "X" (multiplying factor 0.1405)				435.10
	TOTAL				3531.89 Y
	Add 15% CPOH on "Y"				529.78
	TOTAL				4061.68 Z
	Add Cess @ 1% on "Z"				40.62
	Cost of 10 joints				4102.29
	Cost of one joint				410.23
	Say				410.25
	FOR DPA 30% LESS				**287.18**

18.25.2 125 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	2.00	55.00	110.00
	0.20x10=2.00 kg				
0761	Fuel wood	quintal	0.37	500.00	185.00
0771	Kerosene oil	litre	0.76	50.00	38.00
9999	Sundries	L.S.	9.49	2.12	20.12
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	LABOUR				
0116	Fitter (grade 1)	day	1.50	784.00	1176.00
0117	Assistant Fitter or 2nd class Fitter	day	1.50	714.00	1071.00
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				4555.24 W
	Add 1 % Water charges on "W"				45.55
	TOTAL				4600.79 X
	Add GST on "X" (multiplying factor 0.1405)				
	TOTAL				5247.20 Y
	Add 15% CPOH on "Y"				787.08
	TOTAL				6034.28 Z
	Add Cess @ 1% on "Z"				60.34
	Cost of 10 joints				6094.62
	Cost of one joint				609.46
	Say				609.45
	FOR DPA 30% LESS				**426.62**

18.25.3 150 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	2.30	55.00	126.50
	0.23x10=2.30 kg				
0761	Fuel wood	quintal	0.42	500.00	210.00
0771	Kerosene oil	litre	0.76	50.00	38.00
9999	Sundries	L.S.	10.79	2.12	22.87
9977	Carriage of materials	L.S.	10.79	2.12	22.87
	LABOUR				
0116	Fitter (grade 1)	day	1.50	784.00	1176.00

Code	Description	Unit	Quantity	Rate	Amount
0117	Assistant Fitter or 2nd class Fitter	day	1.50	714.00	1071.00
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				4602.25 W
	Add 1 % Water charges on "W"				46.02
	TOTAL				4648.27 X
	Add GST on "X" (multiplying factor 0.1405)				653.08
	TOTAL				5301.35 Y
	Add 15% CPOH on "Y"				795.20
	TOTAL				6096.56 Z
	Add Cess @ 1% on "Z"				60.97
	Cost of 10 joints				6157.52
	Cost of one joint				615.75
	Say				615.75
	FOR DPA 30% LESS				**431.03**
18.25.4	**200 mm diameter pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn 0.3x10=3.00 kg	kilogram	3.00	55.00	165.00
0761	Fuel wood	quintal	0.56	500.00	280.00
0771	Kerosene oil	litre	0.76	50.00	38.00
9999	Sundries	L.S.	13.52	2.12	28.66
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	2.00	784.00	1568.00
0117	Assistant Fitter or 2nd class Fitter	day	2.00	714.00	1428.00
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				6116.32 W
	Add 1 % Water charges on "W"				61.16
	TOTAL				6177.49 X
	Add GST on "X" (multiplying factor 0.1405)				
	TOTAL				7045.43 Y
	Add 15% CPOH on "Y"				1056.81
	TOTAL				8102.24 Z
	Add Cess @ 1% on "Z"				81.02
	Cost of 10 joints				8183.26
	Cost of one joint				818.33
	Say				818.35
	FOR DPA 30% LESS				**572.85**
18.25.5	**250 mm diameter pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn 0.4x10=4 00 kg	kilogram	4.00	55.00	220.00
0761	Fuel wood	quintal	0.65	500.00	325.00
0771	Kerosene oil	litre	1.14	50.00	57.00
9999	Sundries	L.S.	17.55	2.12	37.21
9977	Carriage of materials	L.S.	17.55	2.12	37.21
	LABOUR				
0116	Fitter (grade 1)	day	2.50	784.00	1960.00
0117	Assistant Fitter or 2nd class Fitter	day	2.50	714.00	1785.00
0114	Beldar	day	5.00	645.00	3225.00
	TOTAL				7646.41 W
	Add 1 % Water charges on "W"				76.46
	TOTAL				7722.88 X
	Add GST on "X" (multiplying factor 0.1405)				1085.06
	TOTAL				8807.94 Y
	Add 15% CPOH on "Y"				1321.19
	TOTAL				10129.13 Z
	Add Cess @ 1% on "Z"				101.29

	Cost of 10 joints				10230.42
	Cost of one joint				1023.04
	Say				1023.05
	FOR DPA 30% LESS				**716.14**

18.25.6 300 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	5.40	55.00	297.00
	0.54x10 =5.40 kg				
0761	Fuel wood	quintal	0.75	500.00	375.00
0771	Kerosene oil	litre	1.52	50.00	76.00
9999	Sundries	L.S.	20.28	2.12	42.99
9977	Carriage of materials	L.S.	20.28	2.12	42.99
	LABOUR				
0116	Fitter (grade 1)	day	3.00	784.00	2352.00
0117	Assistant Fitter or 2nd class Fitter	day	3.00	714.00	2142.00
0114	Beldar	day	6.00	645.00	3870.00
	TOTAL				9197.99 W
	Add 1 % Water charges on "W"				91.98
	TOTAL				9289.97 X
	Add GST on "X" (multiplying factor 0.1405)				
	TOTAL				10595.21 Y
	Add 15% CPOH on "Y"				1589.28
	TOTAL				12184.49 Z
	Add Cess @ 1% on "Z"				121.84
	Cost of 10 joints				12306.33
	Cost of one joint				1230.63
	Say				1230.65
	FOR DPA 30% LESS				**861.46**

18.25.7 350 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	6.20	55.00	341.00
	0.62x10=6.20 kg				
0761	Fuel wood	quintal	0.93	500.00	465.00
0771	Kerosene oil	litre	1.70	50.00	85.00
9999	Sundries	L.S.	24.18	2.12	51.26
9977	Carriage of materials	L.S.	24.18	2.12	51.26
	LABOUR				
0116	Fitter (grade 1)	day	3.00	784.00	2352.00
0117	Assistant Fitter or 2nd class Fitter	day	3.00	714.00	2142.00
0114	Beldar	day	6.00	645.00	3870.00
	TOTAL				9357.52 W
	Add 1 % Water charges on "W"				93.58
	TOTAL				9451.10 X
	Add GST on "X" (multiplying factor 0.1405)				1327.88
	TOTAL				10778.98 Y
	Add 15% CPOH on "Y"				1616.85
	TOTAL				12395.82 Z
	Add Cess @ 1% on "Z"				123.96
	Cost of 10 joints				12519.78
	Cost of one joint				1251.98
	Say				1252.00
	FOR DPA 30% LESS				**876.40**

18.25.8 400 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	7.40	55.00	407.00
0761	Fuel wood	quintal	1.12	500.00	560.00
	0.74x10=7.40 kg				

0771	Kerosene oil	litre	1.70	50.00	85.00
9999	Sundries	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	4.00	784.00	3136.00
0117	Assistant Fitter or 2nd class Fitter	day	4.00	714.00	2856.00
0114	Beldar	day	8.00	645.00	5160.00
	TOTAL				12318.10 W
	Add 1 % Water charges on "W"				123.18
	TOTAL				12441.28 X
	Add GST on "X" (multiplying factor 0.1405)				
	TOTAL				14189.28 Y
	Add 15% CPOH on "Y"				2128.39
	TOTAL				16317.67 Z
	Add Cess @ 1% on "Z"				163.18
	Cost of 10 joints				16480.85
	Cost of one joint				1648.08
	Say				1648.10
	FOR DPA 30% LESS				**1153.67**

18.25.9 450 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn 0.79x10=7.90 kg	kilogram	7.90	55.00	434.50
0761	Fuel wood	quintal	1.21	500.00	605.00
0771	Kerosene oil	litre	2.27	50.00	113.50
9999	Sundries	L.S.	31.07	2.12	65.87
9977	Carriage of materials	L.S.	31.07	2.12	65.87
	LABOUR				
0116	Fitter (grade 1)	day	4.50	784.00	3528.00
0117	Assistant Fitter or 2nd class Fitter	day	4.50	714.00	3213.00
0114	Beldar	day	9.00	645.00	5805.00
	TOTAL				13830.74 W
	Add 1 % Water charges on "W"				138.31
	TOTAL				13969.04 X
	Add GST on "X" (multiplying factor 0.1405)				1962.65
	TOTAL				15931.69 Y
	Add 15% CPOH on "Y"				2389.75
	TOTAL				18321.45 Z
	Add Cess @ 1% on "Z"				183.21
	Cost of 10 joints				18504.66
	Cost of one joint				1850.47
	Say				1850.45
	FOR DPA 30% LESS				**1295.32**

18.25.10 500 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn 0.85x10=8.50 kg	kilogram	8.50	55.00	467.50
0761	Fuel wood	quintal	1.31	500.00	655.00
0771	Kerosene oil	litre	2.27	50.00	113.50
9999	Sundries	L.S.	33.67	2.12	71.38
9977	Carriage of materials	L.S.	33.67	2.12	71.38
	LABOUR				
0116	Fitter (grade 1)	day	4.75	784.00	3724.00
0117	Assistant Fitter or 2nd class Fitter	day	4.75	714.00	3391.50
0114	Beldar	day	9.50	645.00	6127.50
	TOTAL				14621.76 W
	Add 1 % Water charges on "W"				146.22
	TOTAL				14767.98 X
	Add GST on "X" (multiplying				

Code	Description	Unit	Quantity	Rate	Amount
	factor 0.1405)				
	TOTAL				16842.88 Y
	Add 15% CPOH on "Y"				2526.43
	TOTAL				19369.31 Z
	Add Cess @ 1% on "Z"				193.69
	Cost of 10 joints				19563.00
	Cost of one joint				1956.30
	Say				1956.30
	FOR DPA 30% LESS				**1369.41**

18.25.11 600 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	10.20	55.00	561.00
	1.02x10=10.20 kg				
0761	Fuel wood	quintal	1.68	500.00	840.00
0771	Kerosene oil	litre	2.84	50.00	142.00
9999	Sundries	L.S.	40.30	2.12	85.44
9977	Carriage of materials	L.S.	40.30	2.12	85.44
	LABOUR				
0116	Fitter (grade 1)	day	6.50	784.00	5096.00
0117	Assistant Fitter or 2nd class Fitter	day	6.50	714.00	4641.00
0114	Beldar	day	13.00	645.00	8385.00
	TOTAL				19835.87 W
	Add 1 % Water charges on "W"				198.36
	TOTAL				20034.23 X
	Add GST on "X" (multiplying factor 0.1405)				2814.81
	TOTAL				22849.04 Y
	Add 15% CPOH on "Y"				3427.36
	TOTAL				26276.40 Z
	Add Cess @ 1% on "Z"				262.76
	Cost of 10 joints				26539.16
	Cost of one joint				2653.92
	Say				2653.90
	FOR DPA 30% LESS				**1857.73**

18.26 Supplying pig lead at site of work.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal				
	MATERIAL				
1397	Pig lead	kilogram	100.00	210.00	21000.00
2341	Carriage of Pig lead	tonne	0.10	145.72	14.57
	TOTAL				21014.57 W
	Add 1 % Water charges on "W"				210.15
	TOTAL				21224.72 X
	Add GST on "X" (multiplying factor 0.1405)				2982.07
	TOTAL				24206.79 Y
	Add 15% CPOH on "Y"				3631.02
	TOTAL				27837.81 Z
	Add Cess @ 1% on "Z"				278.38
	Cost of one quintal				28116.19
	Say				28116.20
	FOR DPA 30% LESS				**19681.34**

18.27 Providing flanged joints to double flanged C.I./ D.I. pipes and specials, including testing of joints :

18.27.1 80 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1373	Rubber insertions for 80 mm dia pipe joints	each	10.00	16.00	160.00
1956	Bolts and nuts 16 mm dia 60 mm long	each	40.00	11.50	460.00
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	LABOUR				

0116	Fitter (grade 1)	day	0.15	784.00	117.60
0117	Assistant Fitter or 2nd class Fitter	day	0.15	714.00	107.10
0114	Beldar	day	0.80	645.00	516.00
	TOTAL				1366.49 W
	Add 1 % Water charges on "W"				13.66
	TOTAL				1380.15 X
	Add GST on "X" (multiplying factor 0.1405)				193.91
	TOTAL				1574.06 Y
	Add 15% CPOH on "Y"				236.11
	TOTAL				1810.17 Z
	Add Cess @ 1% on "Z"				18.10
	Cost for 10 joints				1828.28
	Cost for one joint				182.83
	Say				182.85
	FOR DPA 30% LESS				**128.00**

18.27.2 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1374	Rubber insertions for 100 mm dia pipe joints	each	10.00	18.00	180.00
1956	Bolts and nuts 16 mm dia 60 mm long	each	80.00	11.50	920.00
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0117	Assistant Fitter or 2nd class Fitter	day	0.25	714.00	178.50
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				2128.32 W
	Add 1 % Water charges on "W"				21.28
	TOTAL				2149.60 X
	Add GST on "X" (multiplying factor 0.1405)				302.02
	TOTAL				2451.62 Y
	Add 15% CPOH on "Y"				367.74
	TOTAL				2819.36 Z
	Add Cess @ 1% on "Z"				
	Cost for 10 joints				2847.56
	Cost for one joint				284.76
	Say				284.75
	FOR DPA 30% LESS				**199.33**

18.27.3 125 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1375	Rubber insertions for 125 mm dia pipe joints	each	10.00	20.00	200.00
1957	Bolts and nuts 16 mm dia 65 mm long	each	80.00	13.00	1040.00
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0117	Assistant Fitter or 2nd class Fitter	day	0.25	714.00	178.50
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				2268.32 W
	Add 1 % Water charges on "W"				22.68
	TOTAL				2291.00 X
	Add GST on "X" (multiplying factor 0.1405)				321.89
	TOTAL				2612.89 Y
	Add 15% CPOH on "Y"				391.93
	TOTAL				3004.82 Z
	Add Cess @ 1% on "Z"				30.05
	Cost for 10 joints				3034.87
	Cost for one joint				303.49

	Say				303.50
	FOR DPA 30% LESS				**212.45**

18.27.4 150 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1376	Rubber insertions for 150 mm dia pipe joints	each	10.00	20.00	200.00
1958	Bolts and nuts 20 mm dia 65 mm long	each	80.00	15.00	1200.00
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0116	Fitter (grade 1)	day	0.30	784.00	235.20
0117	Assistant Fitter or 2nd class Fitter	day	0.30	714.00	214.20
0114	Beldar	day	1.10	645.00	709.50
	TOTAL				2567.72 W
	Add 1 % Water charges on "W"				25.68
	TOTAL				2593.40 X
	Add GST on "X" (multiplying factor 0.1405)				364.37
	TOTAL				2957.77 Y
	Add 15% CPOH on "Y"				443.67
	TOTAL				3401.43 Z
	Add Cess @ 1% on "Z"				
	Cost for 10 joints				3435.45
	Cost for one joint				343.54
	Say				343.55
	FOR DPA 30% LESS				**240.49**

18.27.5 200 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1377	Rubber insertions for 200 mm dia pipe joints	each	10.00	25.00	250.00
1959	Bolts and nuts 20 mm dia 70 mm long	each	80.00	17.50	1400.00
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0116	Fitter (grade 1)	day	0.30	784.00	235.20
0117	Assistant Fitter or 2nd class Fitter	day	0.30	714.00	214.20
0114	Beldar	day	1.10	645.00	709.50
	TOTAL				2817.72 W
	Add 1 % Water charges on "W"				28.18
	TOTAL				2845.90 X
	Add GST on "X" (multiplying factor 0.1405)				399.85
	TOTAL				3245.74 Y
	Add 15% CPOH on "Y"				486.86
	TOTAL				3732.61 Z
	Add Cess @ 1% on "Z"				37.33
	Cost for 10 joints				3769.93
	Cost for one joint				376.99
	Say				377.00
	FOR DPA 30% LESS				**263.90**

18.27.6 250 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1378	Rubber insertions for 250 mm dia pipe joints	each	10.00	40.00	400.00
1960	Bolts and nuts 20 mm dia 75 mm long	each	120.00	17.00	2040.00
9977	Carriage of materials	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.40	784.00	313.60
0117	Assistant Fitter or 2nd class Fitter	day	0.40	714.00	285.60

0114	Beldar	day	1.30	645.00	838.50
	TOTAL				3889.00 W
	Add 1 % Water charges on "W"				38.89
	TOTAL				3927.89 X
	Add GST on "X" (multiplying factor 0.1405)				551.87
	TOTAL				4479.76 Y
	Add 15% CPOH on "Y"				671.96
	TOTAL				5151.72 Z
	Add Cess @ 1% on "Z"				
	Cost for 10 joints				5203.24
	Cost for one joint				520.32
	Say				520.30
	FOR DPA 30% LESS				**364.21**

18.27.7 300 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1379	Rubber insertions for 300 mm dia pipe joints	each	10.00	45.00	450.00
1960	Bolts and nuts 20 mm dia 75 mm long	each	120.00	17.00	2040.00
9977	Carriage of materials	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.40	784.00	313.60
0117	Assistant Fitter or 2nd class Fitter	day	0.40	714.00	285.60
0114	Beldar	day	1.30	645.00	838.50
	TOTAL				3939.00 W
	Add 1 % Water charges on "W"				39.39
	TOTAL				3978.39 X
	Add GST on "X" (multiplying factor 0.1405)				558.96
	TOTAL				4537.35 Y
	Add 15% CPOH on "Y"				680.60
	TOTAL				5217.96 Z
	Add Cess @ 1% on "Z"				52.18
	Cost for 10 joints				5270.14
	Cost for one joint				527.01
	Say				527.00
	FOR DPA 30% LESS				**368.90**

18.27.8 350 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1380	Rubber insertions for 350 mm dia pipe joints	each	10.00	50.00	500.00
1961	Bolts and nuts 20 mm dia 80 mm long	each	160.00	17.00	2720.00
9977	Carriage of materials	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0117	Assistant Fitter or 2nd class Fitter	day	0.50	714.00	357.00
0114	Beldar	day	1.50	645.00	967.50
	TOTAL				4947.80 W
	Add 1 % Water charges on "W"				49.48
	TOTAL				4997.28 X
	Add GST on "X" (multiplying factor 0.1405)				702.12
	TOTAL				5699.40 Y
	Add 15% CPOH on "Y"				854.91
	TOTAL				6554.30 Z
	Add Cess @ 1% on "Z"				
	Cost for 10 joints				6619.85
	Cost for one joint				661.98
	Say				662.00
	FOR DPA 30% LESS				**463.40**

18.27.9	400 mm diameter pipe				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 joints				
	MATERIAL				
1381	Rubber insertions for 400 mm dia pipe joints	each	10.00	73.00	730.00
1962	Bolts and nuts 24 mm dia 85 mm long	each	160.00	27.00	4320.00
9977	Carriage of materials	L.S.	8.06	2.12	17.09
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0117	Assistant Fitter or 2nd class Fitter	day	0.50	714.00	357.00
0114	Beldar	day	1.50	645.00	967.50
	TOTAL				6783.59 W
	Add 1 % Water charges on "W"				67.84
	TOTAL				6851.42 X
	Add GST on "X" (multiplying factor 0.1405)				962.62
	TOTAL				7814.05 Y
	Add 15% CPOH on "Y"				1172.11
	TOTAL				8986.16 Z
	Add Cess @ 1% on "Z"				89.86
	Cost for 10 joints				9076.02
	Cost for one joint				907.60
	Say				907.60
	FOR DPA 30% LESS				**635.32**

18.27.10	450 mm diameter pipe				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 joints				
	MATERIAL				
1382	Rubber insertions for 450 mm dia pipe joints	each	10.00	92.00	920.00
1962	Bolts and nuts 24 mm dia 85 mm long	each	200.00	27.00	5400.00
9977	Carriage of materials	L.S.	8.06	2.12	17.09
	LABOUR				
0116	Fitter (grade 1)	day	0.60	784.00	470.40
0117	Assistant Fitter or 2nd class Fitter	day	0.60	714.00	428.40
0114	Beldar	day	1.70	645.00	1096.50
	TOTAL				8332.39 W
	Add 1 % Water charges on "W"				83.32
	TOTAL				8415.71 X
	Add GST on "X" (multiplying factor 0.1405)				1182.41
	TOTAL				9598.12 Y
	Add 15% CPOH on "Y"				1439.72
	TOTAL				11037.84 Z
	Add Cess @ 1% on "Z"				
	Cost for 10 joints				11148.21
	Cost for one joint				1114.82
	Say				1114.80
	FOR DPA 30% LESS				**780.36**

18.27.11	500 mm diameter pipe				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 joints				
	MATERIAL				
1383	Rubber insertions for 500 mm dia pipe joints	each	10.00	110.00	1100.00
1963	Bolts and nuts 24 mm dia 90 mm long	each	200.00	31.00	6200.00
9977	Carriage of materials	L.S.	8.06	2.12	17.09
	LABOUR				
0116	Fitter (grade 1)	day	0.65	784.00	509.60
0117	Assistant Fitter or 2nd class Fitter	day	0.65	714.00	464.10
0114	Beldar	day	1.80	645.00	1161.00
	TOTAL				9451.79 W
	Add 1 % Water charges on "W"				94.52

	TOTAL				9546.31 X
	Add GST on "X" (multiplying factor 0.1405)				1341.26
	TOTAL				10887.56 Y
	Add 15% CPOH on "Y"				1633.13
	TOTAL				12520.70 Z
	Add Cess @ 1% on "Z"				125.21
	Cost of 10 joints				12645.90
	Cost for one joint				1264.59
	Say				1264.60
	FOR DPA 30% LESS				**885.22**

18.27.12 600 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 joints				
	MATERIAL				
1384	Rubber insertions for 600 mm dia pipe joints	each	10.00	125.00	1250.00
1964	Bolts and nuts 27 mm dia 100 mm long	each	200.00	37.00	7400.00
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	LABOUR				
0116	Fitter (grade 1)	day	0.75	784.00	588.00
0117	Assistant Fitter or 2nd class Fitter	day	0.75	714.00	535.50
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				11083.62 W
	Add 1 % Water charges on "W"				110.84
	TOTAL				11194.45 X
	Add GST on "X" (multiplying factor 0.1405)				1572.82
	TOTAL				12767.28 Y
	Add 15% CPOH on "Y"				1915.09
	TOTAL				14682.37 Z
	Add Cess @ 1% on "Z"				
	Cost for 10 joints				14829.19
	Cost for one joint				1482.92
	Say				1482.90
	FOR DPA 30% LESS				**1038.03**

18.28 Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) :

18.28.1 100 mm diameter

18.28.1.1 Class I

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sluice valves				
	MATERIAL				
1940	C.I.sluice valve (with caps) class I : 100 mm dia	each	10.00	2450.00	24500.00
	Carriage of sluice valves wt.= 44.3x10=443kg= 0.443t. say 0.44t				
2309	Carriage of Cast iron fittings	tonne	0.44	145.72	64.12
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	4.43	546.00	2418.78 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				
18.30.2	(Rate as per item No.18.30.2 Of SH: Water Supply)	each	20.00	284.75	5695.00 A
	TOTAL				32677.90 W
	Add 1 % Water charges on "W-A"				245.64
	TOTAL				32923.54 X
	Add GST on "X-A" (multiplying factor 0.1405)				3485.77
	TOTAL				36409.31 Y
	Add 15% CPOH on "Y-A"				4244.33
	TOTAL				40653.64 Z
	Add Cess @ 1% on "Z-A"				325.40

	Cost of 10 valves				40979.04
	Cost of 1 valve				4097.90
	Say				4097.90
	FOR DPA 30% LESS				**2868.53**

18.28.1.2 Class II

Code	Description	Unit	Quantity	Rate	Amount
3311 2309 18.24	Details of cost for 10 sluice valves MATERIAL C.I.sluice valve (with caps) class II : 100 mm dia Carriage of sluice valves 56.3x10=563kg= 0.563t=0.56t Carriage of Cast iron fittings LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply) Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.	each tonne quintal	10.00 0.56 5.63	2700.00 145.72 546.00	27000.00 81.60 3073.98 A
18.30.2	(Rate as per item No.18.30.2 Of SH: Water Supply)	each	20.00	284.75	5695.00 A
	TOTAL				35850.58 W
	Add 1 % Water charges on "W-A"				270.82
	TOTAL				36121.40 X
	Add GST on "X-A" (multiplying factor 0.1405)				3843.01
	TOTAL				39964.41 Y
	Add 15% CPOH on "Y-A"				4679.32
	TOTAL				44643.73 Z
	Add Cess @ 1% on "Z-A"				358.75
	Cost of 10 valves				45002.48
	Cost of 1 valve				4500.25
	Say				4500.25
	FOR DPA 30% LESS				**3150.18**

18.28.2 125 mm diameter
18.28.2.1 Class I

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sluice valves MATERIAL				
1941	C.I.sluice valve (with caps) class I : 125 mm dia	each	10.00	2610.00	26100.00
	Carriage of sluice valves wt. = 56.3x10=563kg = 0.563t. say 0.56t				
2309	Carriage of Cast iron fittings	tonne	0.56	145.72	81.60
18.24	LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply)	quintal	5.63	546.00	3073.98 A
18.30.3	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc. (Rate as per item No.18.30.3 Of SH: Water Supply)	each	20.00	303.50	6070.00 A
	TOTAL				35325.58 W
	Add 1 % Water charges on "W-A"				261.82
	TOTAL				35587.40 X
	Add GST on "X-A" (multiplying factor 0.1405)				3715.30
	TOTAL				39302.70 Y
	Add 15% CPOH on "Y-A"				4523.81
	TOTAL				43826.51 Z
	Add Cess @ 1% on "Z-A"				346.83
	Cost of 10 valves				44173.33
	Cost of 1 valve				4417.33
	Say				4417.35
	FOR DPA 30% LESS				**3092.15**

18.28.2.2 Class II

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sluice valves				
	MATERIAL				
3314	C.I.sluice valve (with caps) class II :				
	125 mm dia	each	10.00	3300.00	33000.00
	Carriage of sluice valves				
	wt. = 68.3x10=683kg = 0.68t say 0.68t				
2309	Carriage of Cast iron fittings	tonne	0.68	145.72	99.09
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of				
	SH: Water Supply)	quintal	6.83	546.00	3729.18 A
	Providing flanged joints to sluice				
	valves with bolts, nuts and rubber				
	insertion etc.				
18.30.3	(Rate as per item No.18.30.3 Of				
	SH: Water Supply)	each	20.00	303.50	6070.00 A
	TOTAL				42898.27 W
	Add 1 % Water charges on "W-A"				330.99
	TOTAL				43229.26 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				4696.93
	TOTAL				47926.19 Y
	Add 15% CPOH on "Y-A"				5719.05
	TOTAL				53645.24 Z
	Add Cess @ 1% on "Z-A"				438.46
	Cost of 10 valves				54083.70
	Cost of 1 valve				5408.37
	Say				5408.35
	FOR DPA 30% LESS				**3785.85**

18.28.3 150 mm diameter

18.28.3.1 Class I

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sluice valves MATERIAL				
	C.I.sluice valve (with caps) class I : 150 mm dia				
	Carriage of sluice valves				
	wt. = 72.5x10=725kg = 0.725t.				
	say 0.72t				
1942		each	10.00	3650.00	36500.00
2309	Carriage of Cast iron fittings LABOUR for laying	tonne	0.72	145.72	104.92
18.24	sluice valve (Rate as per item No. 18.24 Of SH: Water Supply)	quintal	7.25	546.00	3958.50 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				
18.30.4	(Rate as per item No.18.30.4 Of				
	SH: Water Supply)	each	20.00	343.55	6871.00 A
	TOTAL				47434.42 W
	Add 1 % Water charges on "W-A"				366.05
	TOTAL				47800.47 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				5194.42
	TOTAL				52994.89 Y
	Add 15% CPOH on "Y-A"				6324.81
	TOTAL				59319.70 Z
	Add Cess @ 1% on "Z-A"				484.90
	Cost of 10 valves				59804.60
	Cost of 1 valve				5980.46
	Say				5980.45
	FOR DPA 30% LESS				**4186.32**

18.28.3.2 Class II

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sluice valves				
	MATERIAL				
3317	C.I.sluice valve (with caps) class II :				
	150 mm dia	each	10.00	4100.00	41000.00

	Carriage of sluice valves wt. = 86.5x10=865kg = 0.865t. say 0.865t				
2309	Carriage of Cast iron fittings	tonne	0.865	145.72	126.05
18.24	LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply)	quintal	8.65	546.00	4722.90 A
18.30.4	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc. (Rate as per item No.18.30.4 Of SH: Water Supply)	each	20.00	343.55	6871.00 A
	TOTAL				52719.95 W
	Add 1 % Water charges on "W-A"				411.26
	TOTAL				53131.21 X
	Add GST on "X-A" (multiplying factor 0.1405)				5835.99
	TOTAL				58967.20 Y
	Add 15% CPOH on "Y-A"				7106.00
	TOTAL				66073.20 Z
	Add Cess @ 1% on "Z-A"				544.79
	Cost of 10 valves				66617.99
	Cost of 1 valve				6661.80
	Say				6661.80
	FOR DPA 30% LESS				**4663.26**

18.28.4 200 mm diameter

18.28.4.1 Class I

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sluice valves MATERIAL				
1943	C.I.sluice valve (with caps) class I : 200 mm dia	each	10.00	7600.00	76000.00
	Carriage of sluice valves wt. = 121.5x10=1215kg = 1.215t. say 1.22t				
2309	Carriage of Cast iron fittings	tonne	1.22	145.72	177.78
18.24	LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply)	quintal	12.15	546.00	6633.90 A
18.30.5	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc. (Rate as per item No.18.30.5 Of SH: Water Supply)	each	20.00	377.00	7540.00 A
	TOTAL				90351.68 W
	Add 1 % Water charges on "W-A"				761.78
	TOTAL				91113.46 X
	Add GST on "X-A" (multiplying factor 0.1405)				10810.01
	TOTAL				101923.46 Y
	Add 15% CPOH on "Y-A"				13162.43
	TOTAL				115085.90 Z
	Add Cess @ 1% on "Z-A"				1009.12
	Cost of 10 valves				116095.02
	Cost of 1 valve				11609.50
	Say				11609.50
	FOR DPA 30% LESS				**8126.65**

18.28.4.2 Class II

Code	Description	Unit	Quantity	Rate	Amount

3320 2309 18.24	Details of cost for 10 sluice valves MATERIAL C.I.sluice valve (with caps) class II : 200 mm dia Carriage of sluice valves wt. = 150.5x10=1505 kg = 1.5 t. say 1.5 t Carriage of Cast iron fittings LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply) Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.	each tonne quintal	10.00 1.50 15.05	8900.00 145.72 546.00	89000.00 218.58 8217.30 A
18.30.5	(Rate as per item No.18.30.5 Of SH: Water Supply)	each	20.00	377.00	7540.00 A
	TOTAL				104975.88 W
	Add 1 % Water charges on "W-A"				892.19
	TOTAL				105868.07 X
	Add GST on "X-A" (multiplying factor 0.1405)				12660.56
	TOTAL				118528.63 Y
	Add 15% CPOH on "Y-A"				15415.70
	TOTAL				133944.33 Z
	Add Cess @ 1% on "Z-A"				1181.87
	Cost of 10 valves				135126.20
	Cost of 1 valve				13512.62
	Say				13512.60
	FOR DPA 30% LESS				**9458.82**

18.28.5 250 mm diameter

18.28.5.1 Class I

Code	Description	Unit	Quantity	Rate	Amount
1944	Details of cost for 10 sluice valves MATERIAL C.I.sluice valve (with caps) class I : 250 mm dia	each	10.00	10980.00	109800.00
	Carriage of sluice valves wt. = 179.9x10=1799kg = 1.799t. say 1.80t				
2309	Carriage of Cast iron fittings	tonne	1.80	145.72	262.30
18.24	LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply)	quintal	17.99	546.00	9822.54 A
18.30.6	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc. (Rate as per item No.18.30.6 Of SH: Water Supply)	each	20.00	520.30	10406.00 A
	TOTAL				130290.84 W
	Add 1 % Water charges on "W-A"				1100.62
	TOTAL				131391.46 X
	Add GST on "X-A" (multiplying factor 0.1405)				15618.39
	TOTAL				147009.85 Y
	Add 15% CPOH on "Y-A"				19017.20
	TOTAL				166027.05 Z
	Add Cess @ 1% on "Z-A"				1457.99
	Cost of 10 valves				167485.03
	Cost of 1 valve				16748.50
	Say				16748.50
	FOR DPA 30% LESS				**11723.95**

18.28.5.2 Class II

Code	Description	Unit	Quantity	Rate	Amount
3321	Details of cost for 10 sluice valves MATERIAL C.I.sluice valve (with caps) class II : 250 mm dia	each	10.00	15000.00	150000.00
	Carriage of sluice valves				

	wt. = 229.9x10=2299kg = 2299t.				
	say 2.30t				
2309	Carriage of Cast iron fittings	tonne	2.30	145.72	335.16
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	22.99	546.00	12552.54 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				
18.30.6	(Rate as per item No.18.30.6 Of SH: Water Supply)	each	20.00	520.30	10406.00 A
	TOTAL				173293.70 W
	Add 1 % Water charges on "W-A"				1503.35
	TOTAL				174797.05 X
	Add GST on "X-A" (multiplying factor 0.1405)				21333.31
	TOTAL				196130.36 Y
	Add 15% CPOH on "Y-A"				25975.77
	TOTAL				222106.13 Z
	Add Cess @ 1% on "Z-A"				1991.48
	Cost of 10 valves				224097.61
	Cost of 1 valve				22409.76
	Say				22409.75
	FOR DPA 30% LESS				**15686.83**

18.28.6 300 mm diameter

18.28.6.1 Class I

Code	Description	Unit	Quantity	Rate	Amount
1945 2309 18.24	Details of cost for 10 sluice valves MATERIAL C.I.sluice valve (with caps) class I : 300 mm dia Carriage of sluice valves wt. = 242.4x10=2424kg = 2.424t. say 2.42t Carriage of Cast iron fittings LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply) Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.	each tonne quintal	10.00 2.42 24.24	15500.00 145.72 546.00	155000.00 352.64 13235.04 A
18.30.7	(Rate as per item No.18.30.7 Of SH: Water Supply)	each	20.00	527.00	10540.00 A
	TOTAL				179127.68 W
	Add 1 % Water charges on "W-A"				1553.53
	TOTAL				180681.21 X
	Add GST on "X-A" (multiplying factor 0.1405)				22045.32
	TOTAL				202726.53 Y
	Add 15% CPOH on "Y-A"				26842.72
	TOTAL				229569.25 Z
	Add Cess @ 1% on "Z-A"				2057.94
	Cost of 10 valves				231627.19
	Cost of 1 valve				23162.72
	Say				23162.70
	FOR DPA 30% LESS				**16213.89**

18.28.6.2 Class II

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sluice valves MATERIAL				
3326	C.I.sluice valve (with caps) class II : 300 mm dia	each	10.00	18500.00	185000.00
	Carriage of sluice valves				
	wt. = 303.4x10=3034kg = 3.304t.				
	Say 3.03 tonne.				
2309	Carriage of Cast iron fittings	tonne	3.03	145.72	441.53
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of				

	SH: Water Supply)	quintal	30.34	546.00	16565.64 A
18.30.7	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc. (Rate as per item No.18.30.7 Of SH: Water Supply)	each	20.00	527.00	10540.00 A
	TOTAL				212547.17 W
	Add 1 % Water charges on "W-A"				1854.42
	TOTAL				214401.59 X
	Add GST on "X-A" (multiplying factor 0.1405)				26315.08
	TOTAL				240716.67 Y
	Add 15% CPOH on "Y-A"				32041.65
	TOTAL				272758.32 Z
	Add Cess @ 1% on "Z-A"				2456.53
	Cost of 10 valves				275214.85
	Cost of 1 valve				27521.48
	Say				27521.50
	FOR DPA 30% LESS				**19265.05**

18.29 Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design :

18.29.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one chamber				
	MATERIAL				
2.8.1	(i) Earth work in excavation including refilling and disposal of surplus earth 0.68x0.68x0.65m=0.301cum. (Rate as per item no. 2.8.1 of SH: Earth work)	cum	0.30	286.85	86.055 A
2.25	Rate as per item No.2.25	cum	0.30	253.95	76.19 A
4.1.11	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 0.68x0.68x0.075m=0.035cum. Say 0.04 cum. Rate as per item no 4.1.11 of SH : Concrete work	cum	0.04	5660.45	226.42 A
6.1.1	(iii) Second class brick work in cement mortar 1:4 (1 Cement : 4 coarse sand) in foundations and plinth 1.66mx0.115x0.50m=0.095cum. Say 0.10 cum. Rate as per item no 6.1.1 of SH : Brick Work	cum	0.10	6882.00	688.20 A
13.9.1	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 1.20x0.50=0.60sqm 0.30x0.30=0.09sqm. Total =0.69sqm. Say 0.70sqm. Rate as per item no 13.9.1 of SH : Finishing	sqm	0.70	386.55	270.59 A
1304	Surface box for stop cock	each	1.00	125.00	125.00
	(vi)				
9977	Carriage of C.I. surface box	L.S.	1.43	2.12	3.03
	(vii) Cement concrete 1:2:4 (1 Cement : 2 Coarse sand : 4 graded stone				

	aggregate 20mm nominal size) in slab = 0.53mx0.53mx0.075m = 0.02107cum. Less surface box 0.112x0.112x0.076 =(-)0.00094 cum. = 0.0201 cum. Say 0.02cum.				
5.3	Rate as per item No.5.3 SH : R.C.C	cum	0.02	10719.30	214.39 A
	(viii) Less labour for not lifting the materilas upto floor five level				
0115	Coolie	day	-0.038	645.00	-24.51
	(ix)				
9999	Sundries	L.S.	4.16	2.12	8.82
	TOTAL				1674.17 W
	Add 1 % Water charges on "W-A"				1.12
	TOTAL				1675.29 X
	Add GST on "X-A" (multiplying factor 0.1405)				15.94
	TOTAL				1691.23 Y
	Add 15% CPOH on "Y-A"				19.41
	TOTAL				1710.65 Z
	Add Cess @ 1% on "Z-A"				1.49
	Cost of one manhole				1712.13
	Say				1712.15
	FOR DPA 30% LESS				**1198.51**

18.30 Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.30.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
2.8.1 2.25 4.1.11	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 1.21x1.21x1.00m=1.464cum. Say 1.46 cum. Rate as per item no. 2.8.1 of SH: Earth work Rate as per item No.2.25 of SH: Earth Work (ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.21x1.21x0.1m=0.146cum. Say 0.15 cum. Rate as per item no 4.1.11 of SH : Concrete Work (iii) Second class brick work in cement mortar 1: 4(1 Cement : 4coarse sand) in foundations and plinth 3.32mx0.23mx0.75m=0.573cum. Say 0.57 cum.	cum cum cum	1.46 1.46 0.15	286.85 253.95 5660.45	418.80 A 370.77 A 849.07 A

6.1.1	Rate as per item no 6.1.1 of SH : Brick Work (iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 2.40x0.75=1.80sqm. 0.60x0.60=0.36sqm. Total = 2.16sqm. Rate as per item no 13.9.1 of SH : Finishing (v) C.I. surface box with hinged cover 100x100x75mm (inside) Surface box for sluice valve (vi) Carriage of C.I. surface box (vii) Cement concrete 1:2:4 (1 Cement : 2 Coarse sand ; 4 graded stone aggregate 20mm nominal size) in slab = 1.06mx1.06mx0.15m = 0.1685 cum. Less surface box 3.142/4xd2x0.18m -- 0.7854x0.156mx0.156mx0.18 = (-)0.0034 cum. = 0.1651 cum. Say 0.17 cum. Rate as per item No.5.3 Of SH: RCC (viii) Less labour for not lifting the materilas upto floor five level Coolie (ix) Mild steel reinforcement for RCC work etc. 0.165cum.x80kg/cum. = 13.2kg Rate as per item no. 5.22.1 of SH : RCC work (x) Form work 0.60mx0.60m =0.36sqm.+ 3.32mx0.15m=0.50sqm. = 0.86 sqm. Rate as per item No.5.9.3 Of SH: RCC (xi) Sundries TOTAL Add 1 % Water charges on "W-A" TOTAL Add GST on "X-A" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y-A" TOTAL Add Cess @ 1% on "Z-A" Cost of one manhole	cum	0.57	6882.00	3922.74 A
13.9.1					
		sqm	2.16	386.55	834.95 A
1305		each	1.00	210.00	210.00
9977		L.S.	8.06	2.12	17.09
5.3		cum	0.17	10719.30	1822.28 A
0115		day	-0.32	645.00	-206.40
5.22.1					
		kg	13.20	88.95	1174.14 A
5.9.3		sqm	0.86	766.55	659.23 A
9999		L.S.	8.06	2.12	17.09
					10089.75 W
					0.38
					10090.13 X
					5.36
					10095.49 Y
					6.53
					10102.02 Z
					0.50
					10102.52
					10102.50
	FOR DPA 30% LESS				**7071.75**

18.31 Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.31.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one chamber				
	MATERIAL				
	(i) Earth work in excavation including				
	refilling and disposal of surplus earth				
	1.51X1.51X1.25 m = 2.85cum.				

2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	2.85	286.85	817.5225 A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	2.85	253.95	723.76 A
	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.51x1.51x0.1m=0.228cum. Say 0.23 cum.				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.23	5660.45	1301.90 A
	(iii) Second class brick work in cement foundations and plinth foundations and plinth 4.52mx0.23mx1.00m=1.04cum.				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	1.04	6882.00	7157.28 A
	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 3.60mx1.00m=3.60sqm 0.90mx0.90m =0.81sqm. Total=4.41sqm.				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	4.41	386.55	1704.69 A
	(v) C.I. surface box with chained lid.				
1305	Surface box for sluice valve	each	1.00	210.00	210.00
9977	(vi) Carriage of C.I. surface box	L.S.	8.06	2.12	17.09
	(vii) Cement concrete 1:2:4 (1 Cement : 2 Coarse sand ; 4 graded stone aggregate 20mm nominal size) in slab = 1.36mx1.36mx0.15m = 0.2774 cum. Less surface box 0.7854x0.156mx 0.156mx 0.18m = (-)0.0034 cum. = 0.2740 cum. Say 0.27 cum.				
5.3	Rate as per item No.5.3 Of SH: RCC	cum	0.27	10719.30	2894.21 A
	(viii) Less labour for not lifting the materilas upto floor five level				
0115	Coolie	day	-0.51	645.00	-328.95
	(ix) Mild steel reinforcement for RCC work etc. 0.274cum.x80kg/cum. = 21.92 kg.				
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	21.92	88.95	1949.78 A
	(x) Form work 0.90mx0.90m=0.81sqm.+ 4.52mx0.15m = 0.68 sqm. Total= 1.49 sqm.				
5.9.3	Rate as per item No.5.9.3 Of SH: RCC	sqm	1.49	766.55	1142.16 A
	(xi)				
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				17606.53 W
	Add 1 % Water charges on "W-A"				-0.85
	TOTAL				17605.68 X
	Add GST on "X-A" (multiplying factor 0.1405)				-12.03
	TOTAL				17593.65 Y
	Add 15% CPOH on "Y-A"				-14.65
	TOTAL				17579.00 Z
	Add Cess @ 1% on "Z-A"				-1.12
	Cost of one manhole				17577.88
	Say				17577.90
	FOR DPA 30% LESS				**12304.53**

18.32 Constructing masonry Chamber 120x120x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.32.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
2.8.1	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 1.81X1.81X1.25M Rate as per item no. 2.8.1 of SH: Earth work	cum	4.10	286.85	1176.09 A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	4.10	253.95	1041.20 A
4.1.11	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.81x1.81x0.1m=0.328cum. Say 0.33 cum. Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.33	5660.45	1867.95 A
6.1.1	(iii) Second class brick work in cement mortar 1:4 (1 Cement : 4coarse sand) in foundations and plinth 5.72mx0.23mx1.00m=1.316cum. Say 1.32 cum. Rate as per item no 6.1.1 of SH : Brick Work	cum	1.32	6882.00	9084.24 A
13.9.1	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 4.80mx1.00m=4.80sqm. 1.20mx1.20m=1.44sqm. Total=6.42sqm. Rate as per item no 13.9.1 of SH : Finishing	sqm	6.42	386.55	2481.65 A
1305	(v) C.I. surface box with chained lid Surface box for sluice valve	each	1.00	210.00	210.00
9977	(vi) Carriage of C.I. surface box	L.S.	8.06	2.12	17.09
5.3	(vii) Cement concrete 1:2:4 (1 Cement : 2 Coarse sand : 4 graded stone aggregate 20mm nominal size) in slab = 1.66mx1.66mx0.15m = 0.4133 cum. Less surface box 0.7854x0.156mx 0.156mx0.18m = (-)0.0034 cum. Total= 0.4099 cum. Say 0.41 cum. Rate as per item No.5.3 Of SH: RCC	cum	0.41	10719.30	4394.91 A
0115	(viii) Less labour for not lifting the materilas upto floor five level Coolie	day	-0.77	645.00	-496.65
5.22.1	(ix) Mild steel reinforcement for RCC slab steel @ 80kg/cum. 0.41cum.x80kg/cum. = 32.80kg. Rate as per item no. 5.22.1 of SH : RCC work	kg	32.80	88.95	
5.9.3	(x) Form work 1.20mx1.20m=1.44sqm.+ 5.72mx0.15m=0.86 sqm. Total = 2.30sqm. Rate as per item No.5.9.3 Of SH: RCC (xi)	sqm	2.30	766.55	1763.07 A
9999	Sundries	L.S.	8.06	2.12	17.09

	TOTAL				24474.18 W
	Add 1 % Water charges on "W-A"				-2.52
	TOTAL				24471.66 X
	Add GST on "X-A" (multiplying factor 0.1405)				-35.83
	TOTAL				24435.83 Y
	Add 15% CPOH on "Y-A"				-43.62
	TOTAL				24392.21 Z
	Add Cess @ 1% on "Z-A"				-3.34
	Cost of one manhole				24388.86
	Say				24388.85
	FOR DPA 30% LESS				**17072.20**

18.33 Constructing masonry Chamber 60x60x75 cm, inside in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm top and 165 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.33.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
2.8.1	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 1.21X1.21X1.00m = 1.464cum. Say 1.46cum. Rate as per item no. 2.8.1 of SH: Earth work Rate as per item No.2.25 of SH: Earth work (ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.21x1.21x0.1m=0.146cum. Say 0.15 cum Rate as per item no 4.1.11 of SH : Concrete Work (iii) Second class brick work in cement mortar 1:4 (1 Cement : 4 coarse sand) in foundations and plinth 3.32mx0.23mx0.75m=0.573cum. Say 0.57 cum. Rate as per item no 6.1.1 of SH : Brick Work (iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 2.40mx0.75m=1.80sqm. 0.90mx0.90m =0.36sqm. Total=2.16sqm.	cum cum cum cum	1.46	286.85	418.8A
2.25			1.46	253.95	370.77A
4.1.11			0.15	5660.45	849.07A
6.1.1			0.57	6882.00	3922.74A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.16	386.55	834.95 A
	(v) C.I. surface box with chained lid				
1305	Surface box for sluice valve	each	1.00	210.00	210.00
9977	(vi) Carriage of C.I. surface box	L.S.	53.82	2.12	114.10
	(vii) Cement concrete 1:2:4 (1 Cement : 2 Coarse sand ; 4 graded stone aggregate 20mm nominal size) in slab = 1.06mx1.06mx0.15m = 0.1685 cum. Less surface box 0.61x0.41mx0.15m= (-)0.0375 cum. = 0.131 cum. Say 0.13 cum.				
5.3	Rate as per item No.5.3 Of SH: RCC	cum	0.13	10719.30	1393.51 A
	(viii) Less labour for not lifting the materilas upto floor five level				
0115	Coolie	day	-0.24	645.00	-154.80
	(ix) Mild steel reinforcement for				

5.22.1	RCC work etc. 0.131cumx80kg/cum. = 10.48kg. Rate as per item no. 5.22.1 of SH : RCC work	kg	10.48	88.95	932.20 A
	(x) Form work 0.60mx0.60m=0.36sqm.+ 3.32mx0.15m = 0.50 sqm. Total =0.86 sqm.				
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (xi)	sqm	0.86	766.55	659.23 A
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				9567.65 W
	Add 1 % Water charges on "W-A"				1.86
	TOTAL				9569.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				26.45
	TOTAL				9595.96 Y
	Add 15% CPOH on "Y-A"				32.20
	TOTAL				9628.16 Z
	Add Cess @ 1% on "Z-A"				2.47
	Cost of one manhole				9630.63
	Say				9630.65
	FOR DPA 30% LESS				**6741.46**

18.34 Constructing masonry Chamber 60x45x50 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for water meter complete with C.I. double flap surface box 400x200x200 mm (inside) with locking arrangement and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.34.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 1.21X1.06X0.85m = 1.09cum.				
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	1.09	286.85	312.67 A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	1.09	253.95	276.81 A
	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.21x1.06x0.1m=0.128cum. Say 0.13 cum.				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.13	5660.45	735.86 A
	(iii) Second class brick work in cement mortar 1:4 (1 Cement : 4 coarse sand) in foundations and plinth 3.02mx0.23mx0.50m=0.347cum. Say 0.35 cum.				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.35	6882.00	2408.70 A
	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 2.10mx0.50m=1.05sqm. 0.60mx0.45m=0.27sqm. Total=1.32sq				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	1.32	386.55	510.25 A

	(v) C.I. surface box 400x200x200mm (inside) with locking arrangement				
1307	Surface box for water meter	each	1.00	250.00	250.00
9977	(vi) Carriage of C.I. surface box	L.S.	13.52	2.12	28.66
	(vii) Cement concrete 1:2:4 (1 Cement : 2 Coarse sand ; 4 graded stone aggregate 20mm nominal size) in slab = 1.06mx0.91mx0.25m = 0.241 cum. Less surface box 0.42x0.22mx0.2m = (-)0.018 cum. = 0.223 cum. Say 0.22 cum.				
5.3	Rate as per item No.5.3 Of SH: RCC	cum	0.22	10719.30	2358.25 A
	(viii) Less labour for not lifting the materilas upto floor five level				
0115	Coolie	day	-0.41	645.00	-264.45
	(ix) Mild steel reinforcement for RCC work steel @ 80kg/cum. 0.223cum.x80kg/cum. = 17.84 kg.				
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	17.84	88.95	1586.87 A
	(x) Form work 0.60mx0.45m=0.27sqm.+ 3.02mx0.25m=0.76sqm. Total = 1.03sqm.				
5.9.3	Rate as per item No.5.9.3 Of SH: RCC	sqm	1.03	766.55	789.55 A
	(xi)				
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				9010.24 W
	Add 1 % Water charges on "W-A"				0.31
	TOTAL				9010.55 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.44
	TOTAL				9014.99 Y
	Add 15% CPOH on "Y-A"				5.41
	TOTAL				9020.40 Z
	Add Cess @ 1% on "Z-A"				0.41
	Cost of one manhole				9020.81
	Say				9020.80
	FOR DPA 30% LESS				**6314.56**

18.35 Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work :

18.35.1 15 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre Perimeter = 0.0673 metre Area=10x0.0673m = 0.673sqm. Priming coat-				
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	0.673	55.50	37.35 A
	Painting two coats excluding priming coat with white paint on new work.				
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	0.673	131.45	88.47 A
9999	Add for delay	L.S.	13.52	2.12	28.66
	TOTAL				154.48 W
	Add 1 % Water charges on "W-A"				0.29
	TOTAL				154.77 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.07
	TOTAL				158.83 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				163.79 Z
	Add Cess @ 1% on "Z-A"				0.38

	Cost of 10 metre				164.17
	Cost of one metre				16.42
	Say				16.40
	FOR DPA 30% LESS				**11.48**

18.35.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	Perimeter = 0.0845 metre				
	Area = 10x0.0845 sqm. = 0.845 sqm.				
	Priming coat-				
13.50.3	Rate as per item no 13.50.3 of				
	SH : Finishing	sqm	0.845	55.50	46.90 A
	Painting two coats excluding priming				
	coat with white paint on new work.				
13.61.1	Rate as per item no 13.61.1 of				
	SH : Finishing	sqm	0.845	131.45	111.08 A
9999	Add for delay	L.S.	13.52	2.12	28.66
	TOTAL				186.64 W
	Add 1 % Water charges on "W-A"				0.29
	TOTAL				186.92 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				4.07
	TOTAL				190.99 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				195.94 Z
	Add Cess @ 1% on "Z-A"				0.38
	Cost of 10 metre				196.32
	Cost of one metre				19.63
	Say				19.65
	FOR DPA 30% LESS				**13.76**

18.35.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	Perimeter = 0.1061 metre				
	Area = 10x0.1061 sqm. = 1.061 sqm.				
	Priming coat-				
13.50.3	Rate as per item no 13.50.3 of				
	SH : Finishing	sqm	1.061	55.50	58.89 A
	Painting two coats excluding priming				
	coat with white paint on new work.				
13.61.1	Rate as per item no 13.61.1 of				
	SH : Finishing	sqm	1.061	131.45	139.47 A
9999	Add for delay	L.S.	20.28	2.12	42.99
	TOTAL				241.35 W
	Add 1 % Water charges on "W-A"				0.43
	TOTAL				241.78 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				6.10
	TOTAL				247.88 Y
	Add 15% CPOH on "Y-A"				
	TOTAL				255.31 Z
	Add Cess @ 1% on "Z-A"				0.57
	Cost of 10 metre				255.88
	Cost of one metre				25.59
	Say				25.60
	FOR DPA 30% LESS				**17.92**

18.35.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	Perimeter = 0.1334 metre				
	Area = 10x0.1334 sqm. = 1.334 sqm.				
	Priming coat-				
13.50.3	Rate as per item no 13.50.3 of				
	SH : Finishing	sqm	1.334	55.50	74.04 A

	Painting two coats excluding priming coat with white paint on new work.				
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.334	131.45	175.35 A
9999	Add for delay	L.S.	20.28	2.12	42.99
	TOTAL				292.38 W
	Add 1 % Water charges on "W-A"				0.43
	TOTAL				292.81 X
	Add GST on "X-A" (multiplying factor 0.1405)				6.10
	TOTAL				298.92 Y
	Add 15% CPOH on "Y-A"				7.43
	TOTAL				306.34 Z
	Add Cess @ 1% on "Z-A"				0.57
	Cost of 10 metre				306.91
	Cost of one metre				30.69
	Say				30.70
	FOR DPA 30% LESS				**21.49**

18.35.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	Perimeter = 0.1520 metre				
	Area = 10x0.1520 sqm. = 1.520 sqm.				
	Priming coat-				
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	1.52	55.50	84.36 A
	Painting two coats excluding priming coat with white paint on new work.				
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.52	131.45	199.80 A
9999	Add for delay	L.S.	26.91	2.12	57.05
	TOTAL				341.21 W
	Add 1 % Water charges on "W-A"				0.57
	TOTAL				341.78 X
	Add GST on "X-A" (multiplying factor 0.1405)				8.10
	TOTAL				349.88 Y
	Add 15% CPOH on "Y-A"				
	TOTAL				359.74 Z
	Add Cess @ 1% on "Z-A"				0.76
	Cost of 10 metre				360.49
	Cost of one metre				36.05
	Say				36.05
	FOR DPA 30% LESS				**25.24**

18.35.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	Perimeter = 0.1894 metre				
	Area = 10x0.1894 sqm. = 1.894 sqm.				
	Priming coat-				
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	1.894	55.50	105.12 A
	Painting two coats excluding priming coat with white paint on new work.				
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.894	131.45	248.97 A
9999	Add for delay	L.S.	26.91	2.12	57.05
	TOTAL				411.13 W
	Add 1 % Water charges on "W-A"				0.57
	TOTAL				411.70 X
	Add GST on "X-A" (multiplying factor 0.1405)				8.10
	TOTAL				419.80 Y
	Add 15% CPOH on "Y-A"				9.86

	TOTAL				429.66 Z
	Add Cess @ 1% on "Z-A"				0.76
	Cost of 10 metre				430.41
	Cost of one metre				43.04
	Say				43.05
	FOR DPA 30% LESS				**30.14**

18.36 Repainting G.I. pipes and fittings with synthetic enamel white paint with one coat of approved quality :

18.36.1 15 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	Painting one coat with white paint on old work.				
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	0.673	86.55	58.25 A
9999	Add for delay	L.S.	8.06	2.12	17.09
	TOTAL				75.34 W
	Add 1 % Water charges on "W-A"				0.17
	TOTAL				75.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.42
	TOTAL				77.93 Y
	Add 15% CPOH on "Y-A"				2.95
	TOTAL				80.88 Z
	Add Cess @ 1% on "Z-A"				0.23
	Cost of 10 metre				81.11
	Cost of one metre				8.11
	Say				8.10
	FOR DPA 30% LESS				**5.67**

18.36.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	Painting one coat with white paint on old work.				
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	0.845	86.55	73.13 A
9999	Add for delay	L.S.	8.06	2.12	17.09
	TOTAL				90.22 W
	Add 1 % Water charges on "W-A"				0.17
	TOTAL				90.39 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.42
	TOTAL				92.82 Y
	Add 15% CPOH on "Y-A"				2.95
	TOTAL				95.77 Z
	Add Cess @ 1% on "Z-A"				0.23
	Cost of 10 metre				96.00
	Cost of one metre				9.60
	Say				9.60
	FOR DPA 30% LESS				**6.72**

18.36.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	Painting one coat with white paint on old work.				
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.061	86.55	91.83 A
9999	Add for delay	L.S.	10.79	2.12	22.87
	TOTAL				114.70 W
	Add 1 % Water charges on "W-A"				0.23
	TOTAL				114.93 X
	Add GST on "X-A" (multiplying				

Code	Description	Unit	Quantity	Rate	Amount
	factor 0.1405)				3.25
	TOTAL				118.18 Y
	Add 15% CPOH on "Y-A"				3.95
	TOTAL				122.13 Z
	Add Cess @ 1% on "Z-A"				0.30
	Cost of 10 metre				122.43
	Cost of one metre				12.24
	Say				12.25
	FOR DPA 30% LESS				**8.58**

18.36.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
13.99.1	Details of cost for 10 metre	sqm	1.334	86.55	115.46 A
9999	Add for delay	L.S.	10.92	2.12	23.15
	TOTAL				138.61 W
	Add 1 % Water charges on "W-A"				0.23
	TOTAL				138.84 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.29
	TOTAL				142.12 Y
	Add 15% CPOH on "Y-A"				4.00
	TOTAL				146.12 Z
	Add Cess @ 1% on "Z-A"				0.31
	Cost of 10 metre				146.43
	Cost of one metre				14.64
	Say				14.65
	FOR DPA 30% LESS				**10.26**

18.36.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
13.99.1	Details of cost for 10 metre Painting one coat with white paint on old work. (Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.52	86.55	131.56 A
9999	Add for delay	L.S.	13.52	2.12	28.66
	TOTAL				160.22 W
	Add 1 % Water charges on "W-A"				0.29
	TOTAL				160.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.07
	TOTAL				164.57 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				169.52 Z
	Add Cess @ 1% on "Z-A"				0.38
	Cost of 10 metre				169.90
	Cost of one metre				16.99
	Say				17.00
	FOR DPA 30% LESS				**11.90**

18.36.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
13.99.1	Details of cost for 10 metre Painting one coat with white paint on old work. (Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.894	86.55	163.93 A
9999	Add for delay	L.S.	13.52	2.12	28.66
	TOTAL				192.59 W
	Add 1 % Water charges on "W-A"				0.29
	TOTAL				192.87 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.07
	TOTAL				196.94 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				201.89 Z
	Add Cess @ 1% on "Z-A"				0.38
	Cost of 10 metre				202.27
	Cost of one metre				20.23

	Say				20.25
	FOR DPA 30% LESS				**14.18**

18.37 Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :

18.37.1 15 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	Painting with anti-corrosive paint				
	two coats.				
13.65.1	(Rate as per item No.13.65.1 sub-heads				
	finishing)	sqm	0.673	115.10	77.46 A
9999	Add for delay	L.S.	8.06	2.12	17.09
	TOTAL				94.55 W
	Add 1 % Water charges on “W-A”				0.17
	TOTAL				94.72 X
	Add GST on “X-A” (multiplying				
	factor 0.1405)				2.42
	TOTAL				97.15 Y
	Add 15% CPOH on “Y-A”				2.95
	TOTAL				100.10 Z
	Add Cess @ 1% on “Z-A”				0.23
	Cost of 10 metre				100.32
	Cost of one metre				10.03
	Say				10.05
	FOR DPA 30% LESS				**7.04**

18.37.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
13.65.1	Details of cost for 10 metre Painting with anti-	sqm	0.845	115.10	97.26 A
9999	Add for delay	L.S.	8.06	2.12	17.09
	TOTAL				114.35 W
	Add 1 % Water charges on "W-A"				0.17
	TOTAL				114.52 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				2.42
	TOTAL				116.94 Y
	Add 15% CPOH on "Y-A"				2.95
	TOTAL				119.89 Z
	Add Cess @ 1% on "Z-A"				0.23
	Cost of 10 metre				120.12
	Cost of one metre				12.01
	Say				12.00
	FOR DPA 30% LESS				**8.40**

18.37.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	Painting with anti-corrosive paint				
	two coats.				
13.65.1	(Rate as per item No.13.65.1				
	sub-heads finishing)	sqm	1.061	115.10	122.12 A
9999	Add for delay	L.S.	10.79	2.12	22.87
	TOTAL				145.00 W
	Add 1 % Water charges on "W-A"				0.23
	TOTAL				145.22 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				3.25
	TOTAL				148.47 Y
	Add 15% CPOH on "Y-A"				3.95
	TOTAL				152.42 Z
	Add Cess @ 1% on "Z-A"				0.30
	Cost of 10 metre				152.73

	Cost of one metre				15.27
	Say				15.25
	FOR DPA 30% LESS				**10.68**

18.37.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
13.65.1	Details of cost for 10 metre Painting with anti-corrosive paint two coats. (Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.334	115.10	153.54 A
9999	Add for delay	L.S.	10.79	2.12	22.87
	TOTAL				176.42 W
	Add 1 % Water charges on "W-A"				0.23
	TOTAL				176.65 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.25
	TOTAL				179.89 Y
	Add 15% CPOH on "Y-A"				3.95
	TOTAL				183.85 Z
	Add Cess @ 1% on "Z-A"				0.30
	Cost of 10 metre				184.15
	Cost of one metre				18.41
	Say				18.40
	FOR DPA 30% LESS				**12.88**

18.37.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
13.65.1	Details of cost for 10 metre Painting with anti-corrosive paint two coats. (Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.52	115.10	174.95 A
9999	Add for delay	L.S.	12.22	2.12	25.91
	TOTAL				200.86 W
	Add 1 % Water charges on "W-A"				0.26
	TOTAL				201.12 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.68
	TOTAL				204.79 Y
	Add 15% CPOH on "Y-A"				4.48
	TOTAL				209.27 Z
	Add Cess @ 1% on "Z-A"				0.34
	Cost of 10 metre				209.61
	Cost of one metre				20.96
	Say				20.95
	FOR DPA 30% LESS				**14.67**

18.37.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
13.65.1	Details of cost for 10 metre Painting with anti-	sqm	1.894	115.10	218.00 A
9999	Add for delay	L.S.	12.22	2.12	25.91
	TOTAL				243.91 W
	Add 1 % Water charges on "W-A"				0.26
	TOTAL				244.16 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.68
	TOTAL				247.84 Y
	Add 15% CPOH on "Y-A"				4.48
	TOTAL				252.32 Z
	Add Cess @ 1% on "Z-A"				0.34
	Cost of 10 metre				252.66
	Cost of one metre				25.27
	Say				25.25
	FOR DPA 30% LESS				**17.68**

18.37.7 65 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 10 metre				
	Painting with anti-corrosive paint				
	two coats.				
13.65.1	(Rate as per item No.13.65.1				
	sub-heads finishing)	sqm	2.387	115.10	274.74 A
9999	Add for delay	L.S.	13.52	2.12	28.66
	TOTAL				303.41 W
	Add 1 % Water charges on "W-A"				0.29
	TOTAL				303.69 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				4.07
	TOTAL				307.76 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				312.71 Z
	Add Cess @ 1% on "Z-A"				0.38
	Cost of 10 metre				313.09
	Cost of one metre				31.31
	Say				31.30
	FOR DPA 30% LESS				**21.91**

18.37.8 80 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	Painting with anti-corrosive paint				
	two coats.				
13.65.1	(Rate as per item No.13.65.1				
	sub-heads finishing)	sqm	2.796	115.10	321.82 A
9999	Add for delay	L.S.	14.82	2.12	31.42
	TOTAL				353.24 W
	Add 1 % Water charges on "W-A"				0.31
	TOTAL				353.55 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				4.46
	TOTAL				358.01 Y
	Add 15% CPOH on "Y-A"				5.43
	TOTAL				363.44 Z
	Add Cess @ 1% on "Z-A"				0.42
	Cost of 10 metre				363.86
	Cost of one metre				36.39
	Say				36.40
	FOR DPA 30% LESS				**25.48**

18.38 Providing and filling sand of grading zone V or coarser grade, allround the G.I. pipes in external work :

18.38.1 15 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of sand filling alround				
	15mm dia. pipe 10 metre long.				
	Width of sand filling = 300mm				
	Depth of sand filling				
	Under the pipe = 75mm+				
	Above the pipe = 150mm+				
	Max. external dia of pipe = 21.8mm				
	= 246.8mm say 247mm				
	Quantity of sand = 10x0.30x0.247				
	= 0.744 cum.				
	Less for pipe = 3.142/4(21.8)^{2}x10				
	= (-)0.004 cum.				
	= 0.74 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of				
	SH:Water supply	cum	0.74	2131.25	1577.13 A
	TOTAL				1577.13
	Cost of 10 metre				1577.13
	Cost of one metre				157.71

	Say				157.70
	FOR DPA 30% LESS				110.39

18.38.1A Sub analysis item for sand filling component

Code	Description	Unit	Quantity	Rate	Amount
	Sub analysis item for sand filling component				
	MATERIAL				
6501	Sand zone V (Jamuna)	cum	1.00	1300.00	1300.00
2335	Carriage of Jamuna sand	cum	1.00	163.93	163.93
	Labour:				
0114	Beldar	day	0.09	645.00	58.05
0115	Coolie	day	0.11	645.00	70.95
	TOTAL				1592.93 W
	Add 1 % Water charges on "W"				15.93
	TOTAL				1608.86 X
	Add GST on "X" (multiplying factor 0.1405)				226.04
	TOTAL				1834.90 Y
	Add 15% CPOH on "Y"				275.24
	TOTAL				2110.14 Z
	Add Cess @ 1% on "Z"				21.10
	Cost of one cum.				2131.24
	Say				2131.25
	FOR DPA 30% LESS				**1491.88**

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of sand filling alround 20mm dia. pipe 10 metre long.				
	Width of sand filling = 300mm				
	Depth of sand filling				
	Under the pipe = 75mm+				
	Above the pipe = 150mm+				
	Max. external dia of pipe = 27.3mm				
	= 252.3 Say 252mm				
	Quantity of sand = 10x0.30x0.252				
	= 0.756 cum.+				
	Less for pipe =3.142/4(27.3)²x10				
	= (-)0.006cum.				
	= 0.750 cum				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.75	2131.25	1598.44 A
	TOTAL				1598.44
	Cost of 10 metre				1598.44
	Cost of one metre				159.84
	Say				159.85
	FOR DPA 30% LESS				**111.895**

18.38.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of sand filling alround 25mm dia. pipe 10 metre long.				
	Width of sand filling = 300mm				
	Depth of sand filling				
	Under the pipe = 75mm+				
	Above the pipe = 150mm+				
	Max. external dia of pipe = 34.2mm				
	= 259.2 Say 259mm				
	Quantity of sand = 10x0.30x0.259				
	= 0.777 cum.+				
	Less for pipe 3.142/4(34.2)²x10				
	= (-)0.009cum.				
	= 0.768 Say 0.77 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.77	2131.25	1641.06 A
	TOTAL				1641.06
	Cost of 10 metre				1641.06

	Cost of one metre				164.11
	Say				164.10
	FOR DPA 30% LESS				**114.87**

18.38.4 **32 mm diameter pipe**

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of sand filling alround 32mm dia. pipe 10 metre long.				
	Width of sand filling = 300mm Depth of sand filling				
	Under the pipe = 75mm+				
	Above the pipe = 150mm+				
	Max. external dia of pipe = 42.9mm				
	= 267.9 Say 268mm				
	Quantity of sand = 10x0.30x0.268				
	= 0.804 cum.+				
	Less for pipe 3.142/4(42.9)^{2}x10				
	= (-)0.014cum.				
	= 0.790 Say 0.79 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.79	2131.25	1683.69 A
	TOTAL				1683.69
	Cost of 10 metre				1683.69
	Cost of one metre				168.37
	Say				168.35
	FOR DPA 30% LESS				**117.845**

18.38.5 **40 mm diameter pipe**

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of sand filling alround				
	40mm dia. pipe 10 metre long.				
	Width of sand filling = 300mm				
	Depth of sand filling				
	Under the pipe = 75mm+				
	Above the pipe = 150mm+				
	Max. external dia of pipe = 48.8mm				
	= 273.8 Say 274mm				
	Quantity of sand = 10x0.30x0.274				
	= 0.82 cum.+				
	Less for pipe 3.142/4(48.8)^{2}x10				
	= (-)0.014cum.				
	= 0.801 Say 0.80 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.8	2131.25	1705.00 A
	TOTAL				1705.00
	Cost of 10 metre				1705.00
	Cost of one metre				170.50
	Say				170.50
	FOR DPA 30% LESS				**119.35**

18.38.6 **50 mm diameter pipe**

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of sand filling alround				
	50mm dia. pipe 10 metre long.				
	Width of sand filling = 300mm				
	Depth of sand filling				
	Under the pipe = 75mm+				
	Above the pipe = 150mm+				
	Max. external dia of pipe = 60.8mm				
	= 285.8 Say 286mm				
	Quantity of sand = 10x0.30x0.286				
	= 0.858 cum.+				
	Less for pipe 3.142/4(60.8)^{2}x10				
	= (-)0.029cum.				
	= 0.829 Say 0.83 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.83	2131.25	1768.94 A
	TOTAL				1768.94
	Cost of 10 metre				1768.94

	Cost of one metre				176.89
	Say				176.90
	FOR DPA 30% LESS				**123.83**
18.38.7	**65 mm diameter pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost of sand filling alround				
	65mm dia. pipe 10 metre long.				
	Width of sand filling = 300mm				
	Depth of sand filling				
	Under the pipe = 75mm+				
	Above the pipe = 150mm+				
	Max. external dia of pipe = 76.6mm				
	= 301.6 Say 302mm				
	Quantity of sand = 10x0.45x0.302				
	= 1.359 cum.+				
	Less for pipe 3.142/4(76.6)²x10				
	= (-)0.046cum.				
	= 1.313 Say 1.31 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	1.31	2131.25	2791.94 A
	TOTAL				2791.94
	Cost of 10 metre				2791.94
	Cost of one metre				279.19
	Say				279.20
	Details of cost of sand filling alround				
	80mm dia. pipe 10 metre long.				
	Width of sand filling = 300mm				
	Depth of sand filling				
	Under the pipe = 75mm+				
	Above the pipe = 150mm+				
	Max. external dia of pipe = 89.9mm				
	= 314.9 Say 315mm				
	Quantity of sand = 10x0.45x0.315				
	= 1.418 cum.+				
	Less for pipe 3.142/4(89.9)²x10				
	= (-)0.0640cum.				
	= 1.354 Say 1.35 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	1.35	2131.25	2877.19 A
	TOTAL				2877.19
	Cost of 10 metre				2877.19
	Cost of one metre				287.72
	Say				287.70
	FOR DPA 30% LESS				**201.39**
18.38.9	**100 mm diameter pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost of sand filling alround				
	100mm dia. pipe 10 metre long.				
	Width of sand filling = 300mm				
	Depth of sand filling				
	Under the pipe = 75mm+				
	Above the pipe = 150mm+				
	Max. external dia of pipe = 115mm				
	= 340mm				
	Quantity of sand = 10x0.45x0.34				
	= 1.53 cum.+				
	Less for pipe 3.142/4(0.115)²x10				
	= (-)0.10cum.				
	= 1.43 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	1.43	2131.25	3047.69 A
	TOTAL				3047.69
	Cost of 10 metre				3047.69
	Cost of one metre				304.77
	Say				304.75

	FOR DPA 30% LESS				213.325

18.38.9 150 mm diameter pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of sand filling alround				
	150mm dia. pipe 10 metre long.				
	Width of sand filling = 300mm				
	Depth of sand filling				
	Under the pipe = 75mm+				
	Above the pipe = 150mm+				
	Max. external dia of pipe = 166.5mm				
	= 391.50mm Say 0.392m				
	Quantity of sand = 10x0.60x0.392				
	= 2.35 cum.+				
	Less for pipe 3.142/4(0.167)^{2}x10				
	= (-)0.22cum.				
	= 2.13 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of				
	SH:Water supply	cum	2.13	2131.25	4539.56 A
	TOTAL				4539.56
	Cost of 10 metre				4539.56
	Cost of one metre				453.96
	Say				453.95
	FOR DPA 30% LESS				317.765

18.39 Boring with 100 mm diameter casing pipe for hand pump / tubewell, in all soils except ordinary hard rocks requiring blasting, including removing the casing pipe after the hand pump / tube well is lowered and tested :

18.39.1 Up to 6 metres depth

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 6m depth				
	LABOUR For boring and removing				
	the pipe-				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	3.00	645.00	1935.00
0010	Hire charges of Derrick monkey rope				
	and other accessories	day	0.50	750.00	375.00
	Depreciation @ 2% of the cost of				
	casing pipe 6metre @ Rs. per metre				
1472	Casing pipe 100 mm dia	metre	0.12	340.00	40.80
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				2771.46 W
	Add 1 % Water charges on "W"				27.71
	TOTAL				2799.18 X
	Add GST on "X" (multiplying				
	factor 0.1405)				393.28
	TOTAL				3192.46 Y
	Add 15% CPOH on "Y"				478.87
	TOTAL				3671.33 Z
	Add Cess @ 1% on "Z"				36.71
	Cost of 6 metre				3708.04
	Cost of one metre				618.01
	Say				618.00
	Details of cost for 6m depth				
	LABOUR for boring and removing				
	the pipe-				
0116	Fitter (grade 1)	day	0.62	784.00	486.08
0114	Beldar	day	3.50	645.00	2257.50
0010	Hire charges of Derrick monkey rope				
	and other accessories	day	0.62	750.00	465.00
	Depreciation @ 2% of the cost of				
	casing pipe 6metre @ Rs. per metre				
1472	Casing pipe 100 mm dia	metre	0.12	340.00	40.80
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				3278.04 W
	Add 1 % Water charges on "W"				32.78
	TOTAL				3310.82 X

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X" (multiplying factor 0.1405)				465.17
	TOTAL				3775.99 Y
	Add 15% CPOH on "Y"				566.40
	TOTAL				4342.39 Z
	Add Cess @ 1% on "Z"				43.42
	Cost of 6 metre				4385.82
	Cost of one metre				730.97
	Say				730.95
	FOR DPA 30% LESS				**511.665**

18.39.3 Beyond 12 m and up to 18 m depth

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 6m depth				
	LABOUR				
	For boring and removing the pipe-				
0116	Fitter (grade 1)	day	0.75	784.00	588.00
0114	Beldar	day	4.00	645.00	2580.00
0010	Hire charges of Derrickmonkey rope and other accessories	day	0.75	750.00	562.50
	Depreciation @ 2% of the cost of casing pipe 6metre @ Rs. per metre				
1472	Casing pipe 100 mm dia	metre	0.12	340.00	40.80
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				3799.96 W
	Add 1 % Water charges on "W"				38.00
	TOTAL				3837.96 X
	Add GST on "X" (multiplying factor 0.1405)				539.23
	TOTAL				4377.20 Y
	Add 15% CPOH on "Y"				656.58
	TOTAL				5033.78 Z
	Add Cess @ 1% on "Z"				50.34
	Cost of 6 metre				5084.11
	Cost of one metre				847.35
	Say				847.35
	FOR DPA 30% LESS				**593.145**

18.40 Providing and placing in position filters of 40 mm diameter G.I. pipe with brass strainer of approved quality.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one strainer 1.5 long				
	MATERIAL				
1882	Strainer brass 40 mm dia 1.5 metre long	each	1.00	625.00	625.00
9977	Carriage to site	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.17	784.00	133.28
0114	Beldar	day	0.17	645.00	109.65
9999	Sundreis including hamp white lead etc.	L.S.	7.15	2.12	15.16
	TOTAL				911.75 W
	Add 1 % Water charges on "W"				9.12
	TOTAL				920.87 X
	Add GST on "X" (multiplying factor 0.1405)				129.38
	TOTAL				1050.25 Y
	Add 15% CPOH on "Y"				157.54
	TOTAL				1207.79 Z
	Add Cess @ 1% on "Z"				12.08
	Cost of 1.5 metre				1219.87
	Cost of one metre				813.24
	Say				813.25
	FOR DPA 30% LESS				**569.275**

18.41 Providing and fixing to filter and lowering to proper levels 40 mm G.I. pipe for tube well including cleaning and priming the tube well.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for a depth of 10 metre				

	MATERIAL				
1549	G.I. pipes 40 mm dia	metre	10.20	290.00	2958.00
	Carriage of 40mm pipe(36.5kg)				
	Added 2% wastage and fitting				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.03723	145.72	5.43
9999	White lead, hamp and oil etc.	L.S.	6.76	2.12	14.33
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.75	645.00	483.75
9999	Sundries	L.S.	7.25	2.12	15.37
	TOTAL				3735.60 W
	Add 1 % Water charges on "W"				37.36
	TOTAL				3772.95 X
	Add GST on "X" (multiplying factor 0.1405)				530.10
	TOTAL				4303.05 Y
	Add 15% CPOH on "Y"				645.46
	TOTAL				4948.51 Z
	Add Cess @ 1% on "Z"				49.49
	Cost for 10 metre				4998.00
	Cost of one metre				499.80
	Say				499.80
	FOR DPA 30% LESS				**349.86**

18.42 Providing and placing in position hand pump of approved quality for 40 mm diameter G.I. pipe complete with all accessories.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one pump				
	MATERIAL				
1693	S.C.I. hand pump	each	1.00	700.00	700.00
9977	Carriage	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.10	784.00	78.40
0114	Beldar	day	0.10	645.00	64.50
9999	Sundries	L.S.	4.42	2.12	9.37
	TOTAL				880.93 W
	Add 1 % Water charges on "W"				8.81
	TOTAL				889.74 X
	Add GST on "X" (multiplying factor 0.1405)				125.01
	TOTAL				1014.75 Y
	Add 15% CPOH on "Y"				152.21
	TOTAL				1166.96 Z
	Add Cess @ 1% on "Z"				11.67
	Cost for one hand pump				1178.63
	Say				1178.65
	FOR DPA 30% LESS				**825.055**

18.43 Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :

18.43.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1641	G.I. Union 15 mm nominal bore	each	1.00	35.00	35.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				196.05 W
	Add 1 % Water charges on "W"				1.96
	TOTAL				198.01 X
	Add GST on "X" (multiplying factor 0.1405)				27.82
	TOTAL				225.83 Y
	Add 15% CPOH on "Y"				33.87

	TOTAL				259.70 Z
	Add Cess @ 1% on "Z"				2.60
	Cost for one no.				262.30
	Say				262.30
	FOR DPA 30% LESS				**183.61**
18.43.2	**20 mm nominal bore**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for one no.				
	MATERIAL				
1642	G.I. Union 20 mm nominal bore	each	1.00	55.00	55.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				216.05 W
	Add 1 % Water charges on "W"				2.16
	TOTAL				218.21 X
	Add GST on "X" (multiplying factor 0.1405)				30.66
	TOTAL				248.87 Y
	Add 15% CPOH on "Y"				37.33
	TOTAL				286.20 Z
	Add Cess @ 1% on "Z"				2.86
	Cost for one no.				289.06
	Say				289.05
	FOR DPA 30% LESS				**202.335**
18.43.3	**25 mm nominal bore**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for one no.				
	MATERIAL				
1643	G.I. Union 25 mm nominal bore	each	1.00	115.00	115.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				276.05 W
	Add 1 % Water charges on "W"				2.76
	TOTAL				278.81 X
	Add GST on "X" (multiplying factor 0.1405)				39.17
	TOTAL				317.98 Y
	Add 15% CPOH on "Y"				47.70
	TOTAL				365.68 Z
	Add Cess @ 1% on "Z"				3.66
	Cost for one no.				369.34
	Say				369.35
	FOR DPA 30% LESS				**258.545**
18.43.4	**32 mm nominal bore**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
1644 9988 0116	Details of cost for one no. MATERIAL G.I. Union 32 mm nominal bore Carriage of materials and sundries LABOUR Fitter (grade 1)	each L.S. day	1.00 1.82 0.11	145.00 2.12 784.00	145.00 3.86 86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				306.05 W
	Add 1 % Water charges on "W"				3.06
	TOTAL				309.11 X
	Add GST on "X" (multiplying factor 0.1405)				43.43
	TOTAL				352.54 Y
	Add 15% CPOH on "Y"				52.88
	TOTAL				405.42 Z
	Add Cess @ 1% on "Z"				4.05
	Cost for one no.				409.47
	Say				409.45
	FOR DPA 30% LESS				**286.615**

18.43.5	40 mm nominal bore				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1645	G.I. Union 40 mm nominal bore	each	1.00	230.00	230.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				391.05 W
	Add 1 % Water charges on "W"				3.91
	TOTAL				394.96 X
	Add GST on "X" (multiplying factor 0.1405)				55.49
	TOTAL				450.45 Y
	Add 15% CPOH on "Y"				67.57
	TOTAL				518.02 Z
	Add Cess @ 1% on "Z"				5.18
	Cost for one no.				523.20
	Say				523.20
	FOR DPA 30% LESS				**366.24**

18.43.6	50 mm nominal bore				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1646	G.I. Union 50 mm nominal bore	each	1.00	310.00	310.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.15	784.00	117.60
0114	Beldar	day	0.15	645.00	96.75
	TOTAL				528.21 W
	Add 1 % Water charges on "W"				5.28
	TOTAL				533.49 X
	Add GST on "X" (multiplying factor 0.1405)				74.96
	TOTAL				608.45 Y
	Add 15% CPOH on "Y"				91.27
	TOTAL				699.71 Z
	Add Cess @ 1% on "Z"				7.00
	Cost for one no.				706.71
	Say				706.70
	FOR DPA 30% LESS				**494.69**

18.43.7	65 mm nominal bore				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1647	G.I. Union 65 mm nominal bore	each	1.00	525.00	525.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.15	784.00	117.60
0114	Beldar	day	0.15	645.00	96.75
	TOTAL				743.21 W
	Add 1 % Water charges on "W"				7.43
	TOTAL				750.64 X
	Add GST on "X" (multiplying factor 0.1405)				105.46
	TOTAL				856.11 Y
	Add 15% CPOH on "Y"				128.42
	TOTAL				984.52 Z
	Add Cess @ 1% on "Z"				9.85
	Cost for one no.				994.37
	Say				994.35
	FOR DPA 30% LESS				**696.045**

18.43.8	80 mm nominal bore				
Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for one no.				
	MATERIAL				
1648	G.I. Union 80mm nominal bore	each	1.00	575.00	575.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.15	784.00	117.60
0114	Beldar	day	0.15	645.00	96.75
	TOTAL				793.21 W
	Add 1 % Water charges on "W"				7.93
	TOTAL				801.14 X
	Add GST on "X" (multiplying factor 0.1405)				112.56
	TOTAL				913.70 Y
	Add 15% CPOH on "Y"				137.06
	TOTAL				1050.76 Z
	Add Cess @ 1% on "Z"				10.51
	Cost for one no.				1061.26
	Say				1061.25
	FOR DPA 30% LESS				**742.875**

18.44 Providing and fixing G.I. Union in existing G.I. pipe line, cutting and threading the pipe and making long screws, including excavation, refilling the earth or cutting of wall and making good the same complete wherever required :

18.44.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1641	G.I. Union 15 mm nominal bore	each	1.00	35.00	35.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				510.43 W
	Add 1 % Water charges on "W"				5.10
	TOTAL				515.53 X
	Add GST on "X" (multiplying factor 0.1405)				72.43
	TOTAL				587.97 Y
	Add 15% CPOH on "Y"				88.19
	TOTAL				676.16 Z
	Add Cess @ 1% on "Z"				6.76
	Cost for one no.				682.92
	Say				682.90
	FOR DPA 30% LESS				**478.03**

18.44.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1642	G.I. Union 20 mm nominal bore	each	1.00	55.00	55.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				530.43 W
	Add 1 % Water charges on "W"				5.30
	TOTAL				535.73 X
	Add GST on "X" (multiplying factor 0.1405)				75.27
	TOTAL				611.00 Y
	Add 15% CPOH on "Y"				91.65
	TOTAL				702.65 Z
	Add Cess @ 1% on "Z"				7.03
	Cost for one no.				709.68
	Say				709.70
	FOR DPA 30% LESS				**496.79**

18.44.3	25 mm nominal bore				
Code	Description	Unit	Quantity	Rate	Amount
1643 9988 0116	Details of cost for one no. MATERIAL G.I. Union 25 mm nominal bore Carriage of materials and sundries LABOUR Fitter (grade 1)	each L.S. day	1.00 1.82 0.33	115.00 2.12 784.00	115.00 3.86 258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				590.43 W
	Add 1 % Water charges on "W"				5.90
	TOTAL				596.33 X
	Add GST on "X" (multiplying factor 0.1405)				83.78
	TOTAL				680.12 Y
	Add 15% CPOH on "Y"				102.02
	TOTAL				782.14 Z
	Add Cess @ 1% on "Z"				7.82
	Cost for one no.				789.96
	Say				789.95
	FOR DPA 30% LESS				**552.965**

18.44.4	32 mm nominal bore				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1644	G.I. Union 32 mm nominal bore	each	1.00	145.00	145.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				620.43 W
	Add 1 % Water charges on "W"				6.20
	TOTAL				626.63 X
	Add GST on "X" (multiplying factor 0.1405)				88.04
	TOTAL				714.67 Y
	Add 15% CPOH on "Y"				107.20
	TOTAL				821.88 Z
	Add Cess @ 1% on "Z"				8.22
	Cost for one no.				830.09
	Say				830.10
	FOR DPA 30% LESS				**581.07**

18.44.5	40 mm nominal bore				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1645	G.I. Union 40 mm nominal bore	each	1.00	230.00	230.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				705.43 W
	Add 1 % Water charges on "W"				7.05
	TOTAL				712.48 X
	Add GST on "X" (multiplying factor 0.1405)				100.10
	TOTAL				812.59 Y
	Add 15% CPOH on "Y"				121.89
	TOTAL				934.47 Z
	Add Cess @ 1% on "Z"				9.34
	Cost for one no.				943.82
	Say				943.80
	FOR DPA 30% LESS				**660.66**

18.44.6	50 mm nominal bore				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1646	G.I. Union 50 mm nominal bore	each	1.00	310.00	310.00

Code	Description	Unit	Quantity	Rate	Amount
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.45	784.00	352.80
0114	Beldar	day	0.45	645.00	290.25
	TOTAL				956.91 W
	Add 1 % Water charges on "W"				9.57
	TOTAL				966.48 X
	Add GST on "X" (multiplying factor 0.1405)				135.79
	TOTAL				1102.27 Y
	Add 15% CPOH on "Y"				165.34
	TOTAL				1267.61 Z
	Add Cess @ 1% on "Z"				12.68
	Cost for one no.				1280.28
	Say				1280.30
	FOR DPA 30% LESS				**896.21**

18.44.7 65 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
1647	G.I. Union 65 mm nominal bore	each	1.00	525.00	525.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.45	784.00	352.80
0114	Beldar	day	0.45	645.00	290.25
	TOTAL				1171.91 W
	Add 1 % Water charges on "W"				11.72
	TOTAL				1183.63 X
	Add GST on "X" (multiplying factor 0.1405)				166.30
	TOTAL				1349.93 Y
	Add 15% CPOH on "Y"				202.49
	TOTAL				1552.42 Z
	Add Cess @ 1% on "Z"				15.52
	Cost for one no.				1567.94
	Say				1567.95
	FOR DPA 30% LESS				**1097.565**

18.44.8 80 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
1648 9988 0116	Details of cost for one no. MATERIAL G.I. Union 80mm nominal bore Carriage of materials and sundries LABOUR Fitter (grade 1)	each L.S. day	1.00 1.82 0.45	575.00 2.12 784.00	575.00 3.86 352.80
0114	Beldar	day	0.45	645.00	290.25
	TOTAL				1221.91 W
	Add 1 % Water charges on "W"				12.22
	TOTAL				1234.13 X
	Add GST on "X" (multiplying factor 0.1405)				173.39
	TOTAL				1407.52 Y
	Add 15% CPOH on "Y"				211.13
	TOTAL				1618.65 Z
	Add Cess @ 1% on "Z"				16.19
	Cost for one no.				1634.84
	Say				1634.85
	FOR DPA 30% LESS				**1144.395**

18.45 Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 500 litres				
	MATERIAL				
1649	Polyethylene water storage tank with cover and suitable locking arrangement	per litre	500.00	6.10	3050.00
9977	Carriage to site	L.S.	179.40	2.12	380.33

9999	Placing at terrace	L.S.	89.70	2.12	190.16
	TOTAL				3620.49 W
	Add 1 % Water charges on "W"				36.20
	TOTAL				3656.70 X
	Add GST on "X" (multiplying factor 0.1405)				513.77
	TOTAL				4170.46 Y
	Add 15% CPOH on "Y"				625.57
	TOTAL				4796.03 Z
	Add Cess @ 1% on "Z"				47.96
	Cost for 500 litre				4843.99
	Cost of one litre				9.69
	Say				9.70
	FOR DPA 30% LESS				**6.79**

18.45A Providing and fixing rectangular high density polyethylene water storage loft tank with cover, conforming to ISI : 12701, colour of opaque white or as approved by Engineer-in-charge. The rate includes making necessary holes for inlet, outlet & over flow pipes. The base support i/c fittings & fixtures for tank shall be paid separately.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. tank of 500 litres				
	MATERIAL				
1649 9977	Polyethylene water storage tank with cover and suitable locking arrangement Carriage to site	per litre L.S.	500.00 179.40	6.10 2.12	3050.00 380.33
9999	Placing at terrace	L.S.	89.70	2.12	190.16
	TOTAL				3620.49 W
	Add 1 % Water charges on "W"				36.20
	TOTAL				3656.70 X
	Add GST on "X" (multiplying factor 0.1405)				513.77
	TOTAL				4170.46 Y
	Add 15% CPOH on "Y"				625.57
	TOTAL				4796.03 Z
	Add Cess @ 1% on "Z"				47.96
	Cost of 500 liters				4843.99
	Cost of 1 litre				9.69
	Say				9.70
	FOR DPA 30% LESS				**6.79**

18.46 Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :

18.46.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7257	C.P. Brass bibcock 15 mm	each	1.00	300.00	300.00
9988	Carrige of material and fixing charges	L.S.	11.57	2.12	24.53
	TOTAL				324.53 W
	Add 1 % Water charges on "W"				3.25
	TOTAL				327.77 X
	Add GST on "X" (multiplying factor 0.1405)				46.05
	TOTAL				373.83 Y
	Add 15% CPOH on "Y"				56.07
	TOTAL				429.90 Z
	Add Cess @ 1% on "Z"				4.30
	Cost of 1 no.				434.20
	Say				434.20
	FOR DPA 30% LESS				**303.94**

18.47 Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.

18.47.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7258	C.P. Brass long nose bibcock 15 mm	each	1.00	500.00	500.00
9988	Carrige of material and fixing charges	L.S.	16.25	2.12	34.45

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				534.45 W
	Add 1 % Water charges on "W"				5.34
	TOTAL				539.79 X
	Add GST on "X" (multiplying factor 0.1405)				75.84
	TOTAL				615.64 Y
	Add 15% CPOH on "Y"				92.35
	TOTAL				707.98 Z
	Add Cess @ 1% on "Z"				7.08
	Cost of 1 no.				715.06
	Say				715.05
	FOR DPA 30% LESS				**500.535**

18.48 Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.

18.48.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7259	C.P. Brass long body bibcock 15 mm	each	1.00	500.00	500.00
9988	Carrige of material and fixing charges	L.S.	13.91	2.12	29.49
	TOTAL				529.49 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				534.78 X
	Add GST on "X" (multiplying factor 0.1405)				75.14
	TOTAL				609.92 Y
	Add 15% CPOH on "Y"				91.49
	TOTAL				701.41 Z
	Add Cess @ 1% on "Z"				7.01
	Cost of 1 no.				708.42
	Say				708.40
	FOR DPA 30% LESS				**495.88**

18.49 Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.

18.49.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7260	C.P. Brass stop cock (concealed) 15 mm	each	1.00	420.00	420.00
9988	Carrige of material and fixing charges	L.S.	11.57	2.12	24.53
	TOTAL				444.53 W
	Add 1 % Water charges on "W"				4.45
	TOTAL				448.97 X
	Add GST on "X" (multiplying factor 0.1405)				63.08
	TOTAL				512.05 Y
	Add 15% CPOH on "Y"				76.81
	TOTAL				588.86 Z
	Add Cess @ 1% on "Z"				5.89
	Cost of 1 no.				594.75
	Say				594.75
	FOR DPA 30% LESS				**416.325**

18.50 Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931

18.50.1 15mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
7261	Details of cost for one no. MATERIAL C.P. Brass angle valve 15 mm	each	1.00	350.00	350.00
9988	Carriage and fixing charges	L.S.	11.31	2.12	23.98
	TOTAL				373.98 W
	Add 1 % Water charges on "W"				3.74
	TOTAL				377.72 X
	Add GST on "X" (multiplying				

	factor 0.1405)				53.07
	TOTAL				430.79 Y
	Add 15% CPOH on "Y"				64.62
	TOTAL				495.40 Z
	Add Cess @ 1% on "Z"				4.95
	Cost of 1 no.				500.36
	Say				500.35
	FOR DPA 30% LESS				**350.245**

18.50A Providing and fixing C.P. Brass extension nipple (size 15mmx50mm) of approved make and quality as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
0593	C.P. Brass Extension Nipple				
	(1/2"x2" size)	each	1.00	40.00	40.00
9999	Sundries	L.S.	2.89	2.12	6.13
	TOTAL				46.13 W
	Add 1 % Water charges on "W"				0.46
	TOTAL				46.59 X
	Add GST on "X" (multiplying				
	factor 0.1405)				6.55
	TOTAL				53.13 Y
	Add 15% CPOH on "Y"				7.97
	TOTAL				61.10 Z
	Add Cess @ 1% on "Z"				0.61
	Cost of 1 no.				61.71
	Say				61.70
	FOR DPA 30% LESS				**43.19**

18.51 Providing and fixing PTMT bib cock of approved quality and colour.

18.51.1 15mm nominal bore, 86 mm long, weighing not less than 88 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
7400	15 mm PTMT bib cock	each	1.00	65.00	65.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				82.09 W
	Add 1 % Water charges on "W"				0.82
	TOTAL				82.91 X
	Add GST on "X" (multiplying				
	factor 0.1405)				11.65
	TOTAL				94.56 Y
	Add 15% CPOH on "Y"				14.18
	TOTAL				108.74 Z
	Add Cess @ 1% on "Z"				1.09
	Cost of 1 no.				109.83
	Say				109.85
	FOR DPA 30% LESS				**76.895**

18.51.2 15 mm nominal bore, 122mm long, weighing not less than 99 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
7401	15 mm PTMT bib cockwith flange (fancy)	each	1.00	90.00	90.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				107.09 W
	Add 1 % Water charges on "W"				1.07
	TOTAL				108.16 X
	Add GST on "X" (multiplying				
	factor 0.1405)				15.20
	TOTAL				123.35 Y
	Add 15% CPOH on "Y"				18.50
	TOTAL				141.86 Z
	Add Cess @ 1% on "Z"				1.42
	Cost of 1 no.				143.28
	Say				143.30
	FOR DPA 30% LESS				**100.31**

18.51.3	15 mm nominal bore, 165 mm long, weighing not less than 110 gms				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
7402	15 mm PTMT bib cock long body with flange	each	1.00	100.00	100.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				117.09 W
	Add 1 % Water charges on "W"				1.17
	TOTAL				118.26 X
	Add GST on "X" (multiplying factor 0.1405)				16.62
	TOTAL				134.87 Y
	Add 15% CPOH on "Y"				20.23
	TOTAL				155.10 Z
	Add Cess @ 1% on "Z"				1.55
	Cost of 1 No..				156.66
	Say				156.65
	FOR DPA 30% LESS				**109.655**

18.51.4	15 mm nominal bore, 90 mm long, weighing not less than 93 gms				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
7859	P.T.M.T. Bib cock with nozzle 15mm	each	1.00	110.00	110.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				127.09 W
	Add 1 % Water charges on "W"				1.27
	TOTAL				128.36 X
	Add GST on "X" (multiplying factor 0.1405)				18.03
	TOTAL				146.39 Y
	Add 15% CPOH on "Y"				21.96
	TOTAL				168.35 Z
	Add Cess @ 1% on "Z"				1.68
	Cost of 1 no.				170.03
	Say				170.05
	FOR DPA 30% LESS				**119.035**

18.52 Providing and fixing PTMT stop cock of approved quality and colour.

18.52.1	15 mm nominal bore, 86 mm long, weighing not less than 88 gms				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
7403	15 mm dia PTMT stop cock (male thread)	each	1.00	60.00	60.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				77.09 W
	Add 1 % Water charges on "W"				0.77
	TOTAL				77.86 X
	Add GST on "X" (multiplying factor 0.1405)				10.94
	TOTAL				88.80 Y
	Add 15% CPOH on "Y"				13.32
	TOTAL				102.12 Z
	Add Cess @ 1% on "Z"				1.02
	Cost of 1 no.				103.14
	Say				103.15
	FOR DPA 30% LESS				**72.205**

18.52.2	20 mm nominal bore, 89 mm long, weighing not less than 88 gms				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
7405	20 mm dia. PTMT stop cock	each	1.00	68.00	68.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				85.09 W
	Add 1 % Water charges on "W"				0.85

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				85.94 X
	Add GST on "X" (multiplying factor 0.1405)				12.07
	TOTAL				98.01 Y
	Add 15% CPOH on "Y"				14.70
	TOTAL				112.71 Z
	Add Cess @ 1% on "Z"				1.13
	Cost of 1 no.				113.84
	Say				113.85
	FOR DPA 30% LESS				**79.695**

18.52.3 Concealed stop cock, 15 mm nominal bore, 108 mm long, weighing not less than 108 gms

Code	Description	Unit	Quantity	Rate	Amount
7861	Details of cost for 1 no. MATERIAL P.T.M.T. Stop cock (concealed) 15mm	each	1.00	120.00	120.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				137.09 W
	Add 1 % Water charges on "W"				1.37
	TOTAL				138.46 X
	Add GST on "X" (multiplying factor 0.1405)				19.45
	TOTAL				157.91 Y
	Add 15% CPOH on "Y"				23.69
	TOTAL				181.60 Z
	Add Cess @ 1% on "Z"				1.82
	Cost of 1 no.				183.41
	Say				183.40
	FOR DPA 30% LESS				**128.38**

18.53 Providing and fixing PTMT pillar cock of approved quality and colour.

18.53.1 15 mm nominal bore, 107 mm long, weighing not less than 110 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
7406	PTMT pillar cock	each	1.00	115.00	115.00
9988	Carriage of materials and fixing charges	L.S.	9.49	2.12	20.12
	TOTAL				135.12 W
	Add 1 % Water charges on "W"				1.35
	TOTAL				136.47 X
	Add GST on "X" (multiplying factor 0.1405)				19.17
	TOTAL				155.64 Y
	Add 15% CPOH on "Y"				23.35
	TOTAL				178.99 Z
	Add Cess @ 1% on "Z"				1.79
	Cost of 1 no.				180.78
	Say				180.80
	FOR DPA 30% LESS				**126.56**

18.53.2 15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
7410	PTMT pillar cock (fancy) 15 mm foam flow.	each	1.00	125.00	125.00
9988	Carriage of materials and fixing charges	L.S.	9.49	2.12	20.12
	TOTAL				145.12 W
	Add 1 % Water charges on "W"				1.45
	TOTAL				146.57 X
	Add GST on "X" (multiplying factor 0.1405)				20.59
	TOTAL				167.16 Y
	Add 15% CPOH on "Y"				25.07
	TOTAL				192.24 Z
	Add Cess @ 1% on "Z"				1.92
	Cost of 1 no.				194.16
	Say				194.15
	FOR DPA 30% LESS				**135.905**

18.54 Providing and fixing PTMT, push cock of approved quality and colour.

18.54.1 15 mm nominal bore, 98 mm long, weighing not less than 75 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
7407	PTMT push cock 15 mm dia.	each	1.00	55.00	55.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				72.09 W
	Add 1 % Water charges on "W"				0.72
	TOTAL				72.81 X
	Add GST on "X" (multiplying factor 0.1405)				10.23
	TOTAL				83.04 Y
	Add 15% CPOH on "Y"				12.46
	TOTAL				95.49 Z
	Add Cess @ 1% on "Z"				0.95
	Cost of 1 no.				96.45
	Say				96.45
	FOR DPA 30% LESS				**67.515**

18.54.2 15 mm nominal bore, 80 mm long, weighing not less than 46 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
7408	PTMT push cock 12 mm dia. 20 mm BSP	each	1.00	45.00	45.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				62.09 W
	Add 1 % Water charges on "W"				0.62
	TOTAL				62.71 X
	Add GST on "X" (multiplying factor 0.1405)				8.81
	TOTAL				71.52 Y
	Add 15% CPOH on "Y"				10.73
	TOTAL				82.25 Z
	Add Cess @ 1% on "Z"				0.82
	Cost of 1 no.				83.07
	Say				83.05
	FOR DPA 30% LESS				**58.135**

18.55 Providing and fixing PTMT grating of approved quality and colour.

18.55.1 Circular type

18.55.1.1 100 mm nominal dia

Code	Description	Unit	Quantity	Rate	Amount
7409	Details of cost for 1 no. MATERIAL PTMT grating 100 mm dia.	each	1.00	16.00	16.00
9988	Carriage of materials and fixing charges	L.S.	4.16	2.12	8.82
	TOTAL				24.82 W
	Add 1 % Water charges on "W"				0.25
	TOTAL				25.07 X
	Add GST on "X" (multiplying factor 0.1405)				3.52
	TOTAL				28.59 Y
	Add 15% CPOH on "Y"				4.29
	TOTAL				32.88 Z
	Add Cess @ 1% on "Z"				0.33
	Cost of 1 no.				33.21
	Say				33.20
	FOR DPA 30% LESS				**23.24**

18.55.1.2 125 mm nominal dia with 25 mm waste hole

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
7411	125 mm grating withwaste hole	each	1.00	25.00	25.00
9988	Carriage of materials and fixing charges	L.S.	4.16	2.12	8.82
	TOTAL				33.82 W

	Add 1 % Water charges on "W"				0.34
	TOTAL				34.16 X
	Add GST on "X" (multiplying factor 0.1405)				4.80
	TOTAL				38.96 Y
	Add 15% CPOH on "Y"				5.84
	TOTAL				44.80 Z
	Add Cess @ 1% on "Z"				0.45
	Cost of 1 no.				45.25
	Say				45.25
	FOR DPA 30% LESS				**31.675**

18.55.2 Rectangular type with openable circular lid

18.55.2.1 150 mm nominal size square 100 mm diameter of the inner hinged round grating

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
7412	Rectangular type with openable circular lid 150 mm size 18 mm high with 100 mm dia. (110 gm)	each	1.00	118.00	118.00
9988	Carriage of materials and fixing charges	L.S.	4.16	2.12	8.82
	TOTAL				126.82 W
	Add 1 % Water charges on "W"				1.27
	TOTAL				128.09 X
	Add GST on "X" (multiplying factor 0.1405)				18.00
	TOTAL				146.08 Y
	Add 15% CPOH on "Y"				21.91
	TOTAL				168.00 Z
	Add Cess @ 1% on "Z"				1.68
	Cost of 1 no.				169.68
	Say				169.70
	FOR DPA 30% LESS				**118.79**

18.56 Providing and fixing C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc if required will be paid separately) :

18.56.1 50 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 no. double acting air valves				
	MATERIAL				
7415	Double acting air valve 50 mm	each	10.00	3715.00	37150.00
9977	Carriage of air valves	L.S.	26.00	2.12	55.12
9999	Labour for laying double acting air valve	L.S.	39.00	2.12	82.68
18.30.1	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item no 18.30.1 of SH : Water Supply)	each	10.00	182.85	1828.50 A
	TOTAL				39116.30 W
	Add 1 % Water charges on "W-A"				372.88
	TOTAL				39489.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				5291.33
	TOTAL				44780.50 Y
	Add 15% CPOH on "Y-A"				6442.80
	TOTAL				51223.30 Z
	Add Cess @ 1% on "Z-A"				493.95
	Cost of 10 air valves				51717.25
	Cost of 1 air valve				5171.73
	Say				5171.75
	FOR DPA 30% LESS				**3620.225**

18.56.2 80 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 no. double acting air valves				
	MATERIAL				

7416	Double acting air valve 80 mm	each	10.00	4525.00	45250.00
9977	Carriage of air valves	L.S.	26.00	2.12	55.12
9999	Labour for laying double acting air valve	L.S.	39.00	2.12	82.68
18.30.1	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item no 18.30.1 of SH : Water Supply)	each	10.00	182.85	1828.50 A
	TOTAL				47216.30 W
	Add 1 % Water charges on "W-A"				453.88
	TOTAL				47670.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				6440.76
	TOTAL				54110.93 Y
	Add 15% CPOH on "Y-A"				7842.37
	TOTAL				61953.30 Z
	Add Cess @ 1% on "Z-A"				601.25
	Cost of 10 air valves				62554.55
	Cost of 1 air valve				6255.45
	Say				6255.45
	FOR DPA 30% LESS				**4378.815**

18.56.3 100 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 no. double acting air valves				
	MATERIAL				
7417	Double acting air valve 100 mm	each	10.00	5910.00	59100.00
9977	Carriage of air valves	L.S.	26.00	2.12	55.12
9999	Labour for laying double acting air valve	L.S.	52.00	2.12	110.24
18.30.2	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item No.18.30.2 Of SH:Water Supply)	each	10.00	284.75	2847.50 A
	TOTAL				62112.86 W
	Add 1 % Water charges on "W-A"				592.65
	TOTAL				62705.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				8410.05
	TOTAL				71115.56 Y
	Add 15% CPOH on "Y-A"				10240.21
	TOTAL				81355.77 Z
	Add Cess @ 1% on "Z-A"				785.08
	Cost of 10 air valves				82140.86
	Cost of 1 air valve				8214.09
	Say				8214.10
	FOR DPA 30% LESS				**5749.87**

18.57 Providing and fixing enclosed type water meter (bulk type) conforming to IS : 2373 and tested by Municipal Board complete with bolts, nuts, rubber insertions etc. (The tail pieces if required will be paid separately) :

18.57.1 80 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. water meter				
	MATERIAL				
7418	Water meter (including testing charges) 80 mm	each	1.00	2030.00	2030.00
9977	Carriage of water meter	L.S.	26.00	2.12	55.12
9999	Labour for laying water meter	L.S.	39.00	2.12	82.68
18.30.1	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item no 18.30.1 of SH : Water Supply)	each	2.00	182.85	365.70 A
	TOTAL				2533.50 W
	Add 1 % Water charges on "W-A"				21.68

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				2555.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				307.62
	TOTAL				2862.80 Y
	Add 15% CPOH on "Y-A"				374.56
	TOTAL				3237.36 Z
	Add Cess @ 1% on "Z-A"				28.72
	Cost of 1 water meter				3266.08
	Say				2286.27
	Details of cost for one no. water meter				
	MATERIAL				
7419	Water meter (including testing charges) 100 mm	each	1.00	3143.00	3143.00
9977	Carriage of water meter	L.S.	26.00	2.12	55.12
9999	Labour for laying water meter	L.S.	52.00	2.12	110.24
18.30.2	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item No.18.30.2)	each	2.00	284.75	569.50 A
	TOTAL				3877.86 W
	Add 1 % Water charges on "W-A"				33.08
	TOTAL				3910.94 X
	Add GST on "X-A" (multiplying factor 0.1405)				469.47
	TOTAL				4380.42 Y
	Add 15% CPOH on "Y-A"				571.64
	TOTAL				4952.05 Z
	Add Cess @ 1% on "Z-A"				43.83
	Cost of 1 water meter				4995.88
	Say				4995.90
	FOR DPA 30% LESS				**3497.13**

18.57.3 150 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. water meter				
	MATERIAL				
7420	Water meter (including testing charges) 150 mm	each	1.00	4765.00	4765.00
9977	Carriage of water meter	L.S.	39.00	2.12	82.68
9999	Labour for laying water meter	L.S.	65.00	2.12	137.80
18.30.4	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item No.18.30.4 Of SH: Water Supply)	each	2.00	343.55	687.10 A
	TOTAL				5672.58 W
	Add 1 % Water charges on "W-A"				49.85
	TOTAL				5722.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				707.46
	TOTAL				6429.90 Y
	Add 15% CPOH on "Y-A"				861.42
	TOTAL				7291.32 Z
	Add Cess @ 1% on "Z-A"				66.04
	Cost of 1 water meter				7357.36
	Say				7357.35
	FOR DPA 30% LESS				**5150.145**

18.57.4 200 mm dia nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. water meter				
	MATERIAL				
7421	Water meter (including testing charges) 200 mm	each	1.00	5145.00	5145.00
9977	Carriage of water meter	L.S.	52.00	2.12	110.24

9999	Labour for laying water meter	L.S.	104.00	2.12	220.48
18.30.5	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item no 20.47.5 of SH : Water Supply)	each	2.00	377.00	754.00 A
	TOTAL				6229.72 W
	Add 1 % Water charges on "W-A"				54.76
	TOTAL				6284.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				777.03
	TOTAL				7061.51 Y
	Add 15% CPOH on "Y-A"				946.13
	TOTAL				8007.64 Z
	Add Cess @ 1% on "Z-A"				72.54
	Cost of 1 water meter				8080.17
	Say				8080.15
	FOR DPA 30% LESS				**5656.105**

18.58 Providing and fixing C.I. dirt box strainer for bulk type water meter with nuts, bolts, rubber insertions etc. complete conforming to IS : 2373 :
18.58.1 80 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for on no. dirt box strainer				
	MATERIAL				
7422	Dirt box srainer 80 mm	each	1.00	2680.00	2680.00
9977	Carriage of dirt box strainer	L.S.	26.00	2.12	55.12
9999	Labour for laying dirt box strainer	L.S.	39.00	2.12	82.68
18.30.1	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item no 18.30.1 of SH : Water Supply)	each	2.00	182.85	365.70 A
	TOTAL				3183.50 W
	Add 1 % Water charges on "W-A"				28.18
	TOTAL				3211.68 X
	Add GST on "X-A" (multiplying factor 0.1405)				399.86
	TOTAL				3611.54 Y
	Add 15% CPOH on "Y-A"				486.88
	TOTAL				4098.41 Z
	Add Cess @ 1% on "Z-A"				37.33
	Cost of 1 dirt box stainer				4135.74
	Say				4135.75
	Details of cost for 1 no. dirt box stainer				
	MATERIAL				
7423	Dirt box srainer 100 mm	each	1.00	4370.00	4370.00
9977	Carriage of dirt box strainer	L.S.	26.00	2.12	55.12
9999	Labour for laying dirt box strainer	L.S.	52.00	2.12	110.24
18.30.2	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item No.18.30.2 Of SH:Water Supply)	each	2.00	284.75	569.50 A
	TOTAL				5104.86 W
	Add 1 % Water charges on "W-A"				45.35
	TOTAL				5150.21 X
	Add GST on "X-A" (multiplying factor 0.1405)				643.59
	TOTAL				5793.80 Y
	Add 15% CPOH on "Y-A"				783.65
	TOTAL				6577.45 Z
	Add Cess @ 1% on "Z-A"				60.08
	Cost of 1 dirt box stainer				6637.53
	Say				6637.55
	FOR DPA 30% LESS				**4646.285**

18.58.3	150 mm dia				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no. dirt box stainer				
	MATERIAL				
7424	Dirt box srainer 150 mm	each	1.00	5540.00	5540.00
9977	Carriage of dirt box strainer	L.S.	39.00	2.12	82.68
9999	Labour for laying dirt box strainer	L.S.	65.00	2.12	137.80
18.30.4	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item No.18.30.4 Of SH:Water Supply)	each	2.00	343.55	687.10 A
	TOTAL				6447.58 W
	Add 1 % Water charges on "W-A"				57.60
	TOTAL				6505.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				817.44
	TOTAL				7322.63 Y
	Add 15% CPOH on "Y-A"				995.33
	TOTAL				8317.95 Z
	Add Cess @ 1% on "Z-A"				76.31
	Cost for 1 dirt box stainer				8394.26
	Say				8394.25
	FOR DPA 30% LESS				**5875.975**

18.58.4	200 mm dia				
	Details of cost for one no. dirt box stainer				
	MATERIAL				
7425	Dirt box srainer 200 mm	each	1.00	7860.00	7860.00
9977	Carriage of dirt box strainer	L.S.	52.00	2.12	110.24
9999	Labour for laying dirt box strainer	L.S.	104.00	2.12	220.48
18.30.5	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item no 20.47.5 of SH : Water Supply)	each	2.00	377.00	754.00 A
	TOTAL				8944.72 W
	Add 1 % Water charges on "W-A"				81.91
	TOTAL				9026.63 X
	Add GST on "X-A" (multiplying factor 0.1405)				1162.30
	TOTAL				10188.93 Y
	Add 15% CPOH on "Y-A"				1415.24
	TOTAL				11604.17 Z
	Add Cess @ 1% on "Z-A"				108.50
	Cost for 10 dirt box stainer				11712.67
	Say				11712.65
	FOR DPA 30% LESS				**8198.855**

18.57 Providing and fixing PTMT Ball cock of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./ H.P.H.D. plastic ball.

18.57.1 15 mm nominal bore, 105 mm long, weighing not less than 138 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7495	PTMT Ball Cock 15mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	75.00	75.00
9988	Carriage of materials and fixing charges	L.S.	21.58	2.12	45.75
	TOTAL				120.75 W
	Add 1 % Water charges on "W"				1.21
	TOTAL				121.96 X
	Add GST on "X" (multiplying factor 0.1405)				17.13
	TOTAL				139.09 Y

	Add 15% CPOH on "Y"				20.86
	TOTAL				159.96 Z
	Add Cess @ 1% on "Z"				1.60
	Cost of one no.				161.56
	Say				161.55
	FOR DPA 30% LESS				**113.085**
18.57.2	**20 mm nominal bore, 120mm long, weighing not less than 198 gms**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for one no.				
	MATERIAL				
7496	PTMT Ball Cock 20mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	110.00	110.00
9988	Carriage of materials and fixing charges	L.S.	26.91	2.12	57.05
	TOTAL				167.05 W
	Add 1 % Water charges on "W"				1.67
	TOTAL				168.72 X
	Add GST on "X" (multiplying factor 0.1405)				23.71
	TOTAL				192.42 Y
	Add 15% CPOH on "Y"				28.86
	TOTAL				221.29 Z
	Add Cess @ 1% on "Z"				2.21
	Cost of one no.				223.50
	Say				223.50
	FOR DPA 30% LESS				**156.45**
18.57.3	**25 mm nominal bore, 152mm long, weighing not less than 440 gms**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for one no.				
	MATERIAL				
7497	PTMT Ball Cock 25mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	275.00	275.00
9988	Carriage of materials and fixing charges	L.S.	32.24	2.12	68.35
	TOTAL				343.35 W
	Add 1 % Water charges on "W"				3.43
	TOTAL				346.78 X
	Add GST on "X" (multiplying factor 0.1405)				48.72
	TOTAL				395.51 Y
	Add 15% CPOH on "Y"				59.33
	TOTAL				454.83 Z
	Add Cess @ 1% on "Z"				4.55
	Cost of one no.				459.38
	Say				459.40
	FOR DPA 30% LESS				**321.58**
18.57.4	**40 mm nominal bore, 206mm long, weighing not less than 690 gms**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
7498	Details of cost for one no. MATERIAL PTMT Ball Cock 40mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	420.00	420.00
9988	Carriage of materials and fixing charges	L.S.	32.24	2.12	68.35
	TOTAL				488.35 W
	Add 1 % Water charges on "W"				4.88
	TOTAL				493.23 X
	Add GST on "X" (multiplying factor 0.1405)				69.30
	TOTAL				562.53 Y
	Add 15% CPOH on "Y"				84.38
	TOTAL				646.91 Z
	Add Cess @ 1% on "Z"				6.47
	Cost of one no.				653.38
	Say				653.40
	FOR DPA 30% LESS				**457.38**
18.57.5	**50 mm nominal bore, 242mm long, weighing not less than 1240 gms**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**

	Details of cost for one no.				
	MATERIAL				
7499	PTMT Ball Cock 50mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	820.00	820.00
9988	Carriage of materials and fixing charges	L.S.	32.24	2.12	68.35
	TOTAL				888.35 W
	Add 1 % Water charges on "W"				8.88
	TOTAL				897.23 X
	Add GST on "X" (multiplying factor 0.1405)				126.06
	TOTAL				1023.29 Y
	Add 15% CPOH on "Y"				153.49
	TOTAL				1176.79 Z
	Add Cess @ 1% on "Z"				11.77
	Cost of one no.				1188.56
	Say				1188.55
	FOR DPA 30% LESS				**831.985**

18.58 Providing and fixing PTMT angle stop cock 15 mm nominal bore, weighing not less than 85 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7500	PTMT Angle Stop cock with Flenge 15mm	each	1.00	85.00	85.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				102.09 W
	Add 1 % Water charges on "W"				1.02
	TOTAL				103.11 X
	Add GST on "X" (multiplying factor 0.1405)				14.49
	TOTAL				117.59 Y
	Add 15% CPOH on "Y"				17.64
	TOTAL				135.23 Z
	Add Cess @ 1% on "Z"				1.35
	Cost of one no.				136.59
	Say				136.60
	FOR DPA 30% LESS				**95.62**

18.59 Providing and fixing PTMT swivelling shower, 15 mm nominal bore, weighing not less than 40 gms

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7501	PTMT Swiveling shower 15mm	each	1.00	65.00	65.00
9988	Carriage of materials and fixing charges	L.S.	6.76	2.12	14.33
	TOTAL				79.33 W
	Add 1 % Water charges on "W"				0.79
	TOTAL				80.12 X
	Add GST on "X" (multiplying factor 0.1405)				11.26
	TOTAL				91.38 Y
	Add 15% CPOH on "Y"				13.71
	TOTAL				105.09 Z
	Add Cess @ 1% on "Z"				1.05
	Cost of one no.				106.14
	Say				106.15
	FOR DPA 30% LESS				**74.305**

18.60 Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no				
	MATERIAL				
7509	PTMT Soap Dish/Holder 138x102x75mm	each	1.00	58.00	58.00
9988	Carriage of materials and fixing charges	L.S.	6.76	2.12	14.33

	TOTAL				72.33 W
	Add 1 % Water charges on "W"				0.72
	TOTAL				73.05 X
	Add GST on "X" (multiplying factor 0.1405)				10.26
	TOTAL				83.32 Y
	Add 15% CPOH on "Y"				12.50
	TOTAL				95.82 Z
	Add Cess @ 1% on "Z"				0.96
	Cost of one no				96.77
	Say				96.75
	FOR DPA 30% LESS				**67.725**

18.61 Providing and laying S&S C.I. Standard specials such as tees, bends, collars tapers and caps etc, suitable for flanged jointing as per IS : 1538 :

18.61.1 Up to 300 mm dia

Code	Description	Unit	Quantity	Rate	Amount
7708	Details of cost for 1 quintal MATERIAL S&S Centrifugally (Spun) C.I. Pipe Specials as per IS 1538 suitable for lead jointing upto 300mm dia	quintal	1.00	5190.00	5190.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	Labour for laying				
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				5750.57 W
	Add 1 % Water charges on "W-A"				52.05
	TOTAL				5802.62 X
	Add GST on "X-A" (multiplying factor 0.1405)				738.55
	TOTAL				6541.17 Y
	Add 15% CPOH on "Y-A"				899.28
	TOTAL				7440.45 Z
	Add Cess @ 1% on "Z-A"				68.94
	Cost of 1 quintal				7509.39
	Say				7509.40
	FOR DPA 30% LESS				**5256.58**

18.61.2 Above 300 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal				
	MATERIAL				
7709	S&S Centrifugally (Spun) C.I. Pipe Specials as per IS 1538 suitable for lead jointing over 300mm dia	quintal	1.00	6200.00	6200.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	Labour for laying				
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				6760.57 W
	Add 1 % Water charges on "W-A"				62.15
	TOTAL				6822.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				881.88
	TOTAL				7704.60 Y
	Add 15% CPOH on "Y-A"				1073.79
	TOTAL				8778.39 Z
	Add Cess @ 1% on "Z-A"				82.32
	Cost of 1 quintal				8860.71
	Say				8860.70
	FOR DPA 30% LESS				**6202.49**

18.62 Providing and laying S&S C.I. Standard specials suitable for mechanical jointing as per IS : 13382 :

18.62.1 Up to 300 mm dia

Code	Description	Unit	Quantity	Rate	Amount

7710	Details of cost for 1 quintal MATERIAL S&S Centrifugally (Spun) C.I. Pipe specials suitable for mechanical joint as per I.S. 13382 upto 300mm dia	quintal	1.00	8571.00	8571.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	Labour for laying				
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				9131.57 W
	Add 1 % Water charges on "W-A"				85.86
	TOTAL				9217.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				1218.34
	TOTAL				10435.76 Y
	Add 15% CPOH on "Y-A"				1483.46
	TOTAL				11919.23 Z
	Add Cess @ 1% on "Z-A"				113.73
	Cost of 1 quintal				12032.96
	Say				12032.95
	FOR DPA 30% LESS				**8423.065**
18.62.2	**Above 300 mm dia**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 quintal				
	MATERIAL				
7711	S&S Centrifugally (Spun) C.I. Pipe Specials suitabe for mechanical joint as per IS 13382 over 300mm dia	quintal	1.00	9048.00	9048.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	Labour for Laying				
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				9608.57 W
	Add 1 % Water charges on "W-A"				90.63
	TOTAL				9699.20 X
	Add GST on "X-A" (multiplying factor 0.1405)				1286.02
	TOTAL				10985.22 Y
	Add 15% CPOH on "Y-A"				1565.88
	TOTAL				12551.11 Z
	Add Cess @ 1% on "Z-A"				120.05
	Cost of 1 quintal				12671.16
	Say				12671.15
	FOR DPA 30% LESS				**8869.805**
18.63	**Providing and laying D.I. specials of class K-12 suitable for push-on jointing as per IS : 9523 :**				
18.63.1	**Up to 600 mm dia**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
7682	Details of cost for 1 quintal MATERIAL Ductile Iron K - 12 specials suitable for push on jointing upto 600 mm dia	quintal	1.00	12400.00	12400.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	Labour for laying				
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				12960.57 W
	Add 1 % Water charges on "W-A"				124.15
	TOTAL				13084.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				1761.69
	TOTAL				14846.41 Y
	Add 15% CPOH on "Y-A"				2145.06
	TOTAL				16991.47 Z
	Add Cess @ 1% on "Z-A"				164.45
	Cost of 1 quintal				17155.92
	Say				17155.90
	FOR DPA 30% LESS				**12009.13**

18.63.2 Above 600 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal				
	MATERIAL				
7683	Ductile Iron K - 12 specials suitable for push on jointing over 600mm dia	quintal	1.00	17200.00	17200.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	Labour for laying				
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				17760.57 W
	Add 1 % Water charges on "W-A"				172.15
	TOTAL				17932.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				2442.83
	TOTAL				20375.55 Y
	Add 15% CPOH on "Y-A"				2974.43
	TOTAL				23349.98 Z
	Add Cess @ 1% on "Z-A"				228.04
	Cost of 1 quintal				23578.02
	Say				23578.00
	FOR DPA 30% LESS				**16504.6**

18.64 Providing and laying D.I. Specials of Class K - 12 suitable for mechanical jointing as per IS : 9523 :

18.64.1 Up to 600 mm dia

Code	Description	Unit	Quantity	Rate	Amount
7684	Details of cost for 1 quintal MATERIAL Ductile Iron specials suitable for mechanical jointing as per I.S. 9523 - upto 600mm dia	quintal	1.00	13050.00	13050.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	Labour for laying				
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				13610.57 W
	Add 1 % Water charges on "W-A"				130.65
	TOTAL				13741.22 X
	Add GST on "X-A" (multiplying factor 0.1405)				1853.93
	TOTAL				15595.15 Y
	Add 15% CPOH on "Y-A"				2257.37
	TOTAL				17852.52 Z
	Add Cess @ 1% on "Z-A"				173.07
	Cost of 1 quintal				18025.58
	Say				18025.60
	FOR DPA 30% LESS				**12617.92**

18.64.2 Above 600 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 quintal				
	MATERIAL				
7685	Ductile Iron Specials suitable for mechancial jointing as per I.S. 9523 over 600mm dia	quintal	1.00	18750.00	18750.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	Labour for laying				
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				19310.57 W
	Add 1 % Water charges on "W-A"				187.65
	TOTAL				19498.22 X
	Add GST on "X-A" (multiplying factor 0.1405)				2662.79
	TOTAL				22161.00 Y
	Add 15% CPOH on "Y-A"				3242.25
	TOTAL				25403.25 Z
	Add Cess @ 1% on "Z-A"				248.57

	Cost of 1 quintal				25651.83
	Say				25651.85
	FOR DPA 30% LESS				**17956.295**

18.65 Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket :

18.65.1 100 mm dia pipes

Code	Description	Unit	Quantity	Rate	Amount
7666 0116	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 100mm dia Labour Fitter (grade 1)	each day	50.00 1.00	29.00 784.00	1450.00 784.00
0117	Assistant Fitter or 2nd class Fitter	day	1.00	714.00	714.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				3593.00 W
	Add 1 % Water charges on "W"				35.93
	TOTAL				3628.93 X
	Add GST on "X" (multiplying factor 0.1405)				509.86
	TOTAL				4138.79 Y
	Add 15% CPOH on "Y"				620.82
	TOTAL				4759.61 Z
	Add Cess @ 1% on "Z"				47.60
	Cost of 50 joints				4807.21
	Cost of 1 joint				96.14
	Say				96.15
	FOR DPA 30% LESS				**67.305**

18.65.2 150 mm dia pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 50 Joints				
	MATERIAL				
7668	Ruber Gaskets Conforming to I.S 5382				
	of S.B.R quality 150mm dia	each	50.00	33.00	1650.00
	Labour				
0116	Fitter (grade 1)	day	1.50	784.00	1176.00
0117	Assistant Fitter or 2nd class Fitter	day	1.50	714.00	1071.00
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				5832.00 W
	Add 1 % Water charges on "W"				58.32
	TOTAL				5890.32 X
	Add GST on "X" (multiplying				
	factor 0.1405)				827.59
	TOTAL				6717.91 Y
	Add 15% CPOH on "Y"				1007.69
	TOTAL				7725.60 Z
	Add Cess @ 1% on "Z"				77.26
	Cost of 50 joints				7802.85
	Cost of 1 joint				156.06
	Say				156.05
	FOR DPA 30% LESS				**109.235**

18.65.3 200 mm dia pipes

Code	Description	Unit	Quantity	Rate	Amount
7669 0116 0117	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 200mm dia LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	each day day	50.00 2.00 2.00	60.00 784.00 714.00	3000.00 1568.00 1428.00
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				8576.00 W
	Add 1 % Water charges on "W"				85.76
	TOTAL				8661.76 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1216.98
	TOTAL				9878.74 Y
	Add 15% CPOH on "Y"				1481.81
	TOTAL				11360.55 Z

	Add Cess @ 1% on "Z"				113.61
	Cost of 50 joints				11474.15
	Cost of 1 joint				229.48
	Say				229.50
	FOR DPA 30% LESS				**160.65**

18.65.4 250 mm dia pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 50 Joints				
	MATERIAL				
7670	Ruber Gaskets Conforming to I.S 5382				
	of S.B.R quality 250mm dia	each	50.00	70.00	3500.00
	LABOUR				
0116	Fitter (grade 1)	day	2.50	784.00	1960.00
0117	Assistant Fitter or 2nd class Fitter	day	2.50	714.00	1785.00
0114	Beldar	day	5.00	645.00	3225.00
	TOTAL				10470.00 W
	Add 1 % Water charges on "W"				104.70
	TOTAL				10574.70 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1485.75
	TOTAL				12060.45 Y
	Add 15% CPOH on "Y"				1809.07
	TOTAL				13869.51 Z
	Add Cess @ 1% on "Z"				138.70
	Cost of 50 joints				14008.21
	Cost of 1 joint				280.16
	Say				280.15
	FOR DPA 30% LESS				**196.105**

18.65.5 300 mm dia pipes

Code	Description	Unit	Quantity	Rate	Amount
7671 0116 0117	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 300mm dia LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	each day day	50.00 3.00 3.00	100.00 784.00 714.00	5000.00 2352.00 2142.00
0114	Beldar	day	6.00	645.00	3870.00
	TOTAL				13364.00 W
	Add 1 % Water charges on "W"				133.64
	TOTAL				13497.64 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1896.42
	TOTAL				15394.06 Y
	Add 15% CPOH on "Y"				2309.11
	TOTAL				17703.17 Z
	Add Cess @ 1% on "Z"				177.03
	Cost of 50 joints				17880.20
	Cost of 1 joint				357.60
	Say				357.60
	FOR DPA 30% LESS				**250.32**

18.65.6 350 mm dia pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 50 Joints				
	MATERIAL				
7672	Ruber Gaskets Conforming to I.S 5382				
	of S.B.R quality 350mm dia	each	50.00	116.00	5800.00
	LABOUR				
0116	Fitter (grade 1)	day	3.50	784.00	2744.00
0117	Assistant Fitter or 2nd class Fitter	day	3.50	714.00	2499.00
0114	Beldar	day	7.00	645.00	4515.00
	TOTAL				15558.00 W
	Add 1 % Water charges on "W"				155.58
	TOTAL				15713.58 X
	Add GST on "X" (multiplying				
	factor 0.1405)				2207.76
	TOTAL				17921.34 Y
	Add 15% CPOH on "Y"				2688.20

	TOTAL				20609.54 Z
	Add Cess @ 1% on "Z"				206.10
	Cost of 50 joints				20815.63
	Cost of 1 joint				416.31
	Say				416.30
	FOR DPA 30% LESS				**291.41**

18.65.7 400 mm dia pipes

Code	Description	Unit	Quantity	Rate	Amount
7673 0116 0117	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 400mm dia LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	each day day	50.00 4.00 4.00	210.00 784.00 714.00	10500.00 3136.00 2856.00
0114	Beldar	day	8.00	645.00	5160.00
	TOTAL				21652.00 W
	Add 1 % Water charges on "W"				216.52
	TOTAL				21868.52 X
	Add GST on "X" (multiplying factor 0.1405)				3072.53
	TOTAL				24941.05 Y
	Add 15% CPOH on "Y"				3741.16
	TOTAL				28682.20 Z
	Add Cess @ 1% on "Z"				286.82
	Cost of 50 joints				28969.03
	Cost of 1 joint				579.38
	Say				579.40
	FOR DPA 30% LESS				**405.58**

18.65.8 450 mm dia pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 50 Joints				
	MATERIAL				
7674	Ruber Gaskets Conforming to I.S 5382				
	of S.B.R quality 450mm dia	each	50.00	250.00	12500.00
	LABOUR				
0116	Fitter (grade 1)	day	4.50	784.00	3528.00
0117	Assistant Fitter or 2nd class Fitter	day	4.50	714.00	3213.00
0114	Beldar	day	9.00	645.00	5805.00
	TOTAL				25046.00 W
	Add 1 % Water charges on "W"				250.46
	TOTAL				25296.46 X
	Add GST on "X" (multiplying factor 0.1405)				3554.15
	TOTAL				28850.61 Y
	Add 15% CPOH on "Y"				4327.59
	TOTAL				33178.20 Z
	Add Cess @ 1% on "Z"				331.78
	Cost of 50 joints				33509.99
	Cost of 1 joint				670.20
	Say				670.20
	FOR DPA 30% LESS				**469.14**

18.65.9 500 mm dia pipes

Code	Description	Unit	Quantity	Rate	Amount
7675 0116 0117	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 500mm dia LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	each day day	50.00 4.75 4.75	270.00 784.00 714.00	13500.00 3724.00 3391.50
0114	Beldar	day	9.50	645.00	6127.50
	TOTAL				26743.00 W
	Add 1 % Water charges on "W"				267.43
	TOTAL				27010.43 X
	Add GST on "X" (multiplying factor 0.1405)				3794.97
	TOTAL				30805.40 Y
	Add 15% CPOH on "Y"				4620.81

	TOTAL				35426.20 Z
	Add Cess @ 1% on "Z"				354.26
	Cost of 50 joints				35780.47
	Cost of 1 joint				715.61
	Say				715.60
	FOR DPA 30% LESS				**500.92**
18.65.10	**600 mm dia pipes**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 50 Joints				
	MATERIAL				
7676	Ruber Gaskets Conforming to I.S 5382				
	of S.B.R quality 600mm dia	each	50.00	356.00	17800.00
	LABOUR				
0116	Fitter (grade 1)	day	6.50	784.00	5096.00
0117	Assistant Fitter or 2nd class Fitter	day	6.50	714.00	4641.00
0114	Beldar	day	13.00	645.00	8385.00
	TOTAL				35922.00 W
	Add 1 % Water charges on "W"				359.22
	TOTAL				36281.22 X
	Add GST on "X" (multiplying				
	factor 0.1405)				5097.51
	TOTAL				41378.73 Y
	Add 15% CPOH on "Y"				6206.81
	TOTAL				47585.54 Z
	Add Cess @ 1% on "Z"				475.86
	Cost of 50 joints				48061.40
	Cost of 1 joint				961.23
	Say				961.25
	FOR DPA 30% LESS				**672.875**
18.65.12	**700 mm dia pipes**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
7677 0116 0117	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 700mm dia LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	each day day	50.00 7.70 7.70	510.00 784.00 714.00	25500.00 6036.80 5497.80
0114	Beldar	day	15.40	645.00	9933.00
	TOTAL				46967.60 W
	Add 1 % Water charges on "W"				469.68
	TOTAL				47437.28 X
	Add GST on "X" (multiplying				
	factor 0.1405)				6664.94
	TOTAL				54102.21 Y
	Add 15% CPOH on "Y"				8115.33
	TOTAL				62217.55 Z
	Add Cess @ 1% on "Z"				622.18
	Cost of 50 joints				62839.72
	Cost of 1 joint				1256.79
	Say				1256.80
	FOR DPA 30% LESS				**879.76**
18.65.13	**750 mm dia pipes**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 50 Joints				
	MATERIAL				
7678	Ruber Gaskets Conforming to I.S 5382				
	of S.B.R quality 750mm dia	each	50.00	600.00	30000.00
	LABOUR				
0116	Fitter (grade 1)	day	7.70	784.00	6036.80
0117	Assistant Fitter or 2nd class Fitter	day	7.70	714.00	5497.80
0114	Beldar	day	15.40	645.00	9933.00
	TOTAL				51467.60 W
	Add 1 % Water charges on "W"				514.68
	TOTAL				51982.28 X
	Add GST on "X" (multiplying				
	factor 0.1405)				7303.51

	TOTAL				59285.79 Y
	Add 15% CPOH on "Y"				8892.87
	TOTAL				68178.65 Z
	Add Cess @ 1% on "Z"				681.79
	Cost of 50 joints				68860.44
	Cost of 1 joint				1377.21
	Say				1377.20
	FOR DPA 30% LESS				**964.04**

18.65.13 800 mm dia pipes

Code	Description	Unit	Quantity	Rate	Amount
7679 0116 0117	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 800mm dia LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	each day day	50.00 8.50 8.50	705.00 784.00 714.00	35250.00 6664.00 6069.00
0114	Beldar	day	17.00	645.00	10965.00
	TOTAL				58948.00 W
	Add 1 % Water charges on "W"				589.48
	TOTAL				59537.48 X
	Add GST on "X" (multiplying factor 0.1405)				8365.02
	TOTAL				67902.50 Y
	Add 15% CPOH on "Y"				10185.37
	TOTAL				78087.87 Z
	Add Cess @ 1% on "Z"				780.88
	Cost of 50 joints				78868.75
	Cost of 1 joint				1577.37
	Say				1577.35
	FOR DPA 30% LESS				**1104.145**

18.65.14 900 mm dia pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 50 Joints				
	MATERIAL				
7680	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 900mm dia	each	50.00	910.00	45500.00
	LABOUR				
0116	Fitter (grade 1)	day	10.00	784.00	7840.00
0117	Assistant Fitter or 2nd class Fitter	day	10.00	714.00	7140.00
0114	Beldar	day	20.00	645.00	12900.00
	TOTAL				73380.00 W
	Add 1 % Water charges on "W"				733.80
	TOTAL				74113.80 X
	Add GST on "X" (multiplying factor 0.1405)				10412.99
	TOTAL				84526.79 Y
	Add 15% CPOH on "Y"				12679.02
	TOTAL				97205.81 Z
	Add Cess @ 1% on "Z"				972.06
	Cost of 50 joints				98177.87
	Cost of 1 joint				1963.56
	Say				1963.55
	FOR DPA 30% LESS				**1374.485**

18.65.15 1000 mm dia pipes

Code	Description	Unit	Quantity	Rate	Amount
7681 0116 0117	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 1000mm dia LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	each day day	50.00 11.00 11.00	1080.00 784.00 714.00	54000.00 8624.00 7854.00
0114	Beldar	day	22.00	645.00	14190.00
	TOTAL				84668.00 W
	Add 1 % Water charges on "W"				846.68
	TOTAL				85514.68 X
	Add GST on "X" (multiplying factor 0.1405)				12014.81

	TOTAL				97529.49 Y
	Add 15% CPOH on "Y"				14629.42
	TOTAL				112158.92 Z
	Add Cess @ 1% on "Z"				1121.59
	Cost of 50 joints				113280.51
	Cost of 1 joint				2265.61
	Say				2265.60
	FOR DPA 30% LESS				**1585.92**

18.66 Providing and laying Double Flanged (screwed / welded) Centrifugally (Spun) Cast Iron, Class B (IS : 1536) :

18.66.1 100 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	100 mm dia. cast iron pipes double flanged = 27.00 Kg				
	Weight of 5 m pipes 27.00x5 = 135.00 Kg				
7712	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 100mm dia	metre	5.00	1310.00	6550.00
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.05	358.32	17.92
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	1.35	298.50	402.98 A
	TOTAL				6970.89 W
	Add 1 % Water charges on "W-A"				65.68
	TOTAL				7036.57 X
	Add GST on "X-A" (multiplying factor 0.1405)				932.02
	TOTAL				7968.59 Y
	Add 15% CPOH on "Y-A"				1134.84
	TOTAL				9103.43 Z
	Add Cess @ 1% on "Z-A"				87.00
	Cost of 5 metre				9190.44
	Cost of metre				1838.09
	Say				1838.10
	FOR DPA 30% LESS				**1286.67**

18.66.2 150 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	150 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 44.10 Kg				
	Weight of 5 m pipes = 44.10x5 = 220.50 Kg				
7713	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 150mm dia	metre	5.00	2048.00	10240.00
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	0.05	597.20	29.86
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	2.21	298.50	659.69 A
	TOTAL				10929.55 W
	Add 1 % Water charges on "W-A"				102.70
	TOTAL				11032.24 X
	Add GST on "X-A" (multiplying factor 0.1405)				1457.34
	TOTAL				12489.59 Y
	Add 15% CPOH on "Y-A"				1774.49
	TOTAL				14264.07 Z
	Add Cess @ 1% on "Z-A"				136.04

	Cost of 5 metre				14400.12
	Cost per metre				2880.02
	Say				2880.00
	FOR DPA 30% LESS				**2016**

18.66.3 200 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre MATERIAL				
	200 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 63.50 Kg Weight of 5 m pipes 63.50x5				
7714	= 317.50 Kg	metre 100	5.00	3238.00	16190.00
2322	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 200mm dia Carriage of Spun iron S & S pipes 200 mm dia	metre	0.05	971.45	48.57
	Labour for laying				
18.23	Rate same as per item no 18.23 of				
	SH: Water Supply	quintal	3.18	298.50	949.23 A
	TOTAL				17187.80 W
	Add 1 % Water charges on "W-A"				162.39
	TOTAL				17350.19 X
	Add GST on "X-A" (multiplying factor 0.1405)				2304.33
	TOTAL				19654.52 Y
	Add 15% CPOH on "Y-A"				2805.79
	TOTAL				22460.32 Z
	Add Cess @ 1% on "Z-A"				215.11
	Cost of 5 metre				22675.43
	Cost per metre				4535.09
	Say				4535.10
	FOR DPA 30% LESS				**3174.57**

18.66.4 250 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	250 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 85.30 Kg				
	Weight of 5 m pipes 85.30x5				
	= 426.50 Kg				
7715	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 250mm dia	metre	5.00	3905.00	19525.00
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	0.05	1380.48	69.02
	Labour for laying				
18.23	Rate same as per item no 18.23 of				
	SH: Water Supply	quintal	4.27	298.50	1274.60 A
	TOTAL				20868.62 W
	Add 1 % Water charges on "W-A"				195.94
	TOTAL				21064.56 X
	Add GST on "X-A" (multiplying factor 0.1405)				2780.49
	TOTAL				23845.05 Y
	Add 15% CPOH on "Y-A"				3385.57
	TOTAL				27230.62 Z
	Add Cess @ 1% on "Z-A"				259.56
	Cost of 5 metre				27490.18
	Cost per metre				5498.04
	Say				5498.05
	FOR DPA 30% LESS				**3848.635**

18.66.5 300 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	300 mm dia. cast iron pipes double flanged				

	Weight of 1 m pipes = 110.00 Kg Weight of 5 m pipes 110.00x5 = 550.00 Kg				
7716	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 300mm dia	metre	5.00	4990.00	24950.00
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	0.05	1706.30	85.32
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	5.50	298.50	1641.75 A
	TOTAL				26677.07 W
	Add 1 % Water charges on "W-A"				250.35
	TOTAL				26927.42 X
	Add GST on "X-A" (multiplying factor 0.1405)				3552.64
	TOTAL				30480.05 Y
	Add 15% CPOH on "Y-A"				4325.75
	TOTAL				34805.80 Z
	Add Cess @ 1% on "Z-A"				331.64
	Cost of 5 metre				35137.44
	Cost per metre				7027.49
	Say				7027.50
	FOR DPA 30% LESS				**4919.25**

18.66.6 350 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre MATERIAL 350 mm dia. cast iron pipes double flanged Weight of 1 m pipes = 135.70 Kg Weight of 5 m pipes 135.70x5 = 678.50 Kg				
7717	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 350mm dia	metre	5.00	6286.00	31430.00
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	0.05	2388.82	119.44
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	6.79	298.50	2026.82 A
	TOTAL				33576.26 W
	Add 1 % Water charges on "W-A"				315.49
	TOTAL				33891.75 X
	Add GST on "X-A" (multiplying factor 0.1405)				4477.02
	TOTAL				38368.77 Y
	Add 15% CPOH on "Y-A"				5451.29
	TOTAL				43820.07 Z
	Add Cess @ 1% on "Z-A"				417.93
	Cost of 5 metre				44238.00
	Cost per metre				8847.60
	Say				8847.60
	FOR DPA 30% LESS				**6193.32**

18.66.7 400 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre MATERIAL 400 mm dia. cast iron pipes double flanged Weight of 1 m pipes = 166.80 Kg Weight of 5 m pipes 166.80x5 = 834.00 Kg				
7718	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 400mm dia	metre	5.00	8143.00	40715.00
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	0.05	3257.48	162.87
	Labour for laying				
18.23	Rate same as per item no 18.23 of				

	SH: Water Supply	quintal	8.34	298.50	2489.49 A
	TOTAL				43367.36 W
	Add 1 % Water charges on "W-A"				408.78
	TOTAL				43776.14 X
	Add GST on "X-A" (multiplying factor 0.1405)				5800.77
	TOTAL				49576.92 Y
	Add 15% CPOH on "Y-A"				7063.11
	TOTAL				56640.03 Z
	Add Cess @ 1% on "Z-A"				541.51
	Cost of 5 metre				57181.54
	Cost per metre				11436.31
	Say				11436.30
	FOR DPA 30% LESS				**8005.41**

18.66.8 450 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	450 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 201.60 Kg				
	Weight of 5 m pipes 201.60x5 = 1008.00 Kg				
7719	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 450mm dia	metre	5.00	10381.00	51905.00
2327	Carriage of Spun iron S & S pipes 450 mm dia	100 metre	0.05	3981.36	199.07
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	10.08	298.50	3008.88 A
	TOTAL				55112.95 W
	Add 1 % Water charges on "W-A"				521.04
	TOTAL				55633.99 X
	Add GST on "X-A" (multiplying factor 0.1405)				7393.83
	TOTAL				63027.82 Y
	Add 15% CPOH on "Y-A"				9002.84
	TOTAL				72030.66 Z
	Add Cess @ 1% on "Z-A"				690.22
	Cost of 5 metre				72720.87
	Cost per metre				14544.17
	Say				14544.15
	FOR DPA 30% LESS				**10180.905**

18.66.9 500 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	500 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 234.80 Kg				
	Weight of 5 m pipes 234.80x5 = 1174.00 Kg				
7720	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 500mm dia	metre	5.00	12914.00	64570.00
2328	Carriage of Spun iron S & S pipes 500 mm dia	100 metre	0.05	3981.36	199.07
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	11.74	298.50	3504.39 A
	TOTAL				68273.46 W
	Add 1 % Water charges on "W-A"				647.69
	TOTAL				68921.15 X
	Add GST on "X-A" (multiplying				

Code	Description	Unit	Quantity	Rate	Amount
	factor 0.1405)				9191.05
	TOTAL				78112.20 Y
	Add 15% CPOH on "Y-A"				11191.17
	TOTAL				89303.38 Z
	Add Cess @ 1% on "Z-A"				857.99
	Cost of 5 metre				90161.37
	Cost per metre				18032.27
	Say				18032.25
	Details of cost for 5 metre				
	MATERIAL				
	600 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 315.30 Kg				
	Weight of 5 m pipes 315.30x5 = 1576.50 Kg				
7721	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 600mm dia	metre	5.00	17905.00	89525.00
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	0.05	5972.04	298.60
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	15.77	298.50	4707.35 A
	TOTAL				94530.95 W
	Add 1 % Water charges on "W-A"				898.24
	TOTAL				95429.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				12746.42
	TOTAL				108175.60 Y
	Add 15% CPOH on "Y-A"				15520.24
	TOTAL				123695.84 Z
	Add Cess @ 1% on "Z-A"				1189.88
	Cost of 5 metre				124885.72
	Cost per metre				24977.14
	Say				24977.15
	FOR DPA 30% LESS				**17484.005**

18.67 Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329 :

18.67.1 100 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate	Amount
7722	Details of cost for 10 metre MATERIAL 100mm dia. cast iron pipes (in 5.5 m lengths)	metre	10.00	800.00	8000.00
2343	Weight of 1 m pipes = 15.39 Kg Weight of 10m pipes 15.39x10 = 153.90 Kg	100 metre	0.10	358.32	35.83
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	1.54	298.50	459.69 A
	TOTAL				8495.52 W
	Add 1 % Water charges on "W-A"				80.36
	TOTAL				8575.88 X
	Add GST on "X-A" (multiplying factor 0.1405)				1140.32
	TOTAL				9716.21 Y
	Add 15% CPOH on "Y-A"				1388.48
	TOTAL				11104.68 Z
	Add Cess @ 1% on "Z-A"				106.45
	Cost of 10 metre				11211.13
	Cost per metre				1121.11
	Say				1121.10
	FOR DPA 30% LESS				**784.77**

18.67.2 150 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	150 mm dia. cast iron pipes				

Code	Description	Unit	Quantity	Rate	Amount
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 22.750 Kg				
	Weight of 10m pipes 22.750x10				
	= 227.50 Kg				
7723	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 150mm dia	metre	10.00	1140.00	11400.00
2344	Carriage of cast iron pipes 150 mm dia	100 metre	0.10	597.20	59.72
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	2.28	298.50	680.58 A
	TOTAL				12140.30 W
	Add 1 % Water charges on "W-A"				114.60
	TOTAL				12254.90 X
	Add GST on "X-A" (multiplying factor 0.1405)				1626.19
	TOTAL				13881.09 Y
	Add 15% CPOH on "Y-A"				1980.08
	TOTAL				15861.17 Z
	Add Cess @ 1% on "Z-A"				151.81
	Cost of 10 metre				16012.97
	Cost per metre				1601.30
	Say				1601.30
	FOR DPA 30% LESS				**1120.91**

18.67.3 200 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	200 mm dia. cast iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 30.090 Kg				
	Weight of 10m pipes 30.090x10				
	= 300.90 Kg				
7724	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 200mm dia	metre	10.00	1400.00	14000.00
2345	Carriage of cast iron pipes 200 mm dia	100 metre	0.10	971.45	97.15
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.01	298.50	898.49 A
	TOTAL				14995.63 W
	Add 1 % Water charges on "W-A"				140.97
	TOTAL				15136.60 X
	Add GST on "X-A" (multiplying factor 0.1405)				2000.46
	TOTAL				17137.06 Y
	Add 15% CPOH on "Y-A"				2435.79
	TOTAL				19572.84 Z
	Add Cess @ 1% on "Z-A"				186.74
	Cost of 10 metre				19759.59
	Cost per metre				1975.96
	Say				1975.95
	FOR DPA 30% LESS				**1383.165**

18.67.4 250 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	250mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 39.310 Kg				
	Weight of 10m pipes 39.310x10				
	= 393.10 Kg				
7725	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 250mm dia	metre	10.00	1800.00	18000.00
2346	Carriage of cast iron pipes 250 mm dia	100 metre	0.10	1380.48	138.05
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.93	298.50	1173.11 A

	TOTAL				19311.15 W
	Add 1 % Water charges on "W-A"				181.38
	TOTAL				19492.53 X
	Add GST on "X-A" (multiplying factor 0.1405)				2573.88
	TOTAL				22066.41 Y
	Add 15% CPOH on "Y-A"				3134.00
	TOTAL				25200.41 Z
	Add Cess @ 1% on "Z-A"				240.27
	Cost of 10 metre				25440.68
	Cost per metre				2544.07
	Say				2544.05
	FOR DPA 30% LESS				**1780.835**

18.67.5 300 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	300mm dia. cast iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 48.400 Kg				
	Weight of 10m pipes 48.400x10 = 484.00 Kg				
7726	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 300mm dia	metre	10.00	2250.00	22500.00
2347	Carriage of cast iron pipes 300 mm dia	100 metre	0.10	1706.30	170.63
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	4.84	298.50	1444.74 A
	TOTAL				24115.37 W
	Add 1 % Water charges on "W-A"				226.71
	TOTAL				24342.08 X
	Add GST on "X-A" (multiplying factor 0.1405)				3217.08
	TOTAL				27559.15 Y
	Add 15% CPOH on "Y-A"				3917.16
	TOTAL				31476.31 Z
	Add Cess @ 1% on "Z-A"				300.32
	Cost of 10 metre				31776.63
	Cost per metre				3177.66
	Say				3177.65
	FOR DPA 30% LESS				**2224.355**

18.67.6 350 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	350mm dia. cast iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 66.020 Kg				
	Weight of 10m pipes 66.020x10 = 660.20 Kg				
7727	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 350mm dia	metre	10.00	2650.00	26500.00
2348	Carriage of cast iron pipes 350 mm dia	100 metre	0.10	2388.82	238.88
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	6.60	298.50	1970.10 A
	TOTAL				28708.98 W
	Add 1 % Water charges on "W-A"				267.39
	TOTAL				28976.37 X
	Add GST on "X-A" (multiplying factor 0.1405)				3794.38
	TOTAL				32770.75 Y
	Add 15% CPOH on "Y-A"				4620.10
	TOTAL				37390.85 Z
	Add Cess @ 1% on "Z-A"				354.21

Code	Description	Unit	Quantity	Rate	Amount
	Cost of 10 metre				37745.06
	Cost per metre				3774.51
	Say				3774.50
	Details of cost for 10 metre				
	MATERIAL				
	400mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 78.280 Kg				
	Weight of 10m pipes 78.280x10				
	= 782.80 Kg				
7728	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 400mm dia	metre	10.00	3175.00	31750.00
2349	Carriage of cast iron pipes 400 mm dia	100 metre	0.10	3257.48	325.75
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	7.83	298.50	2337.26 A
	TOTAL				34413.00 W
	Add 1 % Water charges on "W-A"				320.76
	TOTAL				34733.76 X
	Add GST on "X-A" (multiplying factor 0.1405)				4551.71
	TOTAL				39285.47 Y
	Add 15% CPOH on "Y-A"				5542.23
	TOTAL				44827.70 Z
	Add Cess @ 1% on "Z-A"				424.90
	Cost of 10 metre				45252.61
	Cost per metre				4525.26
	Say				4525.25
	FOR DPA 30% LESS				**3167.675**
18.67.8	**450 mm dia Ductile Iron Class K-7 pipes**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	MATERIAL				
	450mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 91.410 Kg				
	Weight of 10m pipes 91.410x10				
	= 914.10 Kg				
7729	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 450mm dia	metre	10.00	3852.00	38520.00
2350	Carriage of cast iron pipes 450 mm dia	100 metre	0.10	3981.36	398.14
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	9.14	298.50	2728.29 A
	TOTAL				41646.43 W
	Add 1 % Water charges on "W-A"				389.18
	TOTAL				42035.61 X
	Add GST on "X-A" (multiplying factor 0.1405)				5522.68
	TOTAL				47558.29 Y
	Add 15% CPOH on "Y-A"				6724.50
	TOTAL				54282.78 Z
	Add Cess @ 1% on "Z-A"				515.54
	Cost of 10 metre				54798.33
	Cost per metre				5479.83
	Say				5479.85
	FOR DPA 30% LESS				**3835.895**
18.67.9	**500 mm dia Ductile Iron Class K-7 pipes**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	MATERIAL				
	500mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 106.640 Kg				
	Weight of 10m pipes 106.640x10				

Code	Description	Unit	Quantity	Rate	Amount
	= 1066.40 Kg				
7730	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 500mm dia	metre	10.00	4350.00	43500.00
2351	Carriage of cast iron pipes 500 mm dia	100 metre	0.10	3981.36	398.14
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	10.66	298.50	3182.01 A
	TOTAL				47080.15 W
	Add 1 % Water charges on "W-A"				438.98
	TOTAL				47519.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				6229.36
	TOTAL				53748.49 Y
	Add 15% CPOH on "Y-A"				7584.97
	TOTAL				61333.46 Z
	Add Cess @ 1% on "Z-A"				581.51
	Cost of 10 metre				61914.98
	Cost per metre				6191.50
	Say				6191.50
	FOR DPA 30% LESS				**4334.05**

18.67.10 600 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	600mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 138.61 Kg				
	Weight of 10m pipes 138.61x10				
	= 1386.10 Kg				
7731	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 600mm dia	metre	10.00	5600.00	56000.00
2352	Carriage of cast iron pipes 600 mm dia	100 metre	0.10	5972.04	597.20
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	13.86	298.50	4137.21 A
	TOTAL				60734.41 W
	Add 1 % Water charges on "W-A"				565.97
	TOTAL				61300.39 X
	Add GST on "X-A" (multiplying factor 0.1405)				8031.43
	TOTAL				69331.81 Y
	Add 15% CPOH on "Y-A"				9779.19
	TOTAL				79111.00 Z
	Add Cess @ 1% on "Z-A"				749.74
	Cost of 10 metre				79860.74
	Cost per metre				7986.07
	Say				7986.05
	Details of cost for 10 metre				
	MATERIAL				
	700mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 188.92 Kg				
	Weight of 10m pipes 188.92x10				
	= 1889.20 Kg				
7732	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 700mm dia	metre	10.00	7300.00	73000.00
2353	Carriage of cast iron pipes 700 mm dia	100 metre	0.10	5972.04	597.20
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	18.89	298.50	5638.67 A
	TOTAL				79235.87 W
	Add 1 % Water charges on "W-A"				735.97
	TOTAL				79971.84 X
	Add GST on "X-A" (multiplying factor 0.1405)				10443.81

	TOTAL				90415.65 Y
	Add 15% CPOH on "Y-A"				12716.55
	TOTAL				103132.20 Z
	Add Cess @ 1% on "Z-A"				974.94
	Cost of 10 metre				104107.14
	Cost per metre				10410.71
	Say				10410.70
	FOR DPA 30% LESS				**7287.49**

18.67.12 800 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	800mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 243.51 Kg				
	Weight of 10m pipes 243.51x10				
	= 2435.10 Kg				
7733	Ductile Iron Class K- 7 pipe conforming				
	to I.S. 8329 - 800mm dia	metre	10.00	9100.00	91000.00
2355	Carriage of cast iron pipes 800 mm dia	100 metre	0.10	5972.04	597.20
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	24.35	298.50	7268.48 A
	TOTAL				98865.68 W
	Add 1 % Water charges on "W-A"				915.97
	TOTAL				99781.65 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				12998.10
	TOTAL				112779.75 Y
	Add 15% CPOH on "Y-A"				15826.69
	TOTAL				128606.44 Z
	Add Cess @ 1% on "Z-A"				1213.38
	Cost of 10 metre				129819.82
	Cost per metre				12981.98
	Say				12982.00
	FOR DPA 30% LESS				**9087.4**

18.67.13 900 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	900 mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 282.74 Kg				
	Weight of 10m pipes 282.74x10				
	= 2827.40 Kg				
7734	Ductile Iron Class K- 7 pipe conforming				
	to I.S. 8329 - 900mm dia	metre	10.00	11800.00	118000.00
2356	Carriage of cast iron pipes 900 mm dia	100 metre	0.10	8958.06	895.81
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	28.27	298.50	8438.60 A
	TOTAL				127334.40 W
	Add 1 % Water charges on "W-A"				1188.96
	TOTAL				128523.36 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				16871.91
	TOTAL				145395.27 Y
	Add 15% CPOH on "Y-A"				20543.50
	TOTAL				165938.77 Z
	Add Cess @ 1% on "Z-A"				1575.00
	Cost of 10 metre				167513.77
	Cost per metre				16751.38
	Say				16751.40
	FOR DPA 30% LESS				**11725.98**

18.67.14 1000 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	1000 mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 348.23 Kg				
	Weight of 10m pipes 348.23x10				
	= 3482.30 Kg				
7735	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 1000mm dia	metre	10.00	12300.00	123000.00
2357	Carriage of cast iron pipes 1000 mm dia	100 metre	0.10	11944.08	1194.41
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	34.82	298.50	10393.77 A
	TOTAL				134588.18 W
	Add 1 % Water charges on "W-A"				1241.94
	TOTAL				135830.12 X
	Add GST on "X-A" (multiplying factor 0.1405)				17623.81
	TOTAL				153453.93 Y
	Add 15% CPOH on "Y-A"				21459.02
	TOTAL				174912.95 Z
	Add Cess @ 1% on "Z-A"				1645.19
	Cost of 10 metre				176558.15
	Cost per metre				17655.81
	Say				17655.80
	Details of cost for 10 metre				
	MATERIAL				
	100mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 17.76 Kg				
	Weight of 10m pipes 17.76x10				
	= 177.60 Kg				
7651	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 100mm dia	metre	10.00	765.00	7650.00
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.10	358.32	35.83
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	1.776	298.50	530.14 A
	TOTAL				8215.97 W
	Add 1 % Water charges on "W-A"				76.86
	TOTAL				8292.83 X
	Add GST on "X-A" (multiplying factor 0.1405)				1090.66
	TOTAL				9383.48 Y
	Add 15% CPOH on "Y-A"				1328.00
	TOTAL				10711.49 Z
	Add Cess @ 1% on "Z-A"				101.81
	Cost of 10 metre				10813.30
	Cost per metre				1081.33
	Say				1081.35
	FOR DPA 30% LESS				**756.945**

18.67.16 150 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	150 mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 26.27 Kg				
	Weight of 10m pipes 26.27x10				
	= 262.70 Kg				
7652	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 150mm dia	metre	10.00	1150.00	11500.00
2321	Carriage of Spun iron S & S pipes				

Code	Description	Unit	Quantity	Rate	Amount
	150 mm dia	100 metre	0.10	597.20	59.72
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	2.627	298.50	784.16 A
	TOTAL				12343.88 W
	Add 1 % Water charges on "W-A"				115.60
	TOTAL				12459.48 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				1640.38
	TOTAL				14099.86 Y
	Add 15% CPOH on "Y-A"				1997.35
	TOTAL				16097.21 Z
	Add Cess @ 1% on "Z-A"				153.13
	Cost of 10 metre				16250.34
	Cost per metre				1625.03
	Say				1625.05
	FOR DPA 30% LESS				**1137.535**

18.67.17 200 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	200 mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 36.15 Kg				
	Weight of 10m pipes 36.15x10				
	= 361.50 Kg				
7653	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 200mm dia	metre	10.00	1575.00	15750.00
2322	Carriage of Spun iron S & S pipes				
	200 mm dia	100 metre	0.10	971.45	97.15
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	3.615	298.50	1079.08 A
	TOTAL				16926.22 W
	Add 1 % Water charges on "W-A"				158.47
	TOTAL				17084.69 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				2248.79
	TOTAL				19333.48 Y
	Add 15% CPOH on "Y-A"				2738.16
	TOTAL				22071.64 Z
	Add Cess @ 1% on "Z-A"				209.93
	Cost of 10 metre				22281.57
	Cost per metre				2228.16
	Say				2228.15
	FOR DPA 30% LESS				**1559.705**

18.67.18 250 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	250mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 48.00 Kg				
	Weight of 10m pipes 48.00x10				
	= 480.00 Kg				
7654	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 250mm dia	metre	10.00	2200.00	22000.00
2323	Carriage of Spun iron S & S pipes				
	250 mm dia	100 metre	0.10	1380.48	138.05
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	4.80	298.50	1432.80 A
	TOTAL				23570.85 W
	Add 1 % Water charges on "W-A"				221.38
	TOTAL				23792.23 X

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X-A" (multiplying factor 0.1405)				3141.50
	TOTAL				26933.73 Y
	Add 15% CPOH on "Y-A"				3825.14
	TOTAL				30758.87 Z
	Add Cess @ 1% on "Z-A"				293.26
	Cost of 10 metre				31052.13
	Cost per metre				3105.21
	Say				3105.20
	Details of cost for 10 metre				
	MATERIAL				
	300mm dia. cast iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 60.490 Kg				
	Weight of 10m pipes 60.490x10 = 604.90 Kg				
7655	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 300mm dia	metre	10.00	2750.00	27500.00
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	0.10	1706.30	170.63
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	6.049	298.50	1805.63 A
	TOTAL				29476.26 W
	Add 1 % Water charges on "W-A"				276.71
	TOTAL				29752.96 X
	Add GST on "X-A" (multiplying factor 0.1405)				3926.60
	TOTAL				33679.56 Y
	Add 15% CPOH on "Y-A"				4781.09
	TOTAL				38460.65 Z
	Add Cess @ 1% on "Z-A"				366.55
	Cost of 10 metre				38827.20
	Cost per metre				3882.72
	Say				3882.70
	FOR DPA 30% LESS				**2717.89**

18.67.20 350 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	350mm dia. cast iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 79.730 Kg				
	Weight of 10m pipes 79.730x10 = 797.30 Kg				
7656	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 350mm dia	metre	10.00	3350.00	33500.00
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	0.10	2388.82	238.88
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	7.973	298.50	2379.94 A
	TOTAL				36118.82 W
	Add 1 % Water charges on "W-A"				337.39
	TOTAL				36456.21 X
	Add GST on "X-A" (multiplying factor 0.1405)				4787.72
	TOTAL				41243.93 Y
	Add 15% CPOH on "Y-A"				5829.60
	TOTAL				47073.53 Z
	Add Cess @ 1% on "Z-A"				446.94
	Cost of 10 metre				47520.46
	Cost per metre				4752.05
	Say				4752.05
	FOR DPA 30% LESS				**3326.435**

18.67.21	400 mm dia Ductile Iron Class K-9 pipes				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	MATERIAL				
	400mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 94.800 Kg				
	Weight of 10m pipes 94.800x10				
	= 948.00 Kg				
7657	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 400mm dia	metre	10.00	4300.00	43000.00
2326	Carriage of Spun iron S & S pipes				
	400 mm dia	100 metre	0.10	3257.48	325.75
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	9.48	298.50	2829.78 A
	TOTAL				46155.53 W
	Add 1 % Water charges on "W-A"				433.26
	TOTAL				46588.79 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				6148.14
	TOTAL				52736.93 Y
	Add 15% CPOH on "Y-A"				7486.07
	TOTAL				60223.00 Z
	Add Cess @ 1% on "Z-A"				573.93
	Cost of 10 metre				60796.93
	Cost per metre				6079.69
	Say				6079.70
	FOR DPA 30% LESS				**4255.79**

18.67.22	450 mm dia Ductile Iron Class K-9 pipes				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	MATERIAL				
	450mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 110.970 Kg				
	Weight of 10m pipes 110.970x10				
	= 1109.70 Kg				
7658	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 450mm dia	metre	10.00	5000.00	50000.00
2327	Carriage of Spun iron S & S pipes				
	450 mm dia	100 metre	0.10	3981.36	398.14
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	11.097	298.50	3312.45 A
	TOTAL				53710.59 W
	Add 1 % Water charges on "W-A"				503.98
	TOTAL				54214.57 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				7151.75
	TOTAL				61366.32 Y
	Add 15% CPOH on "Y-A"				8708.08
	TOTAL				70074.40 Z
	Add Cess @ 1% on "Z-A"				667.62
	Cost of 10 metre				70742.02
	Cost per metre				7074.20
	Say				7074.20
	Details of cost for 10 metre				
	MATERIAL				
	500mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 129.480 Kg				
	Weight of 10m pipes 129.480x10				
	= 1294.80 Kg				
7659	Ductile Iron class K - 9 pipe Conforming				

	to I.S. 8329 - 500mm dia	metre	10.00	6270.00	62700.00
2328	Carriage of Spun iron S & S pipes				
	500 mm dia	100 metre	0.10	3981.36	398.14
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	12.948	298.50	3864.98 A
	TOTAL				66963.11 W
	Add 1 % Water charges on "W-A"				630.98
	TOTAL				67594.10 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				8953.94
	TOTAL				76548.04 Y
	Add 15% CPOH on "Y-A"				10902.46
	TOTAL				87450.50 Z
	Add Cess @ 1% on "Z-A"				835.86
	Cost of 10 metre				88286.35
	Cost per metre				8828.64
	Say				8828.65
	FOR DPA 30% LESS				**6180.055**

18.67.24 600 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	600mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 168.680 Kg				
	Weight of 10m pipes 168.680x10				
	= 1686.80 Kg				
7660	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 600mm dia	metre	10.00	7560.00	75600.00
2329	Carriage of Spun iron S & S pipes				
	600mm dia	100 metre	0.10	5972.04	597.20
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	16.868	298.50	5035.10 A
	TOTAL				81232.30 W
	Add 1 % Water charges on "W-A"				761.97
	TOTAL				81994.27 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				10812.76
	TOTAL				92807.04 Y
	Add 15% CPOH on "Y-A"				13165.79
	TOTAL				105972.83 Z
	Add Cess @ 1% on "Z-A"				1009.38
	Cost of 10 metre				106982.21
	Cost per metre				10698.22
	Say				10698.20
	FOR DPA 30% LESS				**7488.74**

18.67.25 700 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	700mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 217.540 Kg				
	Weight of 10m pipes 217.540x10				
	= 2175.40 Kg				
7661	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 700mm dia	metre	10.00	10500.00	105000.00
2330	Carriage of C.I. pipes 500 mm dia	100 metre	0.10	3981.36	398.14
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	21.754	298.50	6493.57 A
	TOTAL				111891.71 W
	Add 1 % Water charges on "W-A"				1053.98

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				112945.69 X
	Add GST on "X-A" (multiplying factor 0.1405)				14956.52
	TOTAL				127902.21 Y
	Add 15% CPOH on "Y-A"				18211.30
	TOTAL				146113.50 Z
	Add Cess @ 1% on "Z-A"				1396.20
	Cost of 10 metre				147509.70
	Cost per metre				14750.97
	Say				14750.95
	FOR DPA 30% LESS				**10325.665**

18.67.26 750 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	750mm dia. cast iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 242.600 Kg				
	Weight of 10m pipes 242.600x10 = 2426.00 Kg				
7662	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 750mm dia	metre	10.00	11350.00	113500.00
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	0.10	8958.06	895.81
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	24.26	298.50	7241.61 A
	TOTAL				121637.42 W
	Add 1 % Water charges on "W-A"				1143.96
	TOTAL				122781.37 X
	Add GST on "X-A" (multiplying factor 0.1405)				16233.34
	TOTAL				139014.71 Y
	Add 15% CPOH on "Y-A"				19765.97
	TOTAL				158780.68 Z
	Add Cess @ 1% on "Z-A"				1515.39
	Cost of 10 metre				160296.07
	Cost per metre				16029.61
	Say				16029.60
	Details of cost for 10 metre				
	MATERIAL				
	800 mm dia. cast iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 267.100 Kg				
	Weight of 10m pipes 267.100x10 = 2671.00 Kg				
7663	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 800mm dia	metre	10.00	11450.00	114500.00
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	0.10	11944.08	1194.41
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	26.71	298.50	7972.94 A
	TOTAL				123667.34 W
	Add 1 % Water charges on "W-A"				1156.94
	TOTAL				124824.29 X
	Add GST on "X-A" (multiplying factor 0.1405)				16417.61
	TOTAL				141241.90 Y
	Add 15% CPOH on "Y-A"				19990.35
	TOTAL				161232.25 Z
	Add Cess @ 1% on "Z-A"				1532.59
	Cost of 10 metre				162764.84
	Cost per metre				16276.48
	Say				16276.50
	FOR DPA 30% LESS				**11393.55**

18.67.28 900 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	900 mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 321.290 Kg				
	Weight of 10m pipes 321.290x10				
	= 3212.90 Kg				
7664	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 900mm dia	metre	10.00	13900.00	139000.00
2333	Carriage of R.C.C. pipes 1100 mm dia	100 metre	0.10	11944.08	1194.41
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	32.129	298.50	9590.51 A
	TOTAL				149784.91 W
	Add 1 % Water charges on "W-A"				1401.94
	TOTAL				151186.86 X
	Add GST on "X-A" (multiplying factor 0.1405)				19894.29
	TOTAL				171081.15 Y
	Add 15% CPOH on "Y-A"				24223.60
	TOTAL				195304.74 Z
	Add Cess @ 1% on "Z-A"				1857.14
	Cost of 10 metre				197161.88
	Cost per metre				19716.19
	Say				19716.20
	FOR DPA 30% LESS				**13801.34**

18.67.29 1000 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
	1000 mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 380.190 Kg				
	Weight of 10m pipes 380.190x10				
	= 3801.90 Kg				
7665	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 1000mm dia	metre	10.00	15550.00	155500.00
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	0.10	11944.08	1194.41
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	38.019	298.50	11348.67 A
	TOTAL				168043.08 W
	Add 1 % Water charges on "W-A"				1566.94
	TOTAL				169610.02 X
	Add GST on "X-A" (multiplying factor 0.1405)				22235.72
	TOTAL				191845.74 Y
	Add 15% CPOH on "Y-A"				27074.56
	TOTAL				218920.30 Z
	Add Cess @ 1% on "Z-A"				2075.72
	Cost of 10 metre				220996.02
	Cost per metre				22099.60
	Say				22099.60
	FOR DPA 30% LESS				**15469.72**

18.68 Providing and laying Double Flanged (Screwed/ Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS : 8329 :

18.68.1 100 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	100 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 21.700 Kg				
	Weight of 5 m pipes 21.700x5				

	= 108.50 Kg				
7686	Ductile Iron Pipe Class K-9 flanges and welding 100mm dia	metre	5.00	1100.00	5500.00
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.05	358.32	17.92
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	1.09	298.50	325.37 A
	TOTAL				5843.28 W
	Add 1 % Water charges on "W-A"				55.18
	TOTAL				5898.46 X
	Add GST on "X-A" (multiplying factor 0.1405)				783.02
	TOTAL				6681.48 Y
	Add 15% CPOH on "Y-A"				953.42
	TOTAL				7634.90 Z
	Add Cess @ 1% on "Z-A"				73.10
	Cost of 5 metre				7707.99
	Cost per metre				1541.60
	Say				1541.60
	Details of cost for 5 metre				
	MATERIAL				
	150 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 32.600 Kg				
	Weight of 5 m pipes 32.600x5				
	= 163.00 Kg				
7687	Ductile Iron Pipe Class K-9 flanges and welding 150 dia	metre	5.00	1650.00	8250.00
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	0.05	597.20	29.86
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	1.63	298.50	486.56 A
	TOTAL				8766.42 W
	Add 1 % Water charges on "W-A"				82.80
	TOTAL				8849.21 X
	Add GST on "X-A" (multiplying factor 0.1405)				1174.95
	TOTAL				10024.17 Y
	Add 15% CPOH on "Y-A"				1430.64
	TOTAL				11454.81 Z
	Add Cess @ 1% on "Z-A"				109.68
	Cost of 5 metre				11564.49
	Cost per metre				2312.90
	Say				2312.90
	FOR DPA 30% LESS				**1619.03**

18.68.3 200 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	200 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 44.200 Kg				
	Weight of 5 m pipes 44.200x5				
	= 221.00 Kg				
7688	Ductile Iron Pipe Class K-9 flanges and welding 200mm dia	metre	5.00	2075.00	10375.00
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	0.05	971.45	48.57
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	2.21	298.50	659.69 A
	TOTAL				11083.26 W
	Add 1 % Water charges on "W-A"				104.24

	TOTAL				11187.49 X
	Add GST on "X-A" (multiplying factor 0.1405)				1479.16
	TOTAL				12666.65 Y
	Add 15% CPOH on "Y-A"				1801.04
	TOTAL				14467.70 Z
	Add Cess @ 1% on "Z-A"				138.08
	Cost of 5 metre				14605.78
	Cost per metre				2921.16
	Say				2921.15
	FOR DPA 30% LESS				**2044.805**

18.68.4 250 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	250 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 59.400 Kg				
	Weight of 5 m pipes 59.400x5 = 297.00 Kg				
7689	Ductile Iron Pipe Class K-9 flanges and welding 250mm dia	metre	5.00	2950.00	14750.00
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	0.05	1380.48	69.02
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	2.97	298.50	886.55 A
	TOTAL				15705.57 W
	Add 1 % Water charges on "W-A"				148.19
	TOTAL				15853.76 X
	Add GST on "X-A" (multiplying factor 0.1405)				2102.89
	TOTAL				17956.65 Y
	Add 15% CPOH on "Y-A"				2560.52
	TOTAL				20517.17 Z
	Add Cess @ 1% on "Z-A"				196.31
	Cost of 5 metre				20713.48
	Cost per metre				4142.70
	Say				4142.70
	FOR DPA 30% LESS				**2899.89**

18.68.5 300 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	300 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 76.400 Kg				
	Weight of 5 m pipes 76.400x5 = 382.00 Kg				
7690	Ductile Iron Pipe Class K-9 flanges and welding 300mm dia	metre	5.00	3790.00	18950.00
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	0.05	1706.30	85.32
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	3.82	298.50	1140.27 A
	TOTAL				20175.59 W
	Add 1 % Water charges on "W-A"				190.35
	TOTAL				20365.94 X
	Add GST on "X-A" (multiplying factor 0.1405)				2701.21
	TOTAL				23067.14 Y
	Add 15% CPOH on "Y-A"				3289.03
	TOTAL				26356.18 Z
	Add Cess @ 1% on "Z-A"				252.16

Code	Description	Unit	Quantity	Rate	Amount
	Cost of 5 metre				26608.33
	Cost per metre				5321.67
	Say				5321.65
	Details of cost for 5 metre				
	MATERIAL				
	350 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 91.400 Kg				
	Weight of 5 m pipes 91.400x5 = 457.00 Kg				
7691	Ductile Iron Pipe Class K-9 flanges and welding 350mm dia	metre	5.00	4780.00	23900.00
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	0.05	2388.82	119.44
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	4.57	298.50	1364.15 A
	TOTAL				25383.59 W
	Add 1 % Water charges on "W-A"				240.19
	TOTAL				25623.78 X
	Add GST on "X-A" (multiplying factor 0.1405)				3408.48
	TOTAL				29032.26 Y
	Add 15% CPOH on "Y-A"				4150.22
	TOTAL				33182.48 Z
	Add Cess @ 1% on "Z-A"				318.18
	Cost of 5 metre				33500.66
	Cost per metre				6700.13
	Say				6700.15
	FOR DPA 30% LESS				**4690.105**

18.68.7 400 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	400 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 108.100 Kg				
	Weight of 5 m pipes 108.100x5 = 540.50 Kg				
7692	Ductile Iron Pipe Class K-9 flanges and welding 400mm dia	metre	5.00	6150.00	30750.00
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	0.05	3257.48	162.87
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	5.40	298.50	1611.90 A
	TOTAL				32524.77 W
	Add 1 % Water charges on "W-A"				309.13
	TOTAL				32833.90 X
	Add GST on "X-A" (multiplying factor 0.1405)				4386.69
	TOTAL				37220.59 Y
	Add 15% CPOH on "Y-A"				5341.30
	TOTAL				42561.90 Z
	Add Cess @ 1% on "Z-A"				409.50
	Cost of 5 metre				42971.40
	Cost per metre				8594.28
	Say				8594.30
	FOR DPA 30% LESS				**6016.01**

18.68.8 450 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	450 mm dia. ductile iron pipes double flanged				

	Weight of 1 m pipes = 127.800 Kg				
	Weight of 5 m pipes 127.800x5				
	= 639.00 Kg				
7693	Ductile Iron Pipe Class K-9 flanges and welding 450mm dia	metre	5.00	6453.00	32265.00
2327	Carriage of Spun iron S & S pipes 450 mm dia	100 metre	0.05	3981.36	199.07
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	6.39	298.50	1907.42 A
	TOTAL				34371.48 W
	Add 1 % Water charges on "W-A"				324.64
	TOTAL				34696.12 X
	Add GST on "X-A" (multiplying factor 0.1405)				4606.81
	TOTAL				39302.94 Y
	Add 15% CPOH on "Y-A"				5609.33
	TOTAL				44912.27 Z
	Add Cess @ 1% on "Z-A"				430.05
	Cost of 5 metre				45342.31
	Cost per metre				9068.46
	Say				9068.45
	FOR DPA 30% LESS				**6347.915**

18.68.9 500 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	500 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 147.900 Kg				
	Weight of 5 m pipes 147.900x5				
	= 739.50 Kg				
7694	Ductile Iron Pipe Class K-9 flanges and welding 500mm dia	metre	5.00	9180.00	45900.00
2328	Carriage of Spun iron S & S pipes 500 mm dia	100 metre	0.05	3981.36	199.07
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	7.40	298.50	2208.90 A
	TOTAL				48307.97 W
	Add 1 % Water charges on "W-A"				460.99
	TOTAL				48768.96 X
	Add GST on "X-A" (multiplying factor 0.1405)				6541.69
	TOTAL				55310.65 Y
	Add 15% CPOH on "Y-A"				7965.26
	TOTAL				63275.91 Z
	Add Cess @ 1% on "Z-A"				610.67
	Cost of 5 metre				63886.58
	Cost per metre				12777.32
	Say				12777.30
	Details of cost for 5 metre				
	MATERIAL				
	600 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 198.900 Kg				
	Weight of 5 m pipes 198.900x5				
	= 994.50 Kg				
7695	Ductile Iron Pipe Class K-9 flanges and welding 600mm dia	metre	5.00	12150.00	60750.00
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	0.05	5972.04	298.60
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	9.95	298.50	2970.08 A

	TOTAL				64018.68 W
	Add 1 % Water charges on "W-A"				610.49
	TOTAL				64629.16 X
	Add GST on "X-A" (multiplying factor 0.1405)				8663.10
	TOTAL				73292.26 Y
	Add 15% CPOH on "Y-A"				10548.33
	TOTAL				83840.59 Z
	Add Cess @ 1% on "Z-A"				808.71
	Cost of 5 metre				84649.30
	Cost per metre				16929.86
	Say				16929.85
	FOR DPA 30% LESS				**11850.895**

18.68.11 700 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 5 metre				
	MATERIAL				
	700 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 254.900 Kg				
	Weight of 5 m pipes 254.900x5 = 1274.50 Kg				
7696	Ductile Iron Pipe Class K-9 flanges and welding 700mm dia	metre	5.00	14370.00	71850.00
2330	Carriage of C.I. pipes 500 mm dia	100 metre	0.05	3981.36	199.07
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	12.75	298.50	3805.88 A
	TOTAL				75854.94 W
	Add 1 % Water charges on "W-A"				720.49
	TOTAL				76575.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				10224.12
	TOTAL				86799.56 Y
	Add 15% CPOH on "Y-A"				12449.05
	TOTAL				99248.61 Z
	Add Cess @ 1% on "Z-A"				954.43
	Cost of 5 metre				100203.04
	Cost per metre				20040.61
	Say				20040.60
	FOR DPA 30% LESS				**14028.42**

18.69 Providing and fixing unplasticised P.V.C. connection pipe with PTMT Nuts, collar and bush of approved quality and colour.

18.69.1 15 mm nominal bore with 30cm length

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7862	15 mm nominal bore and 30 cm length PVC connection pipe with P.T.M.T. Nuts	each	1.00	38.00	38.00
9988	Carriage of materials and fixing charges	L.S.	12.22	2.12	25.91
	TOTAL				63.91 W
	Add 1 % Water charges on "W"				0.64
	TOTAL				64.55 X
	Add GST on "X" (multiplying factor 0.1405)				9.07
	TOTAL				73.61 Y
	Add 15% CPOH on "Y"				11.04
	TOTAL				84.66 Z
	Add Cess @ 1% on "Z"				0.85
	Cost of one no.				85.50
	Say				85.50
	FOR DPA 30% LESS				**59.85**

18.69.2 15 mm nominal bore with 45 cm length

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for one no.				
	MATERIAL				
7863	15 mm nominal bore and 45 cm length PVC connection pipe with P.T.M.T. Nuts	each	1.00	52.00	52.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				80.66 W
	Add 1 % Water charges on "W"				0.81
	TOTAL				81.47 X
	Add GST on "X" (multiplying factor 0.1405)				11.45
	TOTAL				92.92 Y
	Add 15% CPOH on "Y"				13.94
	TOTAL				106.85 Z
	Add Cess @ 1% on "Z"				1.07
	Cost of one no.				107.92
	Say				107.90
	FOR DPA 30% LESS				**75.53**

18.70 **Providing and fixing PTMT extension nipple for water tank pipe, fittings of approved quality and colour.**

18.70.1 **15 mm nominal bore, weighing not less than 32 gms**

Code	Description	Unit	Quantity	Rate	Amount
7864	Details of cost for one no. MATERIAL P.T.M.T. extension nipple 15mm	each	1.00	25.00	25.00
9988	Carriage of materials and fixing charges	L.S.	3.38	2.12	7.17
	TOTAL				32.17 W
	Add 1 % Water charges on "W"				0.32
	TOTAL				32.49 X
	Add GST on "X" (multiplying factor 0.1405)				4.56
	TOTAL				37.05 Y
	Add 15% CPOH on "Y"				5.56
	TOTAL				42.61 Z
	Add Cess @ 1% on "Z"				0.43
	Cost of one no.				43.04
	Say				43.05
	FOR DPA 30% LESS				**30.135**

18.70.2 **20 mm nominal bore, weighing not less than 40 gms**

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7865	P.T.M.T. extension nipple 20mm	each	1.00	50.00	50.00
9988	Carriage of materials and fixing charges	L.S.	3.38	2.12	7.17
	TOTAL				57.17 W
	Add 1 % Water charges on "W"				0.57
	TOTAL				57.74 X
	Add GST on "X" (multiplying factor 0.1405)				8.11
	TOTAL				65.85 Y
	Add 15% CPOH on "Y"				9.88
	TOTAL				75.73 Z
	Add Cess @ 1% on "Z"				0.76
	Cost of one no.				76.48
	Say				76.50
	FOR DPA 30% LESS				**53.55**

18.70.3 **25mm nominal bore, weighing not less than 62 gms**

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7866	P.T.M.T. extension nipple 25mm	each	1.00	68.00	68.00
9988	Carriage of materials and fixing charges	L.S.	3.38	2.12	7.17
	TOTAL				75.17 W
	Add 1 % Water charges on "W"				0.75
	TOTAL				75.92 X
	Add GST on "X" (multiplying				

	factor 0.1405)				10.67
	TOTAL				86.58 Y
	Add 15% CPOH on "Y"				12.99
	TOTAL				99.57 Z
	Add Cess @ 1% on "Z"				1.00
	Cost of one no.				100.57
	Say				100.55
	FOR DPA 30% LESS				**70.385**

18.71 Cutting holes up to 30x30 cm in walls including making good the same:

18.71.1 With common burnt clay F.P.S. (non modular) bricks

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 holes				
	Size 30x30 cm in 34 cm wall				
	Labour for cutting holes				
0123	Mason (brick layer) 1st class	day	0.16	784.00	125.44
0124	Mason (brick layer) 2nd class	day	0.16	714.00	114.24
0114	Beldar	day	1.25	645.00	806.25
	Brick work with bricks of class				
	designation 75 in cement mortar				
	1:4 (1 cement : 4 coarse sand)				
	10x0.30x0.30x0.344m = 0.309 cum				
	Less 33% for pipe etc. = (-) 0.102 cum				
	= 0.207 cum Say 0.21 cum				
6.4.1	Rate as per item No 6.4.1 of				
	SH :- Brick work.	cum	0.21	8512.10	1787.54 A
	12 mm cement plaster 1:4 (1 cement :				
	4 coarse sand)				
	10x2x0.3x0.3m = 1.80 sqm				
	Les 33% for pipe etc. = (-) 0.59 sqm				
	= 1.21 sqm Say 1.20 sqm				
13.4.1	(Rate as per item no 13.4.1 of				
	SH : Finishing)	sqm	1.20	307.25	368.70 A
9999	Add for delay	L.S.	16.12	2.12	34.17
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				3253.43 W
	Add 1 % Water charges on "W-A"				10.97
	TOTAL				3264.40 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				155.70
	TOTAL				3420.10 Y
	Add 15% CPOH on "Y-A"				189.58
	TOTAL				3609.68 Z
	Add Cess @ 1% on "Z-A"				14.53
	Cost of 10 holes				3624.21
	Cost of 1 hole				362.42
	Say				362.40
	FOR DPA 30% LESS				**253.68**

18.72 Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 holes				
	Average size 15x15x15 cm				
	Labour for cutting holes				
0123	Mason (brick layer) 1st class	day	0.83	784.00	650.72
0124	Mason (brick layer) 2nd class	day	0.83	714.00	592.62
0114	Beldar	day	1.67	645.00	1077.15
	Cement concrete 1:2:4 (1 cement :				
	2 coarse sand ; 4 graded stone				
	aggregate 20 mm nominal size)				
	10x0.15x0.15x0.15 m = 0.033 cum				
	Les 33% for pipe etc. = (-) 0.011 cum				
	= 0.022 cum Say 0.0.02 cum				

4.1.3	Rate as per item no. 4.1.3 of SH : concrete Work	cum	0.02	7365.15	147.30 A
9999	Finishing top and bottom and making the holes leak proof	L.S.	121.16	2.12	256.86
9999	Add for delay	L.S.	40.30	2.12	85.44
9999	Sundries	L.S.	21.58	2.12	45.75
	TOTAL				2855.84 W
	Add 1 % Water charges on "W-A"				27.09
	TOTAL				2882.92 X
	Add GST on "X-A" (multiplying factor 0.1405)				384.35
	TOTAL				3267.28 Y
	Add 15% CPOH on "Y-A"				468.00
	TOTAL				3735.27 Z
	Add Cess @ 1% on "Z-A"				35.88
	Cost of 10 holes				3771.15
	Cost of 1 hole				377.12
	Say				377.10
	FOR DPA 30% LESS				**263.97**

18.73 Making chases up to 7.5x7.5 cm in walls including making good and finishing with matching surface after housing G.I. pipe etc.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metres				
	Labour for making chases				
0123	Mason (brick layer) 1st class	day	0.25	784.00	196.00
0124	Mason (brick layer) 2nd class	day	0.25	714.00	178.50
0114	Beldar	day	1.00	645.00	645.00
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) 0.075x0.075x10 m = 0.05625 cum Les 33% for pipe etc. = (-) 0.01856 cum = 0.03769 cum Say 0.04 cum				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.04	8843.45	353.74 A
	TOTAL				1373.24 W
	Add 1 % Water charges on "W-A"				10.20
	TOTAL				1383.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				144.67
	TOTAL				1528.11 Y
	Add 15% CPOH on "Y-A"				176.16
	TOTAL				1704.26 Z
	Add Cess @ 1% on "Z-A"				13.51
	Cost of 10 metre				1717.77
	Cost of 1 metre				171.78
	Say				171.80
	FOR DPA 30% LESS				**120.26**

18.74 Making hole up to 20x20 cm and embedding pipes up to 150 mm diameter in masonry and filling with cement concrete 1:3:6 (1 cement : 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) including disposal of malba.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metres				
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) 0.2x0.2x10 m = 0.40 cum Les for pipe 3.14x(0.15)²/4x10 = (-) 0.177 cum = 0.223 cum Say 0.22 cum				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.22	8843.45	1945.56 A
9999	Disposal of malba	L.S.	13.52	2.12	28.66
	TOTAL				1974.22 W

	Add 1 % Water charges on "W-A"				0.29
	TOTAL				1974.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.07
	TOTAL				1978.58 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				1983.53 Z
	Add Cess @ 1% on "Z-A"				0.38
	Cost of 10 metre				1983.91
	Cost of 1 metre				198.39
	Say				198.40
	FOR DPA 30% LESS				**138.88**

18.75 Disinfecting C.I. water mains by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory.

18.75.1 80 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder 3x3.14/4x(80/10)^{2}x(100x100)/1000x 0.5 gms = 754.28 gms Say 0.008 q				
1301	Bleaching powder	quintal	0.008	1800.00	14.40
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	1.31	645.00	844.95
9999	Sundries including testing of samples	L.S.	9.88	2.12	20.95
	TOTAL				1139.02 W
	Add 1 % Water charges on "W"				11.39
	TOTAL				1150.41 X
	Add GST on "X" (multiplying factor 0.1405)				161.63
	TOTAL				1312.04 Y
	Add 15% CPOH on "Y"				196.81
	TOTAL				1508.84 Z
	Add Cess @ 1% on "Z"				15.09
	Cost of 100 metre				1523.93
	Say				1523.95
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder 3x3.14/4x(100/10)^{2}x(100x100)/1000x 0.5 gms = 1178.57 gms Say 0.012 q				
1301	Bleaching powder	quintal	0.012	1800.00	21.60
	LABOUR				
0116	Fitter (grade 1)	day	0.49	784.00	384.16
0114	Beldar	day	1.64	645.00	1057.80
9999	Sundries including testing of samples	L.S.	13.52	2.12	28.66
	TOTAL				1492.22 W
	Add 1 % Water charges on "W"				14.92
	TOTAL				1507.14 X
	Add GST on "X" (multiplying factor 0.1405)				211.75
	TOTAL				1718.90 Y
	Add 15% CPOH on "Y"				257.83
	TOTAL				1976.73 Z
	Add Cess @ 1% on "Z"				19.77
	Cost of 100 metre				1996.50
	Say				1996.50
	FOR DPA 30% LESS				**1397.55**

18.75.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				

Code	Description	Unit	Quantity	Rate	Amount
	Bleaching powder 3x3.14/4x(125/10)²x(100x100)/1000x 0.5 gms = 1841.52 gms Say 0.018 q				
1301	Bleaching powder	quintal	0.018	1800.00	32.40
	LABOUR				
0116	Fitter (grade 1)	day	0.66	784.00	517.44
0114	Beldar	day	1.97	645.00	1270.65
9999	Sundries including testing of samples	L.S.	17.94	2.12	38.03
	TOTAL				1858.52 W
	Add 1 % Water charges on "W"				18.59
	TOTAL				1877.11 X
	Add GST on "X" (multiplying factor 0.1405)				263.73
	TOTAL				2140.84 Y
	Add 15% CPOH on "Y"				321.13
	TOTAL				2461.97 Z
	Add Cess @ 1% on "Z"				24.62
	Cost of 100 metre				2486.59
	Say				2486.60
	FOR DPA 30% LESS				**1740.62**

18.75.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder 3x3.14/4x(150/10)²x(100x100)/1000x 0.5 gms = 2651 gms Say 0.027 q				
1301	Bleaching powder	quintal	0.027	1800.00	48.60
	LABOUR				
0116	Fitter (grade 1)	day	0.82	784.00	642.88
0114	Beldar	day	2.30	645.00	1483.50
9999	Sundries including testing of samples	L.S.	22.88	2.12	48.51
	TOTAL				2223.49 W
	Add 1 % Water charges on "W"				22.23
	TOTAL				2245.72 X
	Add GST on "X" (multiplying factor 0.1405)				315.52
	TOTAL				2561.24 Y
	Add 15% CPOH on "Y"				384.19
	TOTAL				2945.43 Z
	Add Cess @ 1% on "Z"				29.45
	Cost of 100 metre				2974.89
	Say				2974.90
	FOR DPA 30% LESS				**2082.43**

18.75.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder 3x3.14/4x(200/10)²x(100x100)/1000x 0.5 gms = 4712.39 gms Say 0.047 q				
1301	Bleaching powder	quintal	0.047	1800.00	84.60
	LABOUR				
0116	Fitter (grade 1)	day	1.15	784.00	901.60
0114	Beldar	day	2.95	645.00	1902.75
9999	Sundries including testing of samples	L.S.	31.46	2.12	66.70
	TOTAL				2955.65 W
	Add 1 % Water charges on "W"				29.56
	TOTAL				2985.20 X
	Add GST on "X" (multiplying factor 0.1405)				419.42
	TOTAL				3404.62 Y
	Add 15% CPOH on "Y"				510.69
	TOTAL				3915.32 Z
	Add Cess @ 1% on "Z"				39.15

	Cost of 100 metre				3954.47
	Say				3954.45
	FOR DPA 30% LESS				**2768.115**

18.75.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(250/10)²x(100x100)/1000x				
	0.5 gms = 7363.10 gms Say 0.074 q				
1301	Bleaching powder	quintal	0.074	1800.00	133.20
	LABOUR				
0116	Fitter (grade 1)	day	1.48	784.00	1160.32
0114	Beldar	day	3.61	645.00	2328.45
9999	Sundries including testing of samples	L.S.	40.30	2.12	85.44
	TOTAL				3707.41 W
	Add 1 % Water charges on "W"				37.07
	TOTAL				3744.48 X
	Add GST on "X" (multiplying factor 0.1405)				526.10
	TOTAL				4270.58 Y
	Add 15% CPOH on "Y"				640.59
	TOTAL				4911.17 Z
	Add Cess @ 1% on "Z"				49.11
	Cost of 100 metre				4960.28
	Say				4960.30
	FOR DPA 30% LESS				**3472.21**

18.75.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(300/10)²x(100x100)/1000x				
	0.5 gms = 10602.88 gms Say 0.106 q				
1301	Bleaching powder	quintal	0.106	1800.00	190.80
	LABOUR				
0116	Fitter (grade 1)	day	1.64	784.00	1285.76
0114	Beldar	day	3.94	645.00	2541.30
9999	Sundries including testing of samples	L.S.	44.46	2.12	94.26
	TOTAL				4112.12 W
	Add 1 % Water charges on "W"				41.12
	TOTAL				4153.24 X
	Add GST on "X" (multiplying factor 0.1405)				583.53
	TOTAL				4736.77 Y
	Add 15% CPOH on "Y"				710.51
	TOTAL				5447.28 Z
	Add Cess @ 1% on "Z"				54.47
	Cost of 100 metre				5501.75
	Say				5501.75
	FOR DPA 30% LESS				**3851.225**

18.75.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(350/10)²x(100x100)/1000x				
	0.5 gms = 14431.70 gms Say 0.144 q				
1301	Bleaching powder	quintal	0.144	1800.00	259.20
	LABOUR				
0116	Fitter (grade 1)	day	1.80	784.00	1411.20
0114	Beldar	day	4.27	645.00	2754.15
9999	Sundries including testing of samples	L.S.	48.36	2.12	102.52
	TOTAL				4527.07 W
	Add 1 % Water charges on "W"				45.27

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				4572.34 X
	Add GST on "X" (multiplying factor 0.1405)				642.41
	TOTAL				5214.76 Y
	Add 15% CPOH on "Y"				782.21
	TOTAL				5996.97 Z
	Add Cess @ 1% on "Z"				59.97
	Cost of 100 metre				6056.94
	Say				6056.95
	FOR DPA 30% LESS				**4239.865**

18.75.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3x3.14/4x(400/10)^2x(100x100)/1000x$				
	0.5 gms = 18849.60 gms Say 0.189 q				
1301	Bleaching powder	quintal	0.189	1800.00	340.20
	LABOUR				
0116	Fitter (grade 1)	day	1.97	784.00	1544.48
0114	Beldar	day	4.59	645.00	2960.55
9999	Sundries including testing of samples	L.S.	53.82	2.12	114.10
	TOTAL				4959.33 W
	Add 1 % Water charges on "W"				49.59
	TOTAL				5008.92 X
	Add GST on "X" (multiplying factor 0.1405)				703.75
	TOTAL				5712.68 Y
	Add 15% CPOH on "Y"				856.90
	TOTAL				6569.58 Z
	Add Cess @ 1% on "Z"				65.70
	Cost of 100 metre				6635.27
	Say				6635.25
	FOR DPA 30% LESS				**4644.675**

18.75.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3x3.14/4x(450/10)^2x(100x100)/1000x$				
	0.5 gms = 23856.50 gms Say 0.239 q				
1301	Bleaching powder	quintal	0.239	1800.00	430.20
	LABOUR				
0116	Fitter (grade 1)	day	2.13	784.00	1669.92
0114	Beldar	day	4.92	645.00	3173.40
9999	Sundries including testing of samples	L.S.	58.24	2.12	123.47
	TOTAL				5396.99 W
	Add 1 % Water charges on "W"				53.97
	TOTAL				5450.96 X
	Add GST on "X" (multiplying factor 0.1405)				765.86
	TOTAL				6216.82 Y
	Add 15% CPOH on "Y"				932.52
	TOTAL				7149.34 Z
	Add Cess @ 1% on "Z"				71.49
	Cost of 100 metre				7220.83
	Say				7220.85
	FOR DPA 30% LESS				**5054.595**

18.75.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3x3.14/4x(500/10)^2x(100x100)/1000x$				
	0.5 gms = 29452.40 gms Say 0.295 q				

1301	Bleaching powder	quintal	0.295	1800.00	531.00
	LABOUR				
0116	Fitter (grade 1)	day	2.30	784.00	1803.20
0114	Beldar	day	5.25	645.00	3386.25
9999	Sundries including testing of samples	L.S.	63.7	2.12	135.04
	TOTAL				5855.49 W
	Add 1 % Water charges on "W"				58.55
	TOTAL				5914.05 X
	Add GST on "X" (multiplying factor 0.1405)				830.92
	TOTAL				6744.97 Y
	Add 15% CPOH on "Y"				1011.75
	TOTAL				7756.72 Z
	Add Cess @ 1% on "Z"				77.57
	Cost of 100 metre				7834.29
	Say				7834.30
	FOR DPA 30% LESS				**5484.01**

18.75.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder 3x3.14/4x(600/10)²x(100x100)/1000x 0.5 gms = 42411.5 gms Say 0.424 q				
1301	Bleaching powder	quintal	0.424	1800.00	763.20
	LABOUR				
0116	Fitter (grade 1)	day	2.62	784.00	2054.08
0114	Beldar	day	5.91	645.00	3811.95
9999	Sundries including testing of samples	L.S.	71.37	2.12	151.30
	TOTAL				6780.53 W
	Add 1 % Water charges on "W"				67.81
	TOTAL				6848.34 X
	Add GST on "X" (multiplying factor 0.1405)				962.19
	TOTAL				7810.53 Y
	Add 15% CPOH on "Y"				1171.58
	TOTAL				8982.11 Z
	Add Cess @ 1% on "Z"				89.82
	Cost of 100 metre				9071.93
	Say				9071.95
	FOR DPA 30% LESS				**6350.365**

18.76 Extra for every operation of disinfecting the C.I. main by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, including getting the samples of water tested in the municipal laboratory :

18.76.1 80 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.003	1800.00	5.40
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.49	645.00	316.05
9999	Sundries including testing of samples	L.S.	4.42	2.12	9.37
	TOTAL				417.06 W
	Add 1 % Water charges on "W"				4.17
	TOTAL				421.23 X
	Add GST on "X" (multiplying factor 0.1405)				59.18
	TOTAL				480.41 Y
	Add 15% CPOH on "Y"				72.06
	TOTAL				552.48 Z
	Add Cess @ 1% on "Z"				5.52
	Cost of 100 metre				558.00
	Say				558.00

	FOR DPA 30% LESS				**390.6**

18.76.2 100 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.004	1800.00	7.20
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.57	645.00	367.65
9999	Sundries including testing of samples	L.S.	4.42	2.12	9.37
	TOTAL				509.66 W
	Add 1 % Water charges on "W"				5.10
	TOTAL				514.76 X
	Add GST on "X" (multiplying factor 0.1405)				72.32
	TOTAL				587.08 Y
	Add 15% CPOH on "Y"				88.06
	TOTAL				675.14 Z
	Add Cess @ 1% on "Z"				6.75
	Cost of 100 metre				681.89
	Say				681.90
	FOR DPA 30% LESS				**477.33**

18.76.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.006	1800.00	10.80
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0114	Beldar	day	0.66	645.00	425.70
9999	Sundries including testing of samples	L.S.	5.46	2.12	11.58
	TOTAL				620.56 W
	Add 1 % Water charges on "W"				6.21
	TOTAL				626.76 X
	Add GST on "X" (multiplying factor 0.1405)				88.06
	TOTAL				714.82 Y
	Add 15% CPOH on "Y"				107.22
	TOTAL				822.04 Z
	Add Cess @ 1% on "Z"				8.22
	Cost of 100 metre				830.26
	Say				830.25
	FOR DPA 30% LESS				**581.175**

18.76.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
1301 0116	Details of cost for 100 metres MATERIAL Bleaching powder LABOUR Fitter (grade 1)	quintal day	0.009 0.27	1800.00 784.00	16.20 211.68
0114	Beldar	day	0.74	645.00	477.30
9999	Sundries including testing of samples	L.S.	7.15	2.12	15.16
	TOTAL				720.34 W
	Add 1 % Water charges on "W"				7.20
	TOTAL				727.54 X
	Add GST on "X" (multiplying factor 0.1405)				102.22
	TOTAL				829.76 Y
	Add 15% CPOH on "Y"				124.46
	TOTAL				954.23 Z
	Add Cess @ 1% on "Z"				9.54
	Cost of 100 metre				963.77
	Say				963.75
	FOR DPA 30% LESS				**674.625**

18.76.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				

1301	Bleaching powder	quintal	0.016	1800.00	28.80
	LABOUR				
0116	Fitter (grade 1)	day	0.58	784.00	454.72
0114	Beldar	day	0.90	645.00	580.50
9999	Sundries including testing of samples	L.S.	9.88	2.12	20.95
	TOTAL				1084.97 W
	Add 1 % Water charges on "W"				10.85
	TOTAL				1095.82 X
	Add GST on "X" (multiplying factor 0.1405)				153.96
	TOTAL				1249.78 Y
	Add 15% CPOH on "Y"				187.47
	TOTAL				1437.24 Z
	Add Cess @ 1% on "Z"				14.37
	Cost of 100 metre				1451.62
	Say				1451.60
	FOR DPA 30% LESS				**1016.12**

18.76.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
1301	Details of cost for 100 metres MATERIAL	quintal	0.025	1800.00	45.00
0116	Bleaching powder LABOUR	day day	0.60	784.00	470.40
0114	Fitter (grade 1) Beldar		1.10	645.00	709.50
9999	Sundries including testing of samples	L.S.	10.79	2.12	22.87
	TOTAL				1247.77 W
	Add 1 % Water charges on "W"				12.48
	TOTAL				1260.25 X
	Add GST on "X" (multiplying factor 0.1405)				177.07
	TOTAL				1437.32 Y
	Add 15% CPOH on "Y"				215.60
	TOTAL				1652.92 Z
	Add Cess @ 1% on "Z"				16.53
	Cost of 100 metre				1669.44
	Say				1669.45
	FOR DPA 30% LESS				**1168.615**

18.76.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.035	1800.00	63.00
	LABOUR				
0116	Fitter (grade 1)	day	0.60	784.00	470.40
0114	Beldar	day	1.30	645.00	838.50
9999	Sundries including testing of samples	L.S.	13.52	2.12	28.66
	TOTAL				1400.56 W
	Add 1 % Water charges on "W"				14.01
	TOTAL				1414.57 X
	Add GST on "X" (multiplying factor 0.1405)				198.75
	TOTAL				1613.31 Y
	Add 15% CPOH on "Y"				242.00
	TOTAL				1855.31 Z
	Add Cess @ 1% on "Z"				18.55
	Cost of 100 metre				1873.87
	Say				1873.85
	FOR DPA 30% LESS				**1311.695**

18.76.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
1301	Details of cost for 100 metres MATERIAL	quintal	0.048	1800.00	86.40
0116	Bleaching powder LABOUR	day day	0.70	784.00	548.80
0114	Fitter (grade 1) Beldar		1.50	645.00	967.50

18.76.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.063	1800.00	113.40

Code	Description	Unit	Quantity	Rate	Amount
	LABOUR				
0116	Fitter (grade 1)	day	0.80	784.00	627.20
0114	Beldar	day	1.70	645.00	1096.50
9999	Sundries including testing of samples	L.S.	17.94	2.12	38.03
	TOTAL				1875.13 W
	Add 1 % Water charges on "W"				18.75
	TOTAL				1893.88 X
	Add GST on "X" (multiplying factor 0.1405)				266.09
	TOTAL				2159.97 Y
	Add 15% CPOH on "Y"				324.00
	TOTAL				2483.97 Z
	Add Cess @ 1% on "Z"				24.84
	Cost of 100 metre				2508.81
	Say				2508.80
	FOR DPA 30% LESS				**1756.16**

18.76.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
1301 0116 0114	Details of cost for 100 metres MATERIAL Bleaching powder LABOUR Fitter (grade 1) Beldar	quintal day day	0.08 0.90 1.90	1800.00 784.00 645.00	144.00 705.60 1225.50

18.76.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.098	1800.00	176.40
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0114	Beldar	day	2.10	645.00	1354.50
9999	Sundries including testing of samples	L.S.	23.27	2.12	49.33
	TOTAL				2364.23 W
	Add 1 % Water charges on "W"				23.64
	TOTAL				2387.87 X
	Add GST on "X" (multiplying factor 0.1405)				335.50
	TOTAL				2723.37 Y
	Add 15% CPOH on "Y"				408.51
	TOTAL				3131.88 Z
	Add Cess @ 1% on "Z"				31.32
	Cost of 100 metre				3163.20
	Say				3163.20
	FOR DPA 30% LESS				**2214.24**

18.76.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
1301 0116 0114	Details of cost for 100 metres MATERIAL Bleaching powder LABOUR Fitter (grade 1) Beldar	quintal day day	0.141 1.20 2.50	1800.00 784.00 645.00	253.80 940.80 1612.50

18.77 Dismantling old C.I. pipes including excavation and refilling trenches after taking out the pipes, breaking lead caulked joints, melting of lead and making into blocks, including stacking of pipes at site lead up to 50 metre:

18.77.1 80 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 40.26 m or 11 nos. joints.				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	1x40.26x55x0.75 m=16.61 cum				
	Deduct for pipe 1x40.26x3.14/ 4x(0.098)² =(-) 0.30 cum				
	Total= 16.31 cum				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	16.31	286.85	4678.52 A
2.25	(Rate as per item No.2.25 of				

	SH Earth work)	cum	16.31	253.95	4141.92 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	0.373	500.00	186.50
0771	Kerosene oil	litre	0.379	50.00	18.95
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	0.50	714.00	357.00
0114	Beldar	day	4.00	645.00	2580.00
9988	Sundries and carriage	L.S.	53.82	2.12	114.10
	TOTAL				12077.00 W
	Add 1 % Water charges on "W-A"				32.57
	TOTAL				12109.56 X
	Add GST on "X-A" (multiplying factor 0.1405)				462.12
	TOTAL				12571.68 Y
	Add 15% CPOH on "Y-A"				562.69
	TOTAL				13134.37 Z
	Add Cess @ 1% on "Z-A"				43.14
	Cost of 40.26 metre				13177.51
	Cost of one metre				327.31
	Say				327.30
	FOR DPA 30% LESS				**229.11**

18.77.2 100 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 40.26 m or 11 nos. joints.				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	1x40.26x55x0.75 m=16.61 cum				
	Deduct for pipe 1x40.26x3.14/ 4x(0.118)² =(-) 0.44 cum				
	Total= 16.17 cum				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	16.17	286.85	4638.36 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	16.17	253.95	4106.37 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	0.466	500.00	233.00
0771	Kerosene oil	litre	0.379	50.00	18.95
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	0.63	714.00	449.82
0114	Beldar	day	4.50	645.00	2902.50
9988	Sundries and carriage	L.S.	53.82	2.12	114.10
	TOTAL				12463.10 W
	Add 1 % Water charges on "W-A"				37.18
	TOTAL				12500.29 X
	Add GST on "X-A" (multiplying factor 0.1405)				527.66
	TOTAL				13027.94 Y
	Add 15% CPOH on "Y-A"				642.48
	TOTAL				13670.42 Z
	Add Cess @ 1% on "Z-A"				49.26
	Cost of 40.26 metre				13719.68
	Cost of one metre				340.78
	Say				340.80
	FOR DPA 30% LESS				**238.56**

18.77.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount

Code	Description	Unit	Quantity	Rate	Amount
2.8.1	Details of cost for 40.26 m or 11 nos. joints. Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x55x0.75 m=16.61 cum Deduct for pipe 1x40.26x3.14/ 4x(0.144)² =(-) 0.65 cum Total= 15.96 cum (Rate as per item no. 2.8.1 of SH: Earth work)	cum	15.96	286.85	4578.13 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	15.96	253.95	4053.04 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	0.559	500.00	279.50
0771	Kerosene oil	litre	0.568	50.00	28.40
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	0.75	714.00	535.50
0114	Beldar	day	5.00	645.00	3225.00
9988	Sundries and carriage	L.S.	53.82	2.12	114.10
	TOTAL				12813.67 W
	Add 1 % Water charges on "W-A"				41.82
	TOTAL				12855.49 X
	Add GST on "X-A" (multiplying factor 0.1405)				593.52
	TOTAL				13449.01 Y
	Add 15% CPOH on "Y-A"				722.68
	TOTAL				14171.68 Z
	Add Cess @ 1% on "Z-A"				55.41
	Cost of 40.26 metre				14227.09
	Cost of one metre				353.38
	Say				353.40
	FOR DPA 30% LESS				**247.38**

18.77.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
2.8.1 2.25 0761 0771 0117 0114	Details of cost for 40.26 m or 11 nos. joints. Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x55x0.75 m=16.61 cum Deduct for pipe 1x40.26x3.14/ 4x(0.17)² =(-) 0.91 cum Total= 15.70 cum (Rate as per item no. 2.8.1 of SH: Earth work) (Rate as per item No.2.25 of SH Earth work) Breaking lead caulked joints, blocks and stacking MATERIAL Fuel wood Kerosene oil LABOUR Assistant Fitter or 2nd class Fitter Beldar	cum cum quintal litre day day	15.70 15.70 0.653 0.568 0.88 5.50	286.85 253.95 500.00 50.00 714.00 645.00	4503.55 A 3987.02 A 326.50 28.40 628.32 3547.50
9988	Sundries and carriage	L.S.	67.21	2.12	142.49
	TOTAL				13163.77 W
	Add 1 % Water charges on "W-A"				46.73
	TOTAL				13210.50 X
	Add GST on "X-A" (multiplying factor 0.1405)				663.15
	TOTAL				13873.65 Y
	Add 15% CPOH on "Y-A"				807.46
	TOTAL				14681.11 Z
	Add Cess @ 1% on "Z-A"				61.91
	Cost of 40.26 metre				14743.02
	Cost of one metre				366.20
	Say				366.20
	FOR DPA 30% LESS				**256.34**

18.77.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 40.26 m or 11 nos. joints. Earth work in excavation for dismantling pipes including refilling of excavated earth				

	1x40.26x60x0.75 m=18.12 cum Deduct for pipe 1x40.26x3.14/ 4x(0.222)² =(-) 1.56 cum Total= 16.56 cum				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	16.56	286.85	4750.24 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	16.56	253.95	4205.41 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	0.84	500.00	420.00
0771	Kerosene oil	litre	0.7576	50.00	37.88
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	1.10	714.00	785.40
0114	Beldar	day	6.50	645.00	4192.50
9988	Sundries and carriage	L.S.	67.21	2.12	142.49
	TOTAL				14533.91 W
	Add 1 % Water charges on "W-A"				55.78
	TOTAL				14589.70 X
	Add GST on "X-A" (multiplying factor 0.1405)				791.58
	TOTAL				15381.28 Y
	Add 15% CPOH on "Y-A"				963.84
	TOTAL				16345.12 Z
	Add Cess @ 1% on "Z-A"				73.89
	Cost of 40.26 metre				16419.02
	Cost of one metre				407.82
	Say				407.80
	FOR DPA 30% LESS				**285.46**

18.77.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 40.26 m or 11 nos. joints. Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x.65x0.75 m=19.63 cum Deduct for pipe 1x40.26x3.14/ 4x(0.274)² =(-) 2.37 cum Total= 17.26 cum				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	17.26	286.85	4951.03 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	17.26	253.95	4383.18 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	1.026	500.00	513.00
0771	Kerosene oil	litre	1.1365	50.00	56.83
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	1.30	714.00	928.20
0114	Beldar	day	7.50	645.00	4837.50
9988	Sundries and carriage	L.S.	80.73	2.12	171.15
	TOTAL				15840.88 W
	Add 1 % Water charges on "W-A"				65.07
	TOTAL				15905.95 X
	Add GST on "X-A" (multiplying factor 0.1405)				923.33
	TOTAL				16829.28 Y
	Add 15% CPOH on "Y-A"				1124.26
	TOTAL				17953.54 Z
	Add Cess @ 1% on "Z-A"				86.19
	Cost of 40.26 metre				18039.73
	Cost of one metre				448.08

	Say				448.10
	FOR DPA 30% LESS				**313.67**

18.77.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
2.8.1	Details of cost for 40.26 m or 11 nos. joints. Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x.70x0.75 m=21.14 cum Deduct for pipe 1x40.26x3.14/ 4x(0.326)² =(-) 3.36 cum Total= 17.79 cum (Rate as per item no. 2.8.1 of SH: Earth work)	cum	17.79	286.85	5103.06 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	17.79	253.95	4517.77 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	1.12	500.00	560.00
0771	Kerosene oil	litre	1.515	50.00	75.75
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	1.50	714.00	1071.00
0114	Beldar	day	8.50	645.00	5482.50
9988	Sundries and carriage	L.S.	94.12	2.12	199.53
	TOTAL				17009.62 W
	Add 1 % Water charges on "W-A"				73.89
	TOTAL				17083.50 X
	Add GST on "X-A" (multiplying factor 0.1405)				1048.51
	TOTAL				18132.01 Y
	Add 15% CPOH on "Y-A"				1276.68
	TOTAL				19408.69 Z
	Add Cess @ 1% on "Z-A"				97.88
	Cost of 40.26 metre				19506.56
	Cost of one metre				484.51
	Say				484.50
	FOR DPA 30% LESS				**339.15**

18.77.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
2.8.1 2.25 0761 0771 0117 0114	Details of cost for 40.26 m or 11 nos. joints. Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x.75x0.75 m=22.65 cum Deduct for pipe 1x40.26x3.14/ 4x(0.378)² =(-) 4.51 cum Total= 18.14 cum (Rate as per item no. 2.8.1 of SH: Earth work) (Rate as per item No.2.25 of SH Earth work) Breaking lead caulked joints, blocks and stacking MATERIAL Fuel wood Kerosene oil LABOUR Assistant Fitter or 2nd class Fitter Beldar	cum cum quintal litre day day	18.14 18.14 1.213 1.515 1.75 9.50	286.85 253.95 500.00 50.00 714.00 645.00	5203.46 A 4606.65 A 606.50 75.75 1249.50 6127.50
9988	Sundries and carriage	L.S.	107.64	2.12	228.20
	TOTAL				18097.56 W
	Add 1 % Water charges on "W-A"				82.87
	TOTAL				18180.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				1176.03
	TOTAL				19356.46 Y
	Add 15% CPOH on "Y-A"				1431.95
	TOTAL				20788.42 Z
	Add Cess @ 1% on "Z-A"				109.78
	Cost of 40.26 metre				20898.20
	Cost of one metre				519.08
	Say				519.10
	FOR DPA 30% LESS				**363.37**

18.77.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 40.26 m or				

Code	Description	Unit	Quantity	Rate	Amount
	11 nos. joints.				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	1x40.26x.80x0.75 m=24.16 cum				
	Deduct for pipe 1x40.26x3.14/ 4x(0.429)² =(-) 5.93 cum				
	Total= 18.23 cum				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	18.23	286.85	5229.28 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.23	253.95	4629.51 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	1.306	500.00	653.00
0771	Kerosene oil	litre	1.894	50.00	94.70
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	2.00	714.00	1428.00
0114	Beldar	day	10.50	645.00	6772.50
9988	Sundries and carriage	L.S.	121.03	2.12	256.58
	TOTAL				19063.57 W
	Add 1 % Water charges on "W-A"				92.05
	TOTAL				19155.62 X
	Add GST on "X-A" (multiplying factor 0.1405)				1306.20
	TOTAL				20461.82 Y
	Add 15% CPOH on "Y-A"				1590.46
	TOTAL				22052.28 Z
	Add Cess @ 1% on "Z-A"				121.93
	Cost of 40.26 metre				22174.21
	Cost of one metre				550.78
	Say				550.80
	FOR DPA 30% LESS				**385.56**

18.77.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 40.26 m or 11 nos. joints.				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	1x40.26x.85x0.75 m=25.67 cum				
	Deduct for pipe 1x40.26x3.14/ 4x(0.48)² =(-) 7.29 cum				
	Total= 18.38 cum				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	18.38	286.85	5272.30 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.38	253.95	4667.60 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	1.40	500.00	700.00
0771	Kerosene oil	litre	2.273	50.00	113.65
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	2.25	714.00	1606.50
0114	Beldar	day	11.50	645.00	7417.50
9988	Sundries and carriage	L.S.	134.55	2.12	285.25
	TOTAL				20062.80 W
	Add 1 % Water charges on "W-A"				101.23
	TOTAL				20164.03 X
	Add GST on "X-A" (multiplying factor 0.1405)				1436.49
	TOTAL				21600.52 Y
	Add 15% CPOH on "Y-A"				1749.09

	TOTAL				23349.61 Z
	Add Cess @ 1% on "Z-A"				134.10
	Cost of 40.26 metre				23483.71
	Cost of one metre				583.30
	Say				583.30
	FOR DPA 30% LESS				**408.31**

18.77.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
2.8.1	Details of cost for 40.26 m or 11 nos. joints. Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x.90x0.75 m=27.18 cum Deduct for pipe 1x40.26x3.14/ 4x(0.532)² =(-) 8.94 cum Total= 18.24 cum (Rate as per item no. 2.8.1 of SH: Earth work)	cum	18.24	286.85	5232.14 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.24	253.95	4632.05 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	1.492	500.00	746.00
0771	Kerosene oil	litre	2.652	50.00	132.60
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	2.50	714.00	1785.00
0114	Beldar	day	12.50	645.00	8062.50
9988	Sundries and carriage	L.S.	147.94	2.12	313.63
	TOTAL				20903.92 W
	Add 1 % Water charges on "W-A"				110.40
	TOTAL				21014.32 X
	Add GST on "X-A" (multiplying factor 0.1405)				1566.59
	TOTAL				22580.92 Y
	Add 15% CPOH on "Y-A"				1907.51
	TOTAL				24488.42 Z
	Add Cess @ 1% on "Z-A"				146.24
	Cost of 40.26 metre				24634.67
	Cost of one metre				611.89
	Say				611.90
	FOR DPA 30% LESS				**428.33**

18.77.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
2.8.1 2.25 0761 0771 0117 0114	Details of cost for 40.26 m or 11 nos. joints. Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x1.00x0.75 m=30.20 cum Deduct for pipe 1x40.26x3.14/ 4x(0.635)² =(-) 12.76 cum Total= 17.44 cum (Rate as per item no. 2.8.1 of SH: Earth work) (Rate as per item No.2.25 of SH Earth work) Breaking lead caulked joints, blocks and stacking MATERIAL Fuel wood Kerosene oil LABOUR Assistant Fitter or 2nd class Fitter Beldar	cum cum quintal litre day day	17.44 17.44 1.68 3.41 3.00 14.50	286.85 253.95 500.00 50.00 714.00 645.00	5002.66 A 4428.89 A 840.00 170.50 2142.00 9352.50
9988	Sundries and carriage	L.S.	174.85	2.12	370.68
	TOTAL				22307.23 W
	Add 1 % Water charges on "W-A"				128.76
	TOTAL				22435.99 X
	Add GST on "X-A" (multiplying factor 0.1405)				1827.12
	TOTAL				24263.11 Y
	Add 15% CPOH on "Y-A"				2224.73
	TOTAL				26487.85 Z
	Add Cess @ 1% on "Z-A"				170.56
	Cost of 40.26 metre				26658.41
	Cost of one metre				662.16
	Say				662.15

	FOR DPA 30% LESS				463.505

18.78 **Labour for cutting C.I. pipe with steel saw.**
18.78.1 **80 mm diameter C.I. pipe**

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.06	784.00	47.04
0114	Beldar	day	0.06	645.00	38.70
9999	Sundries	L.S.	1.82	2.12	3.86
	TOTAL				89.60 W
	Add 1 % Water charges on "W"				0.90
	TOTAL				90.49 X
	Add GST on "X" (multiplying factor 0.1405)				12.71
	TOTAL				103.21 Y
	Add 15% CPOH on "Y"				15.48
	TOTAL				118.69 Z
	Add Cess @ 1% on "Z"				1.19
	Cost of each cut				119.88
	Say				119.90
	FOR DPA 30% LESS				**83.93**

18.78.2 **100 mm diameter C.I. pipe**

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.08	645.00	51.60
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				120.11 W
	Add 1 % Water charges on "W"				1.20
	TOTAL				121.31 X
	Add GST on "X" (multiplying factor 0.1405)				17.04
	TOTAL				138.35 Y
	Add 15% CPOH on "Y"				20.75
	TOTAL				159.11 Z
	Add Cess @ 1% on "Z"				1.59
	Cost of each cut				160.70
	Say				160.70
	FOR DPA 30% LESS				**112.49**

18.78.3 **125 mm diameter C.I. pipe**

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
9999	Sundries	L.S.	4.42	2.12	9.37
	TOTAL				166.56 W
	Add 1 % Water charges on "W"				1.67
	TOTAL				168.23 X
	Add GST on "X" (multiplying factor 0.1405)				23.64
	TOTAL				191.86 Y
	Add 15% CPOH on "Y"				28.78
	TOTAL				220.64 Z
	Add Cess @ 1% on "Z"				2.21
	Cost of each cut				222.85
	Say				222.85
	FOR DPA 30% LESS				**155.995**

18.78.4 **150 mm diameter C.I. pipe**

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.15	784.00	117.60
0114	Beldar	day	0.15	645.00	96.75

Code	Description	Unit	Quantity	Rate	Amount
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				225.65 W
	Add 1 % Water charges on "W"				2.26
	TOTAL				227.91 X
	Add GST on "X" (multiplying factor 0.1405)				32.02
	TOTAL				259.93 Y
	Add 15% CPOH on "Y"				38.99
	TOTAL				298.92 Z
	Add Cess @ 1% on "Z"				2.99
	Cost of each cut				301.91
	Say				301.90
	FOR DPA 30% LESS				**211.33**

18.78.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.20	784.00	156.80
0114	Beldar	day	0.20	645.00	129.00
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				300.96 W
	Add 1 % Water charges on "W"				3.01
	TOTAL				303.97 X
	Add GST on "X" (multiplying factor 0.1405)				42.71
	TOTAL				346.68 Y
	Add 15% CPOH on "Y"				52.00
	TOTAL				398.68 Z
	Add Cess @ 1% on "Z"				3.99
	Cost of each cut				402.66
	Say				402.65
	FOR DPA 30% LESS				**281.855**

18.78.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0114	Beldar	day	0.25	645.00	161.25
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				374.34 W
	Add 1 % Water charges on "W"				3.74
	TOTAL				378.08 X
	Add GST on "X" (multiplying factor 0.1405)				53.12
	TOTAL				431.20 Y
	Add 15% CPOH on "Y"				64.68
	TOTAL				495.88 Z
	Add Cess @ 1% on "Z"				4.96
	Cost of each cut				500.84
	Say				500.85
	FOR DPA 30% LESS				**350.595**

18.78.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.30	784.00	235.20
0114	Beldar	day	0.30	645.00	193.50
9999	Sundries	L.S.	9.88	2.12	20.95
	TOTAL				449.65 W
	Add 1 % Water charges on "W"				4.50
	TOTAL				454.14 X
	Add GST on "X" (multiplying factor 0.1405)				63.81
	TOTAL				517.95 Y
	Add 15% CPOH on "Y"				77.69

	TOTAL				595.64 Z
	Add Cess @ 1% on "Z"				5.96
	Cost of each cut				601.60
	Say				601.60
	FOR DPA 30% LESS				**421.12**

18.78.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.35	784.00	274.40
0114	Beldar	day	0.35	645.00	225.75
9999	Sundries	L.S.	10.79	2.12	22.87
	TOTAL				523.02 W
	Add 1 % Water charges on "W"				5.23
	TOTAL				528.26 X
	Add GST on "X" (multiplying factor 0.1405)				74.22
	TOTAL				602.47 Y
	Add 15% CPOH on "Y"				90.37
	TOTAL				692.85 Z
	Add Cess @ 1% on "Z"				6.93
	Cost of each cut				699.77
	Say				699.75
	FOR DPA 30% LESS				**489.825**

18.78.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.40	784.00	313.60
0114	Beldar	day	0.40	645.00	258.00
9999	Sundries	L.S.	12.48	2.12	26.46
	TOTAL				598.06 W
	Add 1 % Water charges on "W"				5.98
	TOTAL				604.04 X
	Add GST on "X" (multiplying factor 0.1405)				84.87
	TOTAL				688.91 Y
	Add 15% CPOH on "Y"				103.34
	TOTAL				792.24 Z
	Add Cess @ 1% on "Z"				7.92
	Cost of each cut				800.16
	Say				800.15
	FOR DPA 30% LESS				**560.105**

18.78.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.45	784.00	352.80
0114	Beldar	day	0.45	645.00	290.25
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				671.71 W
	Add 1 % Water charges on "W"				6.72
	TOTAL				678.43 X
	Add GST on "X" (multiplying factor 0.1405)				95.32
	TOTAL				773.75 Y
	Add 15% CPOH on "Y"				116.06
	TOTAL				889.81 Z
	Add Cess @ 1% on "Z"				8.90
	Cost of each cut				898.71
	Say				898.70
	FOR DPA 30% LESS				**629.09**

18.78.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one cut.				

Code	Description	Unit	Quantity	Rate	Amount
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	15.21	2.12	32.25
	TOTAL				746.75 W
	Add 1 % Water charges on "W"				7.47
	TOTAL				754.21 X
	Add GST on "X" (multiplying factor 0.1405)				105.97
	TOTAL				860.18 Y
	Add 15% CPOH on "Y"				129.03
	TOTAL				989.21 Z
	Add Cess @ 1% on "Z"				9.89
	Cost of each cut				999.10
	Say				999.10
	FOR DPA 30% LESS				**699.37**

18.78.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.60	784.00	470.40
0114	Beldar	day	0.60	645.00	387.00
9999	Sundries	L.S.	16.12	2.12	34.17
	TOTAL				891.57 W
	Add 1 % Water charges on "W"				8.92
	TOTAL				900.49 X
	Add GST on "X" (multiplying factor 0.1405)				126.52
	TOTAL				1027.01 Y
	Add 15% CPOH on "Y"				154.05
	TOTAL				1181.06 Z
	Add Cess @ 1% on "Z"				11.81
	Cost of each cut				1192.87
	Say				1192.85
	FOR DPA 30% LESS				**834.995**

18.79 Providing & fixing chrome plated brass battery based infrared sensor operated pillar cock, having foam flow technology.

18.79.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
3327	15 mm Battery Based Sensor Pillar Cock	each	1.00	6000.00	6000.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				6017.09 W
	Add 1 % Water charges on "W"				60.17
	TOTAL				6077.26 X
	Add GST on "X" (multiplying factor 0.1405)				853.85
	TOTAL				6931.11 Y
	Add 15% CPOH on "Y"				1039.67
	TOTAL				7970.78 Z
	Add Cess @ 1% on "Z"				79.71
	Cost of one no.				8050.49
	Say				8050.50
	FOR DPA 30% LESS				**5635.35**

18.80 Providing and fixing Stainless Steel pipe and fitting of grade AISI 304 as per JIS standard 3448 complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00 m spacing including cutting and making good the walls including testing of joints complete as per direction of Engineer- in-charge. (The pipe length inserted in the fitting shall not be measured for payment)

Internal work - Exposed on wall

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8779	SS pipe 304 grades with press fit				

Code	Description	Unit	Quantity	Rate	Amount
	technology as per JIS 3448 standard				
	15.88 mm outer dia	metre	10.00	140.00	1400.00 P
2272	Carriage of Stainless Steel pipes				
	below 100 mm dia	tonne	0.00301	145.72	0.44
	Add 3% for pipe inserted into fitting				
	and wastage etc. on P				42.00
	3xP / 100				
9999	Cement, sand and grit	L.S.	2.73	2.12	5.79
	Add 2% for special T&P and sundries				
	etc. on P				28.00
	2 xP / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2631.89 W
	Add 1 % Water charges on "W"				26.32
	TOTAL				2658.21 X
	Add GST on "X" (multiplying				
	factor 0.1405)				373.48
	TOTAL				3031.68 Y
	Add 15% CPOH on "Y"				454.75
	TOTAL				3486.44 Z
	Add Cess @ 1% on "Z"				34.86
	Cost of 10 metre				3521.30
	Cost of 1 metre				352.13
	Say				352.15
	FOR DPA 30% LESS				**246.505**
18.80.2	**22.22 mm outer dia Pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	MATERIAL				
8780	SS pipe 304 grades with press fit				
	technology as per JIS 3448 standard				
	22.22 mm outer dia	metre	10.00	250.00	2500.00 P
2272	Carriage of Stainless Steel pipes				
	below 100 mm dia	tonne	0.00529	145.72	0.77
	Add 3% for pipe inserted into fitting				
	and wastage etc. on P				75.00
	3 xP/ 100				
9999	Cement, sand and grit	L.S.	2.73	2.12	5.79
	Add 2% for special T&P and sundries				
	etc. on P				50.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				3787.22 W
	Add 1 % Water charges on "W"				37.87
	TOTAL				3825.09 X
	Add GST on "X" (multiplying				
	factor 0.1405)				537.43
	TOTAL				4362.52 Y
	Add 15% CPOH on "Y"				654.38
	TOTAL				5016.89 Z
	Add Cess @ 1% on "Z"				50.17
	Cost of 10 metre				5067.06
	Cost of 1 metre				506.71
	Say				506.70
	FOR DPA 30% LESS				**354.69**
18.80.3	**28.58 mm outer dia Pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	MATERIAL				

Code	Description	Unit	Quantity	Rate	Amount
8781	SS pipe 304 grades with press fit technology as per JIS 3448 standard 28.58 mm outer dia	metre	10.00	310.00	3100.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00687	145.72	1.00
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100				93.00
9999	Cement, sand and grit	L.S.	4.16	2.12	8.82
	Add 2% for special T&P and sundries etc. on P 2xP/ 100				62.00
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4420.48 W
	Add 1 % Water charges on "W"				44.20
	TOTAL				4464.69 X
	Add GST on "X" (multiplying factor 0.1405)				627.29
	TOTAL				5091.97 Y
	Add 15% CPOH on "Y"				763.80
	TOTAL				5855.77 Z
	Add Cess @ 1% on "Z"				58.56
	Cost of 10 metre				5914.33
	Cost of 1 metre				591.43
	Say				591.45
	FOR DPA 30% LESS				**414.015**

18.80.4 34 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8782	SS pipe 304 grades with press fit technology as per JIS 3448 standard 34.00 mm outer dia	metre	10.00	439.50	4395.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.0098	145.72	1.43
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100				131.85
9999	Cement, sand and grit	L.S.	4.16	2.12	8.82
	Add 2% for special T&P and sundries etc. on P 2xP/ 100				87.90
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				5780.66 W
	Add 1 % Water charges on "W"				57.81
	TOTAL				5838.46 X
	Add GST on "X" (multiplying factor 0.1405)				820.30
	TOTAL				6658.77 Y
	Add 15% CPOH on "Y"				998.82
	TOTAL				7657.58 Z
	Add Cess @ 1% on "Z"				76.58
	Cost of 10 metre				7734.16
	Cost of 1 metre				773.42
	Say				773.40
	FOR DPA 30% LESS				**541.38**

18.80.5 42.70 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 10 metre				
	MATERIAL				
8783	SS pipe 304 grades with press fit technology as per JIS 3448 standard 42.70 mm outer dia	metre	10.00	450.00	4500.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.0124	145.72	1.81
	Add 3% for pipe inserted into fitting and wastage etc. on P				135.00
	3xP/ 100				
9999	Cement, sand and grit	L.S.	5.33	2.12	11.30
	Add 2% for special T&P and sundries etc. on P				90.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				5893.77 W
	Add 1 % Water charges on "W"				58.94
	TOTAL				5952.70 X
	Add GST on "X" (multiplying factor 0.1405)				836.35
	TOTAL				6789.06 Y
	Add 15% CPOH on "Y"				1018.36
	TOTAL				7807.42 Z
	Add Cess @ 1% on "Z"				78.07
	Cost of 10 metre				7885.49
	Cost of 1 metre				788.55
	Say				788.55
	FOR DPA 30% LESS				**551.985**

18.80.6 48.60 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8701	SS pipe 304 grades with press fit technology as per JIS 3448 standard 48.60 mm outer dia	metre	10.00	620.00	6200.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.0142	145.72	2.07
	Add 3% for pipe inserted into fitting and wastage etc. on P				186.00
	3xP/ 100				
9999	Cement, sand and grit	L.S.	5.33	2.12	11.30
	Add 2% for special T&P and sundries etc. on P				124.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				7679.03 W
	Add 1 % Water charges on "W"				76.79
	TOTAL				7755.82 X
	Add GST on "X" (multiplying factor 0.1405)				1089.69
	TOTAL				8845.51 Y
	Add 15% CPOH on "Y"				1326.83
	TOTAL				10172.34 Z
	Add Cess @ 1% on "Z"				101.72
	Cost of 10 metre				10274.06
	Cost of 1 metre				1027.41
	Say				1027.40
	FOR DPA 30% LESS				**719.18**

18.85A Providing and fixing Stainless Steel pipe and fitting of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00 m spacing including cutting and making good the walls including testing of joints complete as per direction of Engineer-in-charge. (The pipe length inserted in the fitting shall not be measured for payment)

Internal work - Exposed on wall 18.85A.1 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
3862	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 15 mm outer dia	metre	10.00	310.00	3100.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.003472	145.72	0.51
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP / 100				93.00
9999	Cement, sand and grit	L.S.	2.73	2.12	5.79
	Add 2% for special T&P and sundries etc. on P 2 xP / 100				62.00
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4416.95 W
	Add 1 % Water charges on "W"				44.17
	TOTAL				4461.12 X
	Add GST on "X" (multiplying factor 0.1405)				626.79
	TOTAL				5087.91 Y
	Add 15% CPOH on "Y"				763.19
	TOTAL				5851.10 Z
	Add Cess @ 1% on "Z"				58.51
	Cost of 10 metre				5909.61
	Cost of 1 metre				590.96
	Say				590.95
	FOR DPA 30% LESS				**413.665**

18.85A.2 22 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre MATERIAL				
3863	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 22 mm outer dia	metre	10.00	500.00	5000.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00619	145.72	0.90
	Add 3% for pipe inserted into fitting and wastage etc. on P 3 xP/ 100				150.00
9999	Cement, sand and grit	L.S.	2.73	2.12	5.79
	Add 2% for special T&P and sundries etc. on P 2xP/ 100				100.00
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				6412.35 W
	Add 1 % Water charges on "W"				64.12
	TOTAL				6476.47 X
	Add GST on "X" (multiplying factor 0.1405)				909.94

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				7386.42 Y
	Add 15% CPOH on "Y"				1107.96
	TOTAL				8494.38 Z
	Add Cess @ 1% on "Z"				84.94
	Cost of 10 metre				8579.32
	Cost of 1 metre				857.93
	Say				857.95
	FOR DPA 30% LESS				**600.565**

18.85A.3 28 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
3864	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 28 mm outer dia	metre	10.00	650.00	6500.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00798	145.72	1.16
	Add 3% for pipe inserted into fitting and wastage etc. on P				195.00
	3xP/ 100				
9999	Cement, sand and grit	L.S.	4.16	2.12	8.82
	Add 2% for special T&P and sundries etc. on P				130.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				7990.64 W
	Add 1 % Water charges on "W"				79.91
	TOTAL				8070.55 X
	Add GST on "X" (multiplying factor 0.1405)				1133.91
	TOTAL				9204.46 Y
	Add 15% CPOH on "Y"				1380.67
	TOTAL				10585.13 Z
	Add Cess @ 1% on "Z"				105.85
	Cost of 10 metre				10690.98
	Cost of 1 metre				1069.10
	Say				1069.10
	FOR DPA 30% LESS				**748.37**

18.85A.4 35 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
3865	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 35 mm outer dia	metre	10.00	945.00	9450.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.01246	145.72	1.82
	Add 3% for pipe inserted into fitting and wastage etc. on P				283.50
	3xP/ 100				
9999	Cement, sand and grit	L.S.	4.16	2.12	8.82
	Add 2% for special T&P and sundries etc. on P				189.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				11088.79 W

Code	Description	Unit	Quantity	Rate	Amount
	Add 1 % Water charges on "W"				110.89
	TOTAL				11199.68 X
	Add GST on "X" (multiplying factor 0.1405)				1573.56
	TOTAL				12773.24 Y
	Add 15% CPOH on "Y"				1915.99
	TOTAL				14689.22 Z
	Add Cess @ 1% on "Z"				146.89
	Cost of 10 metre				14836.12
	Cost of 1 metre				1483.61
	Say				1483.60
	FOR DPA 30% LESS				**1038.52**

18.85A.5 42 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
3866	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 42 mm outer dia	metre	10.00	1160.00	11600.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.0151	145.72	2.20
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100				348.00
9999	Cement, sand and grit	L.S.	5.33	2.12	11.30
	Add 2% for special T&P and sundries etc. on P 2xP/ 100				232.00
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				13349.16 W
	Add 1 % Water charges on "W"				133.49
	TOTAL				13482.65 X
	Add GST on "X" (multiplying factor 0.1405)				1894.31
	TOTAL				15376.96 Y
	Add 15% CPOH on "Y"				2306.54
	TOTAL				17683.51 Z
	Add Cess @ 1% on "Z"				176.84
	Cost of 10 metre				17860.34
	Cost of 1 metre				1786.03
	Say				1786.05
	FOR DPA 30% LESS				**1250.235**

18.85A.6 54 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate	Amount
3867 2272 9999	Details of cost for 10 metre MATERIAL SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 54 mm outer dia Carriage of Stainless Steel pipes below 100 mm dia Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100 Cement, sand and grit Add 2% for special T&P and sundries etc. on P 2xP/ 100	metre tonne L.S.	10.00 0.01953 5.33	1500.00 145.72 2.12	15000.00 P 2.85 450.00 11.30 300.00
	LABOUR				
0116	Fitter (grade 1)	day	0.33		258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66		471.24
0114	Beldar	day	0.66		425.70
	TOTAL				16919.81 W
	Add 1 % Water charges on "W"				169.20

	TOTAL				17089.00 X
	Add GST on "X" (multiplying factor 0.1405)				2401.01
	TOTAL				19490.01 Y
	Add 15% CPOH on "Y"				2923.50
	TOTAL				22413.51 Z
	Add Cess @ 1% on "Z"				224.14
	Cost of 10 metre				22637.64
	Cost of 1 metre				2263.76
	Say				2263.75
	FOR DPA 30% LESS				**1584.625**

18.81 Providing and fixing Stainless Steel pipe and fitting of grade AISI 304 as per JIS standard 3448 complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00m spacing and also including cutting of chases and making good the walls including testing of joints complete as per direction of Engineer -in-charge. (The pipe length inserted in the fitting shall not be measured for payment)

Internal work - Concealed Pipe

18.81.1 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
8779 2272 18.78 0116 0117	Details of cost for 10 metre MATERIAL SS pipe 304 grades with press fit technology as per JIS 3448 standard 15.88 mm outer dia Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100 Carriage of Stainless Steel pipes below 100 mm dia Making chases upto 7.5x7.5 cm.in walls and making good the same Rate as per Item No.18.78 of SH:WATER SUPPLY Add 2% for special T&P and sundries etc. on P 2xP/ 100 LABOUR Fitter (grade 1) Assistant Fitter or 2nd class Fitter	metre tonne metre day day	10.00 0.00301 10.00 0.33 0.66	140.00 145.72 171.80 784.00 714.00	1400.00 P 42.00 0.44 1718 A 28.00 258.72 471.24
0114	Beldar	day	0.66	645.00	425.7
	TOTAL				4344.10 W
	Add 1 % Water charges on "W-A"				26.26
	TOTAL				4370.36 X
	Add GST on "X-A" (multiplying factor 0.1405)				372.66
	TOTAL				4743.02 Y
	Add 15% CPOH on "Y-A"				453.75
	TOTAL				5196.77 Z
	Add Cess @ 1% on "Z-A"				34.79
	Cost of 10 metre				5231.56
	Cost of 1 metre				523.16
	Say				523.15
	FOR DPA 30% LESS				**366.205**

18.81.2 22.22 mm Outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
8780	SS pipe 304 grades with press fit technology as per JIS 3448 standard 22.22 mm outer dia	metre	10.00	250.00	2500.00 P
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100				75.00
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00529	145.72	0.77
18.78	Making chases upto 7.5x7.5 cm.in walls and making good the same Rate as per Item No.18.78 of SH: WATER SUPPLY	metre	10.00	171.80	1718 A
	Add 2% for special T&P and sundries etc. on P				50.00

	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.7
	TOTAL				5499.43 W
	Add 1 % Water charges on "W-A"				37.81
	TOTAL				5537.25 X
	Add GST on "X-A" (multiplying factor 0.1405)				536.60
	TOTAL				6073.85 Y
	Add 15% CPOH on "Y-A"				653.38
	TOTAL				6727.23 Z
	Add Cess @ 1% on "Z-A"				50.09
	Cost of 10 metre				6777.32
	Cost of 1 metre				677.73
	Say				677.75
	FOR DPA 30% LESS				**474.425**

18.86A Providing and fixing Stainless Steel pipe and fitting of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00m spacing and also including cutting of chases and making good the walls including testing of joints complete as per direction of Engineer -in-charge. (The pipe length inserted in the fitting shall not be measured for payment) Internal work - Concealed Pipe

18.86A.1 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
3862	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 15 mm outer dia	metre	10.00	310.00	3100.00 P
	Add 3% for pipe inserted into fitting and wastage etc. on P			.	93.00
	3xP/ 100				
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.003472	145.72	0.51
	Making chases upto 7.5x7.5 cm.in walls and making good the same				
18.78	Rate as per Item No.18.78 of SH:WATER SUPPLY	metre	10.00	171.80	1718 A
	Add 2% for special T&P and sundries etc. on P				62.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.7
	TOTAL				6129.17 W
	Add 1 % Water charges on "W-A"				44.11
	TOTAL				6173.28 X
	Add GST on "X" (multiplying factor 0.1405)				625.97
	TOTAL				6799.24 Y
	Add 15% CPOH on "Y-A"				762.19
	TOTAL				7561.43 Z
	Add Cess @ 1% on "Z-A"				58.43
	Cost of 10 metre				7619.87
	Cost of 1 metre				761.99
	Say				762.00
	FOR DPA 30% LESS				**533.4**

18.86A.2 22 mm Outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount

Code	Description	Unit	Quantity	Rate	Amount
3863	Details of cost for 10 metre MATERIAL SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 22 mm outer dia	metre	10.00	500.00	5000.00 P
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100				150.00
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00619	145.72	0.90
18.78	Making chases upto 7.5x7.5 cm. in walls and making good the same Rate as per Item No.18.78 of SH: WATER SUPPLY	metre	10.00	171.80	1718 A
	Add 2% for special T&P and sundries etc. on P 2xP/ 100				100.00
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.7
	TOTAL				8124.56 W
	Add 1 % Water charges on "W-A"				64.07
	TOTAL				8188.63 X
	Add GST on "X" (multiplying factor 0.1405)				909.12
	TOTAL				9097.75 Y
	Add 15% CPOH on "Y-A"				1106.96
	TOTAL				10204.71 Z
	Add Cess @ 1% on "Z-A"				84.87
	Cost of 10 metre				10289.58
	Cost of 1 metre				1028.96
	Say				1028.95
	FOR DPA 30% LESS				**720.265**

18.82 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Coupling/Socket

18.82.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8702	Coupling/Socket fittings for 15.88 mm outer dia SS pipe	each	1.00	60.00	60.00
	TOTAL				60.00 W
	Add 1 % Water charges on "W"				0.60
	TOTAL				60.60 X
	Add GST on "X" (multiplying factor 0.1405)				8.51
	TOTAL				69.11 Y
	Add 15% CPOH on "Y"				10.37
	TOTAL				79.48 Z
	Add Cess @ 1% on "Z"				0.79
	Cost of 1 no.				80.28
	Say				80.30
	FOR DPA 30% LESS				**56.21**

18.82.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8786	Coupling/Socket fittings for 22.22 mm outer dia SS pipe	each	1.00	70.00	70.00
	TOTAL				70.00 W
	Add 1 % Water charges on "W"				0.70
	TOTAL				70.70 X
	Add GST on "X" (multiplying				

	factor 0.1405)				9.93
	TOTAL				80.63 Y
	Add 15% CPOH on "Y"				12.10
	TOTAL				92.73 Z
	Add Cess @ 1% on "Z"				0.93
	Cost of 1 no.				93.66
	Say				93.65
	FOR DPA 30% LESS				**65.555**

18.82.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8787	Coupling/Socket fittings for 28.58 mm outer dia SS pipe	each	1.00	96.25	96.25
	TOTAL				96.25 W
	Add 1 % Water charges on "W"				0.96
	TOTAL				97.21 X
	Add GST on "X" (multiplying factor 0.1405)				13.66
	TOTAL				110.87 Y
	Add 15% CPOH on "Y"				16.63
	TOTAL				127.50 Z
	Add Cess @ 1% on "Z"				1.28
	Cost of 1 no.				128.78
	Say				128.80
	FOR DPA 30% LESS				**90.16**

18.82.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8788	Coupling/Socket fittings for 34.00 mm outer dia SS pipe	each	1.00	135.00	135.00
	TOTAL				135.00 W
	Add 1 % Water charges on "W"				1.35
	TOTAL				136.35 X
	Add GST on "X" (multiplying factor 0.1405)				19.16
	TOTAL				155.51 Y
	Add 15% CPOH on "Y"				23.33
	TOTAL				178.83 Z
	Add Cess @ 1% on "Z"				1.79
	Cost of 1 no.				180.62
	Say				180.60
	FOR DPA 30% LESS				**126.42**

18.82.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8789	Coupling/Socket fittings for 42.70 mm outer dia SS pipe	each	1.00	160.00	160.00
	TOTAL				160.00 W
	Add 1 % Water charges on "W"				1.60
	TOTAL				161.60 X
	Add GST on "X" (multiplying factor 0.1405)				22.70
	TOTAL				184.30 Y
	Add 15% CPOH on "Y"				27.65
	TOTAL				211.95 Z
	Add Cess @ 1% on "Z"				2.12
	Cost of 1 no.				214.07
	Say				214.05
	FOR DPA 30% LESS				**149.835**

18.82.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount

Code	Description	Unit	Quantity	Rate	Amount
8790	Details of cost for 1 no. MATERIAL Coupling/Socket fittings for 48.60 mm outer dia SS pipe	each	1.00	180.00	180.00
	TOTAL				180.00 W
	Add 1 % Water charges on "W"				1.80
	TOTAL				181.80 X
	Add GST on "X" (multiplying factor 0.1405)				25.54
	TOTAL				207.34 Y
	Add 15% CPOH on "Y"				31.10
	TOTAL				238.44 Z
	Add Cess @ 1% on "Z"				2.38
	Cost of 1 no.				240.83
	Say				240.85
	FOR DPA 30% LESS				**168.595**

18.87A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Coupling/Socket 18.87A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no. MATERIAL				
3868	Coupling/Socket fittings for 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	215.00	215.00
	TOTAL				215.00 W
	Add 1 % Water charges on "W"				2.15
	TOTAL				217.15 X
	Add GST on "X" (multiplying factor 0.1405)				30.51
	TOTAL				247.66 Y
	Add 15% CPOH on "Y"				37.15
	TOTAL				284.81 Z
	Add Cess @ 1% on "Z"				2.85
	Cost of 1 no.				287.66
	Say				287.65
	FOR DPA 30% LESS				**201.355**

18.87A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
3869	Details of cost for 1 no. MATERIAL Coupling/Socket fittings for 22 mm outer dia SS pipe of grade 316 L as per IS 6911:2017 and conforming to EN-10312	each	1.00	270.00	270.00
	TOTAL				270.00 W
	Add 1 % Water charges on "W"				2.70
	TOTAL				272.70 X
	Add GST on "X" (multiplying factor 0.1405)				38.31
	TOTAL				311.01 Y
	Add 15% CPOH on "Y"				46.65
	TOTAL				357.67 Z
	Add Cess @ 1% on "Z"				3.58
	Cost of 1 no.				361.24
	Say				361.25
	FOR DPA 30% LESS				**252.875**

18.87A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
3870	Details of cost for 1 no. MATERIAL Coupling/Socket fittings for 28 mm outer dia SS pipe of grade 316L as per				

	IS 6911:2017 and conforming to EN-10312	each	1.00	315.00	315.00
	TOTAL				315.00 W
	Add 1 % Water charges on "W"				3.15
	TOTAL				318.15 X
	Add GST on "X" (multiplying factor 0.1405)				44.70
	TOTAL				362.85 Y
	Add 15% CPOH on "Y"				54.43
	TOTAL				417.28 Z
	Add Cess @ 1% on "Z"				4.17
	Cost of 1 no.				421.45
	Say				421.45
3871	Details of cost for 1 no.				
	MATERIAL				
	Coupling/Socket fittings for 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	395.00	395.00
	TOTAL				395.00 W
	Add 1 % Water charges on "W"				3.95
	TOTAL				398.95 X
	Add GST on "X" (multiplying factor 0.1405)				56.05
	TOTAL				455.00 Y
	Add 15% CPOH on "Y"				68.25
	TOTAL				523.25 Z
	Add Cess @ 1% on "Z"				5.23
	Cost of 1 no.				528.49
	Say				528.50
	FOR DPA 30% LESS				**369.95**

18.87A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
3872	Details of cost for 1 no.				
	MATERIAL				
	Coupling/Socket fittings for 42 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	535.00	535.00
	TOTAL				535.00 W
	Add 1 % Water charges on "W"				5.35
	TOTAL				540.35 X
	Add GST on "X" (multiplying factor 0.1405)				75.92
	TOTAL				616.27 Y
	Add 15% CPOH on "Y"				92.44
	TOTAL				708.71 Z
	Add Cess @ 1% on "Z"				7.09
	Cost of 1 no.				715.80
	Say				715.80
	FOR DPA 30% LESS				**501.06**

18.87A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
3873	Details of cost for 1 no.				
	MATERIAL				
	Coupling/Socket fittings for 54 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	640.00	640.00
	TOTAL				640.00 W
	Add 1 % Water charges on "W"				6.40
	TOTAL				646.40 X
	Add GST on "X" (multiplying factor 0.1405)				90.82
	TOTAL				737.22 Y

	Add 15% CPOH on "Y"				110.58
	TOTAL				847.80 Z
	Add Cess @ 1% on "Z"				8.48
	Cost of 1 no.				856.28
	Say				856.30
	FOR DPA 30% LESS				**599.41**

18.83 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per dirction of Engineer-in-charge.

Reducer

18.83.1 For 22.22 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8791	Reducer for 22.22 mm X 15.88 mm outer Dia SS pipe	each	1.00	108.50	108.50
	TOTAL				108.50 W
	Add 1 % Water charges on "W"				1.09
	TOTAL				109.59 X
	Add GST on "X" (multiplying factor 0.1405)				15.40
	TOTAL				124.98 Y
	Add 15% CPOH on "Y"				18.75
	TOTAL				143.73 Z
	Add Cess @ 1% on "Z"				1.44
	Cost of 1 no.				145.17
	Say				145.15
	FOR DPA 30% LESS				**101.605**

18.83.2 For 28.58 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8792	Reducer for 28.58 mm X 15.88 mm outer Dia SS pipe	each	1.00	152.50	152.50
	TOTAL				152.50 W
	Add 1 % Water charges on "W"				1.53
	TOTAL				154.03 X
	Add GST on "X" (multiplying factor 0.1405)				21.64
	TOTAL				175.67 Y
	Add 15% CPOH on "Y"				26.35
	TOTAL				202.02 Z
	Add Cess @ 1% on "Z"				2.02
	Cost of 1 no.				204.04
	Say				204.05
	FOR DPA 30% LESS				**142.835**

18.83.3 For 28.58 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8793	Reducer for 28.58 mm X 22.22 mm outer Dia SS pipe	each	1.00	161.50	161.50
	TOTAL				161.50 W
	Add 1 % Water charges on "W"				1.62
	TOTAL				163.12 X
	Add GST on "X" (multiplying factor 0.1405)				22.92
	TOTAL				186.03 Y
	Add 15% CPOH on "Y"				27.90
	TOTAL				213.94 Z
	Add Cess @ 1% on "Z"				2.14

Code	Description	Unit	Quantity	Rate	Amount
	Cost of 1 no.				216.08
	Say				216.10
	FOR DPA 30% LESS				**151.27**

18.83.4 For 34.00 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8794	Reducer for 34.00 mm X 15.88 mm outer Dia SS pipe	each	1.00	200.00	200.00
	TOTAL				200.00 W
	Add 1 % Water charges on "W"				2.00
	TOTAL				202.00 X
	Add GST on "X" (multiplying factor 0.1405)				28.38
	TOTAL				230.38 Y
	Add 15% CPOH on "Y"				34.56
	TOTAL				264.94 Z
	Add Cess @ 1% on "Z"				2.65
	Cost of 1 no.				267.59
	Say				267.60
	FOR DPA 30% LESS				**187.32**

18.83.5 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8795	Reducer for 34.00 mm X 22.22 mm outer Dia SS pipe	each	1.00	210.00	210.00
	TOTAL				210.00 W
	Add 1 % Water charges on "W"				2.10
	TOTAL				212.10 X
	Add GST on "X" (multiplying factor 0.1405)				29.80
	TOTAL				241.90 Y
	Add 15% CPOH on "Y"				36.29
	TOTAL				278.19 Z
	Add Cess @ 1% on "Z"				2.78
	Cost of 1 no.				280.97
	Say				280.95
	FOR DPA 30% LESS				**196.665**

18.83.6 For 34.00 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8796	Reducer for 34.00 mm X 28.58 mm outer Dia SS pipe	each	1.00	210.00	210.00
	TOTAL				210.00 W
	Add 1 % Water charges on "W"				2.10
	TOTAL				212.10 X
	Add GST on "X" (multiplying factor 0.1405)				29.80
	TOTAL				241.90 Y
	Add 15% CPOH on "Y"				36.29
	TOTAL				278.19 Z
	Add Cess @ 1% on "Z"				2.78
	Cost of 1 no.				280.97
	Say				280.95
	FOR DPA 30% LESS				**196.665**

18.83.7 For 42.70 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8797	Reducer for 42.70 mm X 15.88 mm outer Dia SS pipe	each	1.00	375.00	375.00
	TOTAL				375.00 W

	Add 1 % Water charges on "W"				3.75
	TOTAL				378.75 X
	Add GST on "X" (multiplying factor 0.1405)				53.21
	TOTAL				431.96 Y
	Add 15% CPOH on "Y"				64.79
	TOTAL				496.76 Z
	Add Cess @ 1% on "Z"				4.97
	Cost of 1 no.				501.73
	Say				501.75
	FOR DPA 30% LESS				**351.225**

18.83.8 For 42.70 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8798	Reducer for 42.70 mm X 22.22 mm outer Dia SS pipe	each	1.00	375.00	375.00
	TOTAL				375.00 W
	Add 1 % Water charges on "W"				3.75
	TOTAL				378.75 X
	Add GST on "X" (multiplying factor 0.1405)				53.21
	TOTAL				431.96 Y
	Add 15% CPOH on "Y"				64.79
	TOTAL				496.76 Z
	Add Cess @ 1% on "Z"				4.97
	Cost of 1 no.				501.73
	Say				501.75
	FOR DPA 30% LESS				**351.225**

18.83.9 For 42.70 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8799	Reducer for 42.70 mm X 28.58 mm outer Dia SS pipe	each	1.00	390.00	390.00
	TOTAL				390.00 W
	Add 1 % Water charges on "W"				3.90
	TOTAL				393.90 X
	Add GST on "X" (multiplying factor 0.1405)				55.34
	TOTAL				449.24 Y
	Add 15% CPOH on "Y"				67.39
	TOTAL				516.63 Z
	Add Cess @ 1% on "Z"				5.17
	Cost of 1 no.				521.80
	Say				521.80
	FOR DPA 30% LESS				**365.26**

18.83.10 For 42.70 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8800	Reducer for 42.70 mm X 34.00 mm outer Dia SS pipe	each	1.00	390.00	390.00
	TOTAL				390.00 W
	Add 1 % Water charges on "W"				3.90
	TOTAL				393.90 X
	Add GST on "X" (multiplying factor 0.1405)				55.34
	TOTAL				449.24 Y
	Add 15% CPOH on "Y"				67.39
	TOTAL				516.63 Z
	Add Cess @ 1% on "Z"				5.17
	Cost of 1 no.				521.80
	Say				521.80

Code	Description	Unit	Quantity	Rate	Amount
	FOR DPA 30% LESS				**365.26**
18.83.11	**For 48.60 mm x 15.88 mm outer dia pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
8801	Reducer for 48.60 mm X 15.88 mm outer Dia SS pipe	each	1.00	425.00	425.00
	TOTAL				425.00 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				429.25 X
	Add GST on "X" (multiplying factor 0.1405)				60.31
	TOTAL				489.56 Y
	Add 15% CPOH on "Y"				73.43
	TOTAL				562.99 Z
	Add Cess @ 1% on "Z"				5.63
	Cost of 1 no.				568.62
	Say				568.60
	FOR DPA 30% LESS				**398.02**
18.83.12	**For 48.60 mm x 22.22 mm outer dia pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
8802	Reducer for 48.60 mm X 22.22 mm outer Dia SS pipe	each	1.00	425.00	425.00
	TOTAL				425.00 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				429.25 X
	Add GST on "X" (multiplying factor 0.1405)				60.31
	TOTAL				489.56 Y
	Add 15% CPOH on "Y"				73.43
	TOTAL				562.99 Z
	Add Cess @ 1% on "Z"				5.63
	Cost of 1 no.				568.62
	Say				568.60
	FOR DPA 30% LESS				**398.02**
18.83.13	**For 48.60 mm x 28.58 mm outer dia pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
8803	Reducer for 48.60 mm X 28.58 mm outer Dia SS pipe	each	1.00	425.00	425.00
	TOTAL				425.00 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				429.25 X
	Add GST on "X" (multiplying factor 0.1405)				60.31
	TOTAL				489.56 Y
	Add 15% CPOH on "Y"				73.43
	TOTAL				562.99 Z
	Add Cess @ 1% on "Z"				5.63
	Cost of 1 no.				568.62
	Say				568.60
	Details of cost for 1 no.				
	MATERIAL				
8804	Reducer for 48.60 mm X 34.00 mm outer Dia SS pipe	each	1.00	425.00	425.00
	TOTAL				425.00 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				429.25 X
	Add GST on "X" (multiplying factor 0.1405)				60.31
	TOTAL				489.56 Y

	Add 15% CPOH on "Y"				73.43
	TOTAL				562.99 Z
	Add Cess @ 1% on "Z"				5.63
	Cost of 1 no.				568.62
	Say				568.60
	FOR DPA 30% LESS				**398.02**

18.83.15 For 48.60 mm x 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8805	Reducer for48.60 mm X 42.70 mm outer Dia SS pipe	each	1.00	425.00	425.00
	TOTAL				425.00 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				429.25 X
	Add GST on "X" (multiplying factor 0.1405)				60.31
	TOTAL				489.56 Y
	Add 15% CPOH on "Y"				73.43
	TOTAL				562.99 Z
	Add Cess @ 1% on "Z"				5.63
	Cost of 1 no.				568.62
	Say				568.60
	FOR DPA 30% LESS				**398.02**

18.88A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per dirction of Engineer-in-charge.

Reducer

18.88A.1 For 22mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3874	Reducer for 22mm x 15 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	255.00	255.00
	TOTAL				255.00 W
	Add 1 % Water charges on "W"				2.55
	TOTAL				257.55 X
	Add GST on "X" (multiplying factor 0.1405)				36.19
	TOTAL				293.74 Y
	Add 15% CPOH on "Y"				44.06
	TOTAL				337.80 Z
	Add Cess @ 1% on "Z"				3.38
	Cost of 1 no.				341.17
	Say				341.15
	FOR DPA 30% LESS				**238.805**

18.88A.2 For 28 mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3875	Reducer for 28 mm X 15 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	310.00	310.00
	TOTAL				310.00 W
	Add 1 % Water charges on "W"				3.10
	TOTAL				313.10 X
	Add GST on "X" (multiplying factor 0.1405)				43.99
	TOTAL				357.09 Y
	Add 15% CPOH on "Y"				53.56
	TOTAL				410.65 Z
	Add Cess @ 1% on "Z"				4.11

	Description	Unit	Quantity	Rate	Amount
	Cost of 1 no.				414.76
	Say				414.75
	FOR DPA 30% LESS				**290.325**

18.88A.3 For 28 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3876	Reducer for 28 mm x 22 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	375.00	375.00
	TOTAL				375.00 W
	Add 1 % Water charges on "W"				3.75
	TOTAL				378.75 X
	Add GST on "X" (multiplying factor 0.1405)				53.21
	TOTAL				431.96 Y
	Add 15% CPOH on "Y"				64.79
	TOTAL				496.76 Z
	Add Cess @ 1% on "Z"				4.97
	Cost of 1 no.				501.73
	Say				501.75
	Details of cost for 1 no.				
	MATERIAL				
3877	Reducer for 35 mm x 22 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	380.00	380.00
	TOTAL				380.00 W
	Add 1 % Water charges on "W"				3.80
	TOTAL				383.80 X
	Add GST on "X" (multiplying factor 0.1405)				53.92
	TOTAL				437.72 Y
	Add 15% CPOH on "Y"				65.66
	TOTAL				503.38 Z
	Add Cess @ 1% on "Z"				5.03
	Cost of 1 no.				508.42
	Say				508.40
	FOR DPA 30% LESS				**355.88**

18.88A.5 For 35 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3878	Reducer for 35 mm x 28 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	470.00	470.00
	TOTAL				470.00 W
	Add 1 % Water charges on "W"				4.70
	TOTAL				474.70 X
	Add GST on "X" (multiplying factor 0.1405)				66.70
	TOTAL				541.40 Y
	Add 15% CPOH on "Y"				81.21
	TOTAL				622.60 Z
	Add Cess @ 1% on "Z"				6.23
	Cost of 1 no.				628.83
	Say				628.85
	FOR DPA 30% LESS				**440.195**

18.88A.6 For 42 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				

3879	Reducer for 42 mm x 22 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	605.00	605.00
	TOTAL				605.00 W
	Add 1 % Water charges on "W"				6.05
	TOTAL				611.05 X
	Add GST on "X" (multiplying factor 0.1405)				85.85
	TOTAL				696.90 Y
	Add 15% CPOH on "Y"				104.54
	TOTAL				801.44 Z
	Add Cess @ 1% on "Z"				8.01
	Cost of 1 no.				809.45
	Say				809.45
	FOR DPA 30% LESS				**566.615**

18.88A.7 For 42 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3880	Reducer for 42 mm x 28 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	690.00	690.00
	TOTAL				690.00 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.03 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20
	FOR DPA 30% LESS				**646.24**

18.88A.8 For 42 mm x 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3881	Reducer for 42 mm x 35 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	720.00	720.00
	TOTAL				720.00 W
	Add 1 % Water charges on "W"				7.20
	TOTAL				727.20 X
	Add GST on "X" (multiplying factor 0.1405)				102.17
	TOTAL				829.37 Y
	Add 15% CPOH on "Y"				124.41
	TOTAL				953.78 Z
	Add Cess @ 1% on "Z"				9.54
	Cost of 1 no.				963.32
	Say				963.30
	Details of cost for 1 no.				
	MATERIAL				
3882	Reducer for 54 mm x 28 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	835.00	835.00
	TOTAL				835.00 W
	Add 1 % Water charges on "W"				8.35
	TOTAL				843.35 X

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X" (multiplying factor 0.1405)				118.49
	TOTAL				961.84 Y
	Add 15% CPOH on "Y"				144.28
	TOTAL				1106.12 Z
	Add Cess @ 1% on "Z"				11.06
	Cost of 1 no.				1117.18
	Say				1117.20
	FOR DPA 30% LESS				**782.04**

18.88A.10 For 54 mm x 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3883	Reducer for 54 mm x 35 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	990.00	990.00
	TOTAL				990.00 W
	Add 1 % Water charges on "W"				9.90
	TOTAL				999.90 X
	Add GST on "X" (multiplying factor 0.1405)				140.49
	TOTAL				1140.39 Y
	Add 15% CPOH on "Y"				171.06
	TOTAL				1311.44 Z
	Add Cess @ 1% on "Z"				13.11
	Cost of 1 no.				1324.56
	Say				1324.55
	FOR DPA 30% LESS				**927.185**

18.88A.11 For 54 mm x 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3884	Reducer for 54 mm x 42 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1030.00	1030.00
	TOTAL				1030.00 W
	Add 1 % Water charges on "W"				10.30
	TOTAL				1040.30 X
	Add GST on "X" (multiplying factor 0.1405)				146.16
	TOTAL				1186.46 Y
	Add 15% CPOH on "Y"				177.97
	TOTAL				1364.43 Z
	Add Cess @ 1% on "Z"				13.64
	Cost of 1 no.				1378.08
	Say				1378.10
	FOR DPA 30% LESS				**964.67**

18.84 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Slip Coupling/ Socket

18.84.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8806	Slip Coupling / Socket 15.88 mm outer dia SS pipe	each	1.00	55.00	55.00
	TOTAL				55.00 W
	Add 1 % Water charges on "W"				0.55
	TOTAL				55.55 X
	Add GST on "X" (multiplying factor 0.1405)				7.80

	TOTAL				63.35 Y
	Add 15% CPOH on "Y"				9.50
	TOTAL				72.86 Z
	Add Cess @ 1% on "Z"				0.73
	Cost of 1 no.				73.59
	Say				73.60
	FOR DPA 30% LESS				**51.52**

18.84.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8807	Slip Coupling / Socket 22.22 mm outer dia SS pipe	each	1.00	70.00	70.00
	TOTAL				70.00 W
	Add 1 % Water charges on "W"				0.70
	TOTAL				70.70 X
	Add GST on "X" (multiplying factor 0.1405)				9.93
	TOTAL				80.63 Y
	Add 15% CPOH on "Y"				12.10
	TOTAL				92.73 Z
	Add Cess @ 1% on "Z"				0.93
	Cost of 1 no.				93.66
	Say				93.65
	Details of cost for 1 no.				
	MATERIAL				
8808	Slip Coupling / Socket 28.58 mm outer dia SS pipe	each	1.00	95.00	95.00
	TOTAL				95.00 W
	Add 1 % Water charges on "W"				0.95
	TOTAL				95.95 X
	Add GST on "X" (multiplying factor 0.1405)				13.48
	TOTAL				109.43 Y
	Add 15% CPOH on "Y"				16.41
	TOTAL				125.85 Z
	Add Cess @ 1% on "Z"				1.26
	Cost of 1 no.				127.10
	Say				127.10
	FOR DPA 30% LESS				**88.97**

18.84.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8809	Slip Coupling / Socket 34.00 mm outer dia SS pipe	each	1.00	135.00	135.00
	TOTAL				135.00 W
	Add 1 % Water charges on "W"				1.35
	TOTAL				136.35 X
	Add GST on "X" (multiplying factor 0.1405)				19.16
	TOTAL				155.51 Y
	Add 15% CPOH on "Y"				23.33
	TOTAL				178.83 Z
	Add Cess @ 1% on "Z"				1.79
	Cost of 1 no.				180.62
	Say				180.60
	FOR DPA 30% LESS				**126.42**

18.84.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8810	Slip Coupling / Socket 42.70 mm outer dia SS pipe	each	1.00	160.00	160.00

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				160.00 W
	Add 1 % Water charges on "W"				1.60
	TOTAL				161.60 X
	Add GST on "X" (multiplying factor 0.1405)				22.70
	TOTAL				184.30 Y
	Add 15% CPOH on "Y"				27.65
	TOTAL				211.95 Z
	Add Cess @ 1% on "Z"				2.12
	Cost of 1 no.				214.07
	Say				214.05
	FOR DPA 30% LESS				**149.835**

18.84.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8811	Slip Coupling / Socket 48.60 mm outer dia SS pipe	each	1.00	175.00	175.00
	TOTAL				175.00 W
	Add 1 % Water charges on "W"				1.75
	TOTAL				176.75 X
	Add GST on "X" (multiplying factor 0.1405)				24.83
	TOTAL				201.58 Y
	Add 15% CPOH on "Y"				30.24
	TOTAL				231.82 Z
	Add Cess @ 1% on "Z"				2.32
	Cost of 1 no.				234.14
	Say				234.15
	FOR DPA 30% LESS				**163.905**

18.89A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Sleeve/Slip Coupling/ Socket 18.89A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3885	Sleeve/ Slip Coupling / Socket 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	375.00	375.00
	TOTAL				375.00 W
	Add 1 % Water charges on "W"				3.75
	TOTAL				378.75 X
	Add GST on "X" (multiplying factor 0.1405)				53.21
	TOTAL				431.96 Y
	Add 15% CPOH on "Y"				64.79
	TOTAL				496.76 Z
	Add Cess @ 1% on "Z"				4.97
	Cost of 1 no.				501.73
	Say				501.75
	FOR DPA 30% LESS				**351.225**
	Details of cost for 1 no.				
	MATERIAL				
3886	Sleeve/ Slip Coupling / Socket 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	450.00	450.00
	TOTAL				450.00 W
	Add 1 % Water charges on "W"				4.50
	TOTAL				454.50 X
	Add GST on "X" (multiplying				

	factor 0.1405)				63.86
	TOTAL				518.36 Y
	Add 15% CPOH on "Y"				77.75
	TOTAL				596.11 Z
	Add Cess @ 1% on "Z"				5.96
	Cost of 1 no.				602.07
	Say				602.05
	FOR DPA 30% LESS				**421.435**

18.89A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3887	Sleeve/ Slip Coupling / Socket 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	520.00	520.00
	TOTAL				520.00 W
	Add 1 % Water charges on "W"				5.20
	TOTAL				525.20 X
	Add GST on "X" (multiplying factor 0.1405)				73.79
	TOTAL				598.99 Y
	Add 15% CPOH on "Y"				89.85
	TOTAL				688.84 Z
	Add Cess @ 1% on "Z"				6.89
	Cost of 1 no.				695.73
	Say				695.75
	FOR DPA 30% LESS				**487.025**

18.89A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3888	Sleeve/ Slip Coupling / Socket 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	580.00	580.00
	TOTAL				580.00 W
	Add 1 % Water charges on "W"				5.80
	TOTAL				585.80 X
	Add GST on "X" (multiplying factor 0.1405)				82.30
	TOTAL				668.10 Y
	Add 15% CPOH on "Y"				100.22
	TOTAL				768.32 Z
	Add Cess @ 1% on "Z"				7.68
	Cost of 1 no.				776.00
	Say				776.00
	FOR DPA 30% LESS				**543.2**

18.89A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3889	Sleeve/ Slip Coupling / Socket 42 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	670.00	670.00
	TOTAL				670.00 W
	Add 1 % Water charges on "W"				6.70
	TOTAL				676.70 X
	Add GST on "X" (multiplying factor 0.1405)				95.08
	TOTAL				771.78 Y
	Add 15% CPOH on "Y"				115.77
	TOTAL				887.54 Z

	Add Cess @ 1% on "Z"				8.88
	Cost of 1 no.				896.42
	Say				896.40
	FOR DPA 30% LESS				**627.48**

18.89A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3890	Sleeve/ Slip Coupling / Socket 54 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	955.00	955.00
	TOTAL				955.00 W
	Add 1 % Water charges on "W"				9.55
	TOTAL				964.55 X
	Add GST on "X" (multiplying factor 0.1405)				135.52
	TOTAL				1100.07 Y
	Add 15% CPOH on "Y"				165.01
	TOTAL				1265.08 Z
	Add Cess @ 1% on "Z"				12.65
	Cost of 1 no.				1277.73
	Say				1277.75
	FOR DPA 30% LESS				**894.425**

18.85 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Elbow 90°

18.85.1 For 15.88mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8812	Elbow 90° for 15.88 mm outer dia SS pipe	each	1.00	65.00	65.00
	TOTAL				65.00 W
	Add 1 % Water charges on "W"				0.65
	TOTAL				65.65 X
	Add GST on "X" (multiplying factor 0.1405)				9.22
	TOTAL				74.87 Y
	Add 15% CPOH on "Y"				11.23
	TOTAL				86.10 Z
	Add Cess @ 1% on "Z"				0.86
	Cost of 1 no.				86.97
	Say				86.95
	FOR DPA 30% LESS				**60.865**

18.85.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8813	Elbow 90° for 22.22 mm outer dia SS pipe	each	1.00	70.00	70.00
	TOTAL				70.00 W
	Add 1 % Water charges on "W"				0.70
	TOTAL				70.70 X
	Add GST on "X" (multiplying factor 0.1405)				9.93
	TOTAL				80.63 Y
	Add 15% CPOH on "Y"				12.10
	TOTAL				92.73 Z
	Add Cess @ 1% on "Z"				0.93
	Cost of 1 no.				93.66
	Say				93.65

	FOR DPA 30% LESS				**65.555**
18.85.3	**For 28.58 mm outer dia pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no. MATERIAL				
8814	Elbow 90° for 28.58 mm outer dia SS pipe	each	1.00	105.00	105.00
	TOTAL				105.00 W
	Add 1 % Water charges on "W"				1.05
	TOTAL				106.05 X
	Add GST on "X" (multiplying factor 0.1405)				14.90
	TOTAL				120.95 Y
	Add 15% CPOH on "Y"				18.14
	TOTAL				139.09 Z
	Add Cess @ 1% on "Z"				1.39
	Cost of 1 no.				140.48
	Say				140.50
	FOR DPA 30% LESS				**98.35**
18.85.4	**For 34.00 mm outer dia pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no. MATERIAL				
8815	Elbow 90° for 34.00 mm outer dia SS pipe	each	1.00	120.00	120.00
	TOTAL				120.00 W
	Add 1 % Water charges on "W"				1.20
	TOTAL				121.20 X
	Add GST on "X" (multiplying factor 0.1405)				17.03
	TOTAL				138.23 Y
	Add 15% CPOH on "Y"				20.73
	TOTAL				158.96 Z
	Add Cess @ 1% on "Z"				1.59
	Cost of 1 no.				160.55
	Say				160.55
	FOR DPA 30% LESS				**112.385**
18.85.5	**For 42.70 mm outer dia pipe**				

Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no. MATERIAL				
8816	Elbow 90° for 42.70 mm outer dia SS pipe	each	1.00	130.00	130.00
	TOTAL				130.00 W
	Add 1 % Water charges on "W"				1.30
	TOTAL				131.30 X
	Add GST on "X" (multiplying factor 0.1405)				18.45
	TOTAL				149.75 Y
	Add 15% CPOH on "Y"				22.46
	TOTAL				172.21 Z
	Add Cess @ 1% on "Z"				1.72
	Cost of 1 no.				173.93
	Say				173.95
	FOR DPA 30% LESS				**121.765**
18.85.6	**For 48.60 mm outer dia pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no. MATERIAL				
8817	Elbow 90° for 48.60 mm outer dia SS pipe	each	1.00	160.00	160.00
	TOTAL				160.00 W
	Add 1 % Water charges on "W"				1.60
	TOTAL				161.60 X
	Add GST on "X" (multiplying factor 0.1405)				22.70

	TOTAL				184.30 Y
	Add 15% CPOH on "Y"				27.65
	TOTAL				211.95 Z
	Add Cess @ 1% on "Z"				2.12
	Cost of 1 no.				214.07
	Say				214.05
	FOR DPA 30% LESS				**149.835**

18.90A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Elbow 90°

18.90A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3891	Elbow 90° for 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	305.00	305.00
	TOTAL				305.00 W
	Add 1 % Water charges on "W"				3.05
	TOTAL				308.05 X
	Add GST on "X" (multiplying factor 0.1405)				43.28
	TOTAL				351.33 Y
	Add 15% CPOH on "Y"				52.70
	TOTAL				404.03 Z
	Add Cess @ 1% on "Z"				4.04
	Cost of 1 no.				408.07
	Say				408.05
	FOR DPA 30% LESS				**285.635**

18.90A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3892	Elbow 90° for 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	430.00	430.00
	TOTAL				430.00 W
	Add 1 % Water charges on "W"				4.30
	TOTAL				434.30 X
	Add GST on "X" (multiplying factor 0.1405)				61.02
	TOTAL				495.32 Y
	Add 15% CPOH on "Y"				74.30
	TOTAL				569.62 Z
	Add Cess @ 1% on "Z"				5.70
	Cost of 1 no.				575.31
	Say				575.30
	FOR DPA 30% LESS				**402.71**

18.90A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3893	Elbow 90° for 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	575.00	575.00
	TOTAL				575.00 W
	Add 1 % Water charges on "W"				5.75
	TOTAL				580.75 X
	Add GST on "X" (multiplying factor 0.1405)				81.60
	TOTAL				662.35 Y
	Add 15% CPOH on "Y"				99.35

	TOTAL				761.70 Z
	Add Cess @ 1% on "Z"				7.62
	Cost of 1 no.				769.31
	Say				769.30
	FOR DPA 30% LESS				**538.51**

18.90A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3894	Elbow 90° for 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	940.00	940.00
	TOTAL				940.00 W
	Add 1 % Water charges on "W"				9.40
	TOTAL				949.40 X
	Add GST on "X" (multiplying factor 0.1405)				133.39
	TOTAL				1082.79 Y
	Add 15% CPOH on "Y"				162.42
	TOTAL				1245.21 Z
	Add Cess @ 1% on "Z"				12.45
	Cost of 1 no.				1257.66
	Say				1257.65
	FOR DPA 30% LESS				**880.355**

18.90A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3895	Elbow 90° for 42 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1520.00	1520.00
	TOTAL				1520.00 W
	Add 1 % Water charges on "W"				15.20
	TOTAL				1535.20 X
	Add GST on "X" (multiplying factor 0.1405)				215.70
	TOTAL				1750.90 Y
	Add 15% CPOH on "Y"				262.63
	TOTAL				2013.53 Z
	Add Cess @ 1% on "Z"				20.14
	Cost of 1 no.				2033.67
	Say				2033.65
	FOR DPA 30% LESS				**1423.555**

18.90A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3896	Elbow 90° for 54 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2010.00	2010.00
	TOTAL				2010.00 W
	Add 1 % Water charges on "W"				20.10
	TOTAL				2030.10 X
	Add GST on "X" (multiplying factor 0.1405)				285.23
	TOTAL				2315.33 Y
	Add 15% CPOH on "Y"				347.30
	TOTAL				2662.63 Z
	Add Cess @ 1% on "Z"				26.63
	Cost of 1 no.				2689.25
	Say				2689.25
	FOR DPA 30% LESS				**1882.475**

18.86 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Reducing Elbow 90°

18.86.1 For22.22 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8818	Reducing Elbow 90° for 22.22 mm X 15.88 mm outer dia SS pipe	each	1.00	150.00	150.00
	TOTAL				150.00 W
	Add 1 % Water charges on "W"				1.50
	TOTAL				151.50 X
	Add GST on "X" (multiplying factor 0.1405)				21.29
	TOTAL				172.79 Y
	Add 15% CPOH on "Y"				25.92
	TOTAL				198.70 Z
	Add Cess @ 1% on "Z"				1.99
	Cost of 1 no.				200.69
	Say				200.70
	FOR DPA 30% LESS				**140.49**

18.86.2 For 28.58 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8819	Reducing Elbow 90° for 28.58 mm X 15.88 mm outer dia SS pipe	each	1.00	210.00	210.00
	TOTAL				210.00 W
	Add 1 % Water charges on "W"				2.10
	TOTAL				212.10 X
	Add GST on "X" (multiplying factor 0.1405)				29.80
	TOTAL				241.90 Y
	Add 15% CPOH on "Y"				36.29
	TOTAL				278.19 Z
	Add Cess @ 1% on "Z"				2.78
	Cost of 1 no.				280.97
	Say				280.95
	FOR DPA 30% LESS				**196.665**

18.86.3 For 28.58 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
8820	Details of cost for 1 no. MATERIAL Reducing Elbow 90° for 28.58 mm X 22.22 mm outer dia SS pipe	each	1.00	250.00	250.00
	TOTAL				250.00 W
	Add 1 % Water charges on "W"				2.50
	TOTAL				252.50 X
	Add GST on "X" (multiplying factor 0.1405)				35.48
	TOTAL				287.98 Y
	Add 15% CPOH on "Y"				43.20
	TOTAL				331.17 Z
	Add Cess @ 1% on "Z"				3.31
	Cost of 1 no.				334.48
	Say				334.50
	FOR DPA 30% LESS				**234.15**

18.86.4 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8821	Reducing Elbow 90° for 34.00 mm X 22.22 mm outer dia SS pipe	each	1.00	295.00	295.00
	TOTAL				295.00 W
	Add 1 % Water charges on "W"				2.95

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				297.95 X
	Add GST on "X" (multiplying factor 0.1405)				41.86
	TOTAL				339.81 Y
	Add 15% CPOH on "Y"				50.97
	TOTAL				390.78 Z
	Add Cess @ 1% on "Z"				3.91
	Cost of 1 no.				394.69
	Say				394.70
	FOR DPA 30% LESS				**276.29**

18.86.5 For 34.00 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8822	Reducing Elbow 90° for 34.00 mm X 28.58 mm outer dia SS pipe	each	1.00	350.00	350.00
	TOTAL				350.00 W
	Add 1 % Water charges on "W"				3.50
	TOTAL				353.50 X
	Add GST on "X" (multiplying factor 0.1405)				49.67
	TOTAL				403.17 Y
	Add 15% CPOH on "Y"				60.48
	TOTAL				463.64 Z
	Add Cess @ 1% on "Z"				4.64
	Cost of 1 no.				468.28
	Say				468.30
	FOR DPA 30% LESS				**327.81**

18.86.6 For 34.00 mm x 34 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8823	Reducing Elbow 90° for 42.70 mm X 34.00 mm outer dia SS pipe	each	1.00	190.00	190.00
	TOTAL				190.00 W
	Add 1 % Water charges on "W"				1.90
	TOTAL				191.90 X
	Add GST on "X" (multiplying factor 0.1405)				26.96
	TOTAL				218.86 Y
	Add 15% CPOH on "Y"				32.83
	TOTAL				251.69 Z
	Add Cess @ 1% on "Z"				2.52
	Cost of 1 no.				254.21
	Say				254.20
	FOR DPA 30% LESS				**177.94**

18.87 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Equal Tee

18.87.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8824	Equal Tee for 15.88 mm outer dia SS pipe	each	1.00	175.00	175.00
	TOTAL				175.00 W
	Add 1 % Water charges on "W"				1.75
	TOTAL				176.75 X
	Add GST on "X" (multiplying factor 0.1405)				24.83
	TOTAL				201.58 Y
	Add 15% CPOH on "Y"				30.24
	TOTAL				231.82 Z

	Add Cess @ 1% on "Z"				2.32
	Cost of 1 no.				234.14
	Say				234.15
	FOR DPA 30% LESS				**163.905**

18.87.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
8825	Details of cost for 1 no. MATERIAL Equal Tee for 22.22 mm outer dia SS pipe	each	1.00	250.00	250.00
	TOTAL				250.00 W
	Add 1 % Water charges on "W"				2.50
	TOTAL				252.50 X
	Add GST on "X" (multiplying factor 0.1405)				35.48
	TOTAL				287.98 Y
	Add 15% CPOH on "Y"				43.20
	TOTAL				331.17 Z
	Add Cess @ 1% on "Z"				3.31
	Cost of 1 no.				334.48
	Say				334.50
	FOR DPA 30% LESS				**234.15**

18.87.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
8826	Details of cost for 1 no. MATERIAL Equal Tee for 28.58 mm outer dia SS pipe	each	1.00	295.00	295.00
	TOTAL				295.00 W
	Add 1 % Water charges on "W"				2.95
	TOTAL				297.95 X
	Add GST on "X" (multiplying factor 0.1405)				41.86
	TOTAL				339.81 Y
	Add 15% CPOH on "Y"				50.97
	TOTAL				390.78 Z
	Add Cess @ 1% on "Z"				3.91
	Cost of 1 no.				394.69
	Say				394.70
	FOR DPA 30% LESS				**276.29**

18.87.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
8827	Details of cost for 1 no. MATERIAL Equal Tee for 34.00 mm outer dia SS pipe	each	1.00	440.00	440.00
	TOTAL				440.00 W
	Add 1 % Water charges on "W"				4.40
	TOTAL				444.40 X
	Add GST on "X" (multiplying factor 0.1405)				62.44
	TOTAL				506.84 Y
	Add 15% CPOH on "Y"				76.03
	TOTAL				582.86 Z
	Add Cess @ 1% on "Z"				5.83
	Cost of 1 no.				588.69
	Say				588.70
	FOR DPA 30% LESS				**412.09**

18.87.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
8828	Details of cost for 1 no. MATERIAL Equal Tee for 42.70 mm outer dia SS pipe	each	1.00	695.00	695.00
	TOTAL				695.00 W

	Add 1 % Water charges on "W"				6.95
	TOTAL				701.95 X
	Add GST on "X" (multiplying factor 0.1405)				98.62
	TOTAL				800.57 Y
	Add 15% CPOH on "Y"				120.09
	TOTAL				920.66 Z
	Add Cess @ 1% on "Z"				9.21
	Cost of 1 no.				929.87
	Say				929.85
	FOR DPA 30% LESS				**650.895**

18.87.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8829	Equal Tee for 48.60 mm outer dia SS pipe	each	1.00	915.00	915.00
	TOTAL				915.00 W
	Add 1 % Water charges on "W"				9.15
	TOTAL				924.15 X
	Add GST on "X" (multiplying factor 0.1405)				129.84
	TOTAL				1053.99 Y
	Add 15% CPOH on "Y"				158.10
	TOTAL				1212.09 Z
	Add Cess @ 1% on "Z"				12.12
	Cost of 1 no.				1224.21
	Say				1224.20
	FOR DPA 30% LESS				**856.94**

18.92A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Equal Tee

18.92A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3897	Equal Tee for 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	500.00	500.00
	TOTAL				500.00 W
	Add 1 % Water charges on "W"				5.00
	TOTAL				505.00 X
	Add GST on "X" (multiplying factor 0.1405)				70.95
	TOTAL				575.95 Y
	Add 15% CPOH on "Y"				86.39
	TOTAL				662.35 Z
	Add Cess @ 1% on "Z"				6.62
	Cost of 1 no.				668.97
	Say				668.95
	FOR DPA 30% LESS				**468.265**

18.92A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3898	Equal Tee for 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	585.00	585.00
	TOTAL				585.00 W
	Add 1 % Water charges on "W"				5.85
	TOTAL				590.85 X
	Add GST on "X" (multiplying factor 0.1405)				83.01

	TOTAL				673.86 Y
	Add 15% CPOH on "Y"				101.08
	TOTAL				774.94 Z
	Add Cess @ 1% on "Z"				7.75
	Cost of 1 no.				782.69
	Say				782.70
	FOR DPA 30% LESS				**547.89**

18.92A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3899	Equal Tee for 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	720.00	720.00
	TOTAL				720.00 W
	Add 1 % Water charges on "W"				7.20
	TOTAL				727.20 X
	Add GST on "X" (multiplying factor 0.1405)				102.17
	TOTAL				829.37 Y
	Add 15% CPOH on "Y"				124.41
	TOTAL				953.78 Z
	Add Cess @ 1% on "Z"				9.54
	Cost of 1 no.				963.32
	Say				963.30
	FOR DPA 30% LESS				**674.31**

18.92A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3900	Equal Tee for 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45
	FOR DPA 30% LESS				**838.215**

18.92A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3901	Equal Tee for 42 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1250.00	1250.00
	TOTAL				1250.00 W
	Add 1 % Water charges on "W"				12.50
	TOTAL				1262.50 X
	Add GST on "X" (multiplying factor 0.1405)				177.38
	TOTAL				1439.88 Y
	Add 15% CPOH on "Y"				215.98
	TOTAL				1655.86 Z
	Add Cess @ 1% on "Z"				16.56
	Cost of 1 no.				1672.42
	Say				1672.40

	FOR DPA 30% LESS				1170.68

18.92A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3902	Equal Tee for 54 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1500.00	1500.00
	TOTAL				1500.00 W
	Add 1 % Water charges on "W"				15.00
	TOTAL				1515.00 X
	Add GST on "X" (multiplying factor 0.1405)				212.86
	TOTAL				1727.86 Y
	Add 15% CPOH on "Y"				259.18
	TOTAL				1987.04 Z
	Add Cess @ 1% on "Z"				19.87
	Cost of 1 no.				2006.91
	Say				2006.90
	FOR DPA 30% LESS				1404.83

18.88 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Reducing Tee

18.88.1 For 22.22 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8830	Reducing Tee for 22.22 mm X 15.88 mm outer dia SS	each	1.00	185.00	185.00
	TOTAL				185.00 W
	Add 1 % Water charges on "W"				1.85
	TOTAL				186.85 X
	Add GST on "X" (multiplying factor 0.1405)				26.25
	TOTAL				213.10 Y
	Add 15% CPOH on "Y"				31.97
	TOTAL				245.07 Z
	Add Cess @ 1% on "Z"				2.45
	Cost of 1 no.				247.52
	Say				247.50
	FOR DPA 30% LESS				173.25

18.88.2 For 28.58 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8831	Reducing Tee for 28.58 mm X 15.88 mm outer dia SS pipe	each	1.00	290.00	290.00
	TOTAL				290.00 W
	Add 1 % Water charges on "W"				2.90
	TOTAL				292.90 X
	Add GST on "X" (multiplying factor 0.1405)				41.15
	TOTAL				334.05 Y
	Add 15% CPOH on "Y"				50.11
	TOTAL				384.16 Z
	Add Cess @ 1% on "Z"				3.84
	Cost of 1 no.				388.00
	Say				388.00
	FOR DPA 30% LESS				271.6

18.88.3 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				

Code	Description	Unit	Quantity	Rate	Amount
8832	Reducing Tee for 28.58 mm X 22.22 mm outer dia SS pipe	each	1.00	290.00	290.00
	TOTAL				290.00 W
	Add 1 % Water charges on "W"				2.90
	TOTAL				292.90 X
	Add GST on "X" (multiplying factor 0.1405)				41.15
	TOTAL				334.05 Y
	Add 15% CPOH on "Y"				50.11
	TOTAL				384.16 Z
	Add Cess @ 1% on "Z"				3.84
	Cost of 1 no.				388.00
	Say				388.00
	FOR DPA 30% LESS				**271.6**

18.88.4 For 34.00 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8833	Reducing Tee for 34.00 mm X 15.88 mm outer dia SS pipe	each	1.00	440.00	440.00
	TOTAL				440.00 W
	Add 1 % Water charges on "W"				4.40
	TOTAL				444.40 X
	Add GST on "X" (multiplying factor 0.1405)				62.44
	TOTAL				506.84 Y
	Add 15% CPOH on "Y"				76.03
	TOTAL				582.86 Z
	Add Cess @ 1% on "Z"				5.83
	Cost of 1 no.				588.69
	Say				588.70
	FOR DPA 30% LESS				**412.09**

18.88.5 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8834	Reducing Tee for 34.00 mm X 22.22 mm outer dia SS pipe	each	1.00	440.00	440.00
	TOTAL				440.00 W
	Add 1 % Water charges on "W"				4.40
	TOTAL				444.40 X
	Add GST on "X" (multiplying factor 0.1405)				62.44
	TOTAL				506.84 Y
	Add 15% CPOH on "Y"				76.03
	TOTAL				582.86 Z
	Add Cess @ 1% on "Z"				5.83
	Cost of 1 no.				588.69
	Say				588.70

18.88.6 For 42.70 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8835	Reducing Tee for 34.00 mm X 28.58 mm outer dia SS pipe	each	1.00	440.00	440.00
	TOTAL				440.00 W
	Add 1 % Water charges on "W"				4.40
	TOTAL				444.40 X
	Add GST on "X" (multiplying factor 0.1405)				62.44
	TOTAL				506.84 Y
	Add 15% CPOH on "Y"				76.03
	TOTAL				582.86 Z
	Add Cess @ 1% on "Z"				5.83

Code	Description	Unit	Quantity	Rate	Amount
	Cost of 1 no.				588.69
	Say				588.70
	FOR DPA 30% LESS				**412.09**
18.88.7	**For 42.70 mm x 15.88 mm outer dia pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
8836	Reducing Tee for 42.70 mm X 15.88 mm outer dia SS pipe	each	1.00	690.00	690.00
	TOTAL				690.00 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.04 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20
	FOR DPA 30% LESS				**646.24**
18.88.8	**For 42.70 mm x 22.22 mm outer dia pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
8837	Reducing Tee for 42.70 mm X 22.22 mm outer dia SS pipe	each	1.00	690.00	690.00
	TOTAL				690.00 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.04 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20
	FOR DPA 30% LESS				**646.24**
18.88.9	**For 42.70 mm x 28.58 mm outer dia pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
8838	Reducing Tee for 42.70 mm X 28.58 mm outer dia SS pipe	each	1.00	690.00	690.00
	TOTAL				690.00 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.04 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20
	FOR DPA 30% LESS				**646.24**
18.88.10	**For 42.70 mm x 34.00 mm outer dia pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
8839	Reducing Tee for 42.70 mm X 34.00 mm outer dia SS pipe	each	1.00	690.00	690.00
	TOTAL				690.00 W

Code	Description	Unit	Quantity	Rate	Amount
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.04 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20
	FOR DPA 30% LESS				**646.24**

18.88.11 For 48.60 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8840	Reducing Tee for 48.60 mm X 15.88 mm outer dia SS pipe	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45
	FOR DPA 30% LESS				**838.215**

18.88.12 For 48.60 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8841	Reducing Tee for 48.60 mm X 22.22 mm outer dia SS pipe	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45
	FOR DPA 30% LESS				**838.215**

18.88.13 For 48.60 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8842	Reducing Tee for 48.60 mm X 28.58 mm outer dia SS pipe	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45

	FOR DPA 30% LESS				838.215
18.88.14	**For 48.60 mm x 34 mm outer dia pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
8843	Details of cost for 1 no. MATERIAL Reducing Tee for 48.60mm X 34.00 mm outer dia SS pipe	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45
	FOR DPA 30% LESS				838.215
18.88.15	**For 48.60 mm x 42.70 mm outer dia pipe**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
8844	Details of cost for 1 no. MATERIAL Reducing Tee for 48.60mm X 42.70mm outer dia SS pipe	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45
	FOR DPA 30% LESS				838.215

18.93A **Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.**

Reducing Tee

18.93A.1 **For 22 mm x 15 mm outer dia pipe**

Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
3903	Details of cost for 1 no. MATERIAL Reducing Tee for 22 mm x 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	575.00	575.00
	TOTAL				575.00 W
	Add 1 % Water charges on "W"				5.75
	TOTAL				580.75 X
	Add GST on "X" (multiplying factor 0.1405)				81.60
	TOTAL				662.35 Y
	Add 15% CPOH on "Y"				99.35
	TOTAL				761.70 Z
	Add Cess @ 1% on "Z"				7.62
	Cost of 1 no.				769.31
	Say				769.30
	FOR DPA 30% LESS				538.51

18.93A.2 **For 28 mm x 15 mm outer dia pipe**

Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				

Code	Description	Unit	Quantity	Rate	Amount
	MATERIAL				
3904	Reducing Tee for 28 mm X 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	715.00	715.00
	TOTAL				715.00 W
	Add 1 % Water charges on "W"				7.15
	TOTAL				722.15 X
	Add GST on "X" (multiplying factor 0.1405)				101.46
	TOTAL				823.61 Y
	Add 15% CPOH on "Y"				123.54
	TOTAL				947.15 Z
	Add Cess @ 1% on "Z"				9.47
	Cost of 1 no.				956.63
	Say				956.65
	FOR DPA 30% LESS				**669.655**

18.93A.3 For 28 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3905	Reducing Tee for 28 mm X 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95
	FOR DPA 30% LESS				**664.965**

18.93A.4 For 35 mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3906	Reducing Tee for 35 mm X 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	900.00	900.00
	TOTAL				900.00 W
	Add 1 % Water charges on "W"				9.00
	TOTAL				909.00 X
	Add GST on "X" (multiplying factor 0.1405)				127.71
	TOTAL				1036.71 Y
	Add 15% CPOH on "Y"				155.51
	TOTAL				1192.22 Z
	Add Cess @ 1% on "Z"				11.92
	Cost of 1 no.				1204.14
	Say				1204.15
	FOR DPA 30% LESS				**842.905**

18.93A.5 For 35 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3907	Reducing Tee for 35 mm X 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to				

	EN-10312	each	1.00	905.00	905.00
	TOTAL				905.00 W
	Add 1 % Water charges on "W"				9.05
	TOTAL				914.05 X
	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83
	Say				1210.85
	FOR DPA 30% LESS				**847.595**

18.93A.6 For 35 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
3908	Details of cost for 1 no. MATERIAL Reducing Tee for 35 mm X 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	915.00	915.00
	TOTAL				915.00 W
	Add 1 % Water charges on "W"				9.15
	TOTAL				924.15 X
	Add GST on "X" (multiplying factor 0.1405)				129.84
	TOTAL				1053.99 Y
	Add 15% CPOH on "Y"				158.10
	TOTAL				1212.09 Z
	Add Cess @ 1% on "Z"				12.12
	Cost of 1 no.				1224.21
	Say				1224.20
	FOR DPA 30% LESS				**856.94**

18.93A.7 For 42 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
3909	Details of cost for 1 no. MATERIAL Reducing Tee for 42 mm X 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1280.00	1280.00
	TOTAL				1280.00 W
	Add 1 % Water charges on "W"				12.80
	TOTAL				1292.80 X
	Add GST on "X" (multiplying factor 0.1405)				181.64
	TOTAL				1474.44 Y
	Add 15% CPOH on "Y"				221.17
	TOTAL				1695.60 Z
	Add Cess @ 1% on "Z"				16.96
	Cost of 1 no.				1712.56
	Say				1712.55
	FOR DPA 30% LESS				**1198.785**

18.93A.8 For 42 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
3910	Details of cost for 1 no. MATERIAL Reducing Tee for 42 mm X 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1265.00	1265.00
	TOTAL				1265.00 W
	Add 1 % Water charges on "W"				12.65
	TOTAL				1277.65 X
	Add GST on "X" (multiplying				

	factor 0.1405)				179.51
	TOTAL				1457.16 Y
	Add 15% CPOH on "Y"				218.57
	TOTAL				1675.73 Z
	Add Cess @ 1% on "Z"				16.76
	Cost of 1 no.				1692.49
	Say				1692.50
	FOR DPA 30% LESS				**1184.75**

18.93A.9 For 42 mm x 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3911	Reducing Tee for 42 mm X 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1290.00	1290.00
	TOTAL				1290.00 W
	Add 1 % Water charges on "W"				12.90
	TOTAL				1302.90 X
	Add GST on "X" (multiplying factor 0.1405)				183.06
	TOTAL				1485.96 Y
	Add 15% CPOH on "Y"				222.89
	TOTAL				1708.85 Z
	Add Cess @ 1% on "Z"				17.09
	Cost of 1 no.				1725.94
	Say				1725.95
	FOR DPA 30% LESS				**1208.165**

18.93A.10 For 54 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3912	Reducing Tee for 54 mm X 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1500.00	1500.00
	TOTAL				1500.00 W
	Add 1 % Water charges on "W"				15.00
	TOTAL				1515.00 X
	Add GST on "X" (multiplying factor 0.1405)				212.86
	TOTAL				1727.86 Y
	Add 15% CPOH on "Y"				259.18
	TOTAL				1987.04 Z
	Add Cess @ 1% on "Z"				19.87
	Cost of 1 no.				2006.91
	Say				2006.90
	FOR DPA 30% LESS				**1404.83**

18.93A.11 For 54 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3913	Reducing Tee for 54 mm X 28 mm outer dia SS pipe of grade 316 conforming to IS 6911:2017	each	1.00	1540.00	1540.00
	TOTAL				1540.00 W
	Add 1 % Water charges on "W"				15.40
	TOTAL				1555.40 X
	Add GST on "X" (multiplying factor 0.1405)				218.53
	TOTAL				1773.93 Y
	Add 15% CPOH on "Y"				266.09
	TOTAL				2040.02 Z
	Add Cess @ 1% on "Z"				20.40

	Cost of 1 no.				2060.42
	Say				2060.40
	FOR DPA 30% LESS				**1442.28**

18.93A.12 For 54 mm x 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3914	Reducing Tee for 54 mm X 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1550.00	1550.00
	TOTAL				1550.00 W
	Add 1 % Water charges on "W"				15.50
	TOTAL				1565.50 X
	Add GST on "X" (multiplying factor 0.1405)				219.95
	TOTAL				1785.45 Y
	Add 15% CPOH on "Y"				267.82
	TOTAL				2053.27 Z
	Add Cess @ 1% on "Z"				20.53
	Cost of 1 no.				2073.80
	Say				2073.80
	FOR DPA 30% LESS				**1451.66**

18.93A.13 For 54 mm x 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3915	Reducing Tee for 54mm X 42mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1570.00	1570.00
	TOTAL				1570.00 W
	Add 1 % Water charges on "W"				15.70
	TOTAL				1585.70 X
	Add GST on "X" (multiplying factor 0.1405)				222.79
	TOTAL				1808.49 Y
	Add 15% CPOH on "Y"				271.27
	TOTAL				2079.76 Z
	Add Cess @ 1% on "Z"				20.80
	Cost of 1 no.				2100.56
	Say				2100.55
	FOR DPA 30% LESS				**1470.385**

18.89 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Male Thread Tee

18.89.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8845	Stainless steel Male thread Tee for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	185.00	185.00
	TOTAL				185.00 W
	Add 1 % Water charges on "W"				1.85
	TOTAL				186.85 X
	Add GST on "X" (multiplying factor 0.1405)				26.25
	TOTAL				213.10 Y
	Add 15% CPOH on "Y"				31.97
	TOTAL				245.07 Z
	Add Cess @ 1% on "Z"				2.45
	Cost of 1 no.				247.52

Code	Description	Unit	Quantity	Rate	Amount
	Say				247.50
	FOR DPA 30% LESS				**173.25**

18.89.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8846	Stainless steel Male thread Tee for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	215.00	215.00
	TOTAL				215.00 W
	Add 1 % Water charges on "W"				2.15
	TOTAL				217.15 X
	Add GST on "X" (multiplying factor 0.1405)				30.51
	TOTAL				247.66 Y
	Add 15% CPOH on "Y"				37.15
	TOTAL				284.81 Z
	Add Cess @ 1% on "Z"				2.85
	Cost of 1 no.				287.66
	Say				287.65
	FOR DPA 30% LESS				**201.355**

18.89.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8847	Stainless steel Male thread Tee for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	215.00	215.00
	TOTAL				215.00 W
	Add 1 % Water charges on "W"				2.15
	TOTAL				217.15 X
	Add GST on "X" (multiplying factor 0.1405)				30.51
	TOTAL				247.66 Y
	Add 15% CPOH on "Y"				37.15
	TOTAL				284.81 Z
	Add Cess @ 1% on "Z"				2.85
	Cost of 1 no.				287.66
	Say				287.65
	FOR DPA 30% LESS				**201.355**

18.89.4 For 28.58 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8848	Stainless steel Male thread Tee for 28.58 mm outer dia X 15 mm nominal dia threaded	each	1.00	295.00	295.00
	TOTAL				295.00 W
	Add 1 % Water charges on "W"				2.95
	TOTAL				297.95 X
	Add GST on "X" (multiplying factor 0.1405)				41.86
	TOTAL				339.81 Y
	Add 15% CPOH on "Y"				50.97
	TOTAL				390.78 Z
	Add Cess @ 1% on "Z"				3.91
	Cost of 1 no.				394.69
	Say				394.70
	FOR DPA 30% LESS				**276.29**

18.89.5 For 28.58 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8849	Stainless steel Male thread Tee for				

Code	Description	Unit	Quantity	Rate	Amount
	28.58 mm outer dia X 20 mm nominal dia threaded	each	1.00	295.00	295.00
	TOTAL				295.00 W
	Add 1 % Water charges on "W"				2.95
	TOTAL				297.95 X
	Add GST on "X" (multiplying factor 0.1405)				41.86
	TOTAL				339.81 Y
	Add 15% CPOH on "Y"				50.97
	TOTAL				390.78 Z
	Add Cess @ 1% on "Z"				3.91
	Cost of 1 no.				394.69
	Say				394.70
	FOR DPA 30% LESS				**276.29**

18.89.6 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8850	Stainless steel Male thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	1.00	295.00	295.00
	TOTAL				295.00 W
	Add 1 % Water charges on "W"				2.95
	TOTAL				297.95 X
	Add GST on "X" (multiplying factor 0.1405)				41.86
	TOTAL				339.81 Y
	Add 15% CPOH on "Y"				50.97
	TOTAL				390.78 Z
	Add Cess @ 1% on "Z"				3.91
	Cost of 1 no.				394.69
	Say				394.70
	FOR DPA 30% LESS				**276.29**

18.89.7 For 34.00 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8851	Stainless steel Male thread Tee for 34.00 mm outer dia X 15 mm nominal dia threaded	each	1.00	465.00	465.00
	TOTAL				465.00 W
	Add 1 % Water charges on "W"				4.65
	TOTAL				469.65 X
	Add GST on "X" (multiplying factor 0.1405)				65.99
	TOTAL				535.64 Y
	Add 15% CPOH on "Y"				80.35
	TOTAL				615.98 Z
	Add Cess @ 1% on "Z"				6.16
	Cost of 1 no.				622.14
	Say				622.15
	FOR DPA 30% LESS				**435.505**

18.89.8 For 34.00 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8852	Stainless steel Male thread Tee for 34.00 mm outer dia X 20 mm nominal dia threaded	each	1.00	465.00	465.00
	TOTAL				465.00 W
	Add 1 % Water charges on "W"				4.65
	TOTAL				469.65 X
	Add GST on "X" (multiplying				

	factor 0.1405)				65.99
	TOTAL				535.64 Y
	Add 15% CPOH on "Y"				80.35
	TOTAL				615.98 Z
	Add Cess @ 1% on "Z"				6.16
	Cost of 1 no.				622.14
	Say				622.15
	FOR DPA 30% LESS				**435.505**

18.89.9 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8853	Stainless steel Male thread Tee for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	465.00	465.00
	TOTAL				465.00 W
	Add 1 % Water charges on "W"				4.65
	TOTAL				469.65 X
	Add GST on "X" (multiplying factor 0.1405)				65.99
	TOTAL				535.64 Y
	Add 15% CPOH on "Y"				80.35
	TOTAL				615.98 Z
	Add Cess @ 1% on "Z"				6.16
	Cost of 1 no.				622.14
	Say				622.15
	FOR DPA 30% LESS				**435.505**

18.89.10 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8854	Stainless steel Male thread Tee for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	465.00	465.00
	TOTAL				465.00 W
	Add 1 % Water charges on "W"				4.65
	TOTAL				469.65 X
	Add GST on "X" (multiplying factor 0.1405)				65.99
	TOTAL				535.64 Y
	Add 15% CPOH on "Y"				80.35
	TOTAL				615.98 Z
	Add Cess @ 1% on "Z"				6.16
	Cost of 1 no.				622.14
	Say				622.15
	FOR DPA 30% LESS				**435.505**

18.89.11 For 42.70 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8855	Stainless steel Male thread Tee for 42.70 mm outer dia X 15 mm nominal dia threaded	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95

	FOR DPA 30% LESS				**664.965**

18.89.12 For 42.70 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8856	Stainless steel Male thread Tee for 42.70 mm outer dia X 20 mm nominal dia threaded	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95
	FOR DPA 30% LESS				**664.965**

18.89.13 For 42.70 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8857	Stainless steel Male thread Tee for 42.70 mm outer dia X 25 mm nominal dia threaded	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95
	FOR DPA 30% LESS				**664.965**

18.89.14 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8858	Stainless steel Male thread Tee for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95
	FOR DPA 30% LESS				**664.965**

18.89.15 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8859	Stainless steel Male thread Tee for 42.70 mm outer dia X 40 mm nominal				

	dia threaded	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95
	FOR DPA 30% LESS				**664.965**

18.89.16 For 48.60 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8860	Stainless steel Male thread Tee for 48.60 mm outer dia X 15 mm nominal dia threaded	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45
	FOR DPA 30% LESS				**838.215**

18.89.17 For 48.60 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8861	Stainless steel Male thread Tee for 48.60 mm outer dia X 20 mm nominal dia threaded	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45
	FOR DPA 30% LESS				**838.215**

18.89.18 For 48.60 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8862	Stainless steel Male thread Tee for 48.60 mm outer dia X 25 mm nominal dia threaded	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y

	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45
	FOR DPA 30% LESS				**838.215**

18.89.19 For 48.60 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8863	Stainless steel Male thread Tee for 48.60 mm outer dia X 32 mm nominal dia threaded	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45
	FOR DPA 30% LESS				**838.215**

18.89.20 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8864	Stainless steel Male thread Tee for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45
	FOR DPA 30% LESS				**838.215**

18.89.21 For 48.60 mm outer dia x 50 mm nominal dia threaded

	Details of cost for 1 no.				
	MATERIAL				
8865	Stainless steel Male thread Tee for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45
	FOR DPA 30% LESS				**838.215**

18.90 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Thread Tee

18.90.1 For 15.88 mm outer dia x15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8866	Stainless steel Female thread Tee for 15.88 mm outer dia X 15 mm nominal dia hreaded each 1.00 185.00 185.00				
	TOTAL				185.00 W
	Add 1 % Water charges on "W"				1.85
	TOTAL				186.85 X
	Add GST on "X" (multiplying factor 0.1405)				26.25
	TOTAL				213.10 Y
	Add 15% CPOH on "Y"				31.97
	TOTAL				245.07 Z
	Add Cess @ 1% on "Z"				2.45
	Cost of 1 no.				247.52
	Say				247.50
	FOR DPA 30% LESS				**173.25**

18.90.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8867	Stainless steel Female thread Tee for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	205.00	205.00
	TOTAL				205.00 W
	Add 1 % Water charges on "W"				2.05
	TOTAL				207.05 X
	Add GST on "X" (multiplying factor 0.1405)				29.09
	TOTAL				236.14 Y
	Add 15% CPOH on "Y"				35.42
	TOTAL				271.56 Z
	Add Cess @ 1% on "Z"				2.72
	Cost of 1 no.				274.28
	Say				274.30
	FOR DPA 30% LESS				**192.01**

18.90.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8868	Stainless steel Female thread Tee for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	205.00	205.00
	TOTAL				205.00 W
	Add 1 % Water charges on "W"				2.05
	TOTAL				207.05 X
	Add GST on "X" (multiplying factor 0.1405)				29.09
	TOTAL				236.14 Y
	Add 15% CPOH on "Y"				35.42
	TOTAL				271.56 Z
	Add Cess @ 1% on "Z"				2.72
	Cost of 1 no.				274.28
	Say				274.30
	FOR DPA 30% LESS				**192.01**

18.90.4 For 28.58 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount

8869	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 28.58 mm outer dia X 15 mm nominal dia threaded	each	1.00	275.00	275.00
	TOTAL				275.00 W
	Add 1 % Water charges on "W"				2.75
	TOTAL				277.75 X
	Add GST on "X" (multiplying factor 0.1405)				39.02
	TOTAL				316.77 Y
	Add 15% CPOH on "Y"				47.52
	TOTAL				364.29 Z
	Add Cess @ 1% on "Z"				3.64
	Cost of 1 no.				367.93
	Say				367.95
	FOR DPA 30% LESS				**257.565**
18.90.5	**For 28.58 mm outer dia x 20 mm nominal dia threaded**				
8870	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	1.00	275.00	275.00
	TOTAL				275.00 W
	Add 1 % Water charges on "W"				2.75
	TOTAL				277.75 X
	Add GST on "X" (multiplying factor 0.1405)				39.02
	TOTAL				316.77 Y
	Add 15% CPOH on "Y"				47.52
	TOTAL				364.29 Z
	Add Cess @ 1% on "Z"				3.64
	Cost of 1 no.				367.93
	Say				367.95
	FOR DPA 30% LESS				**257.565**
18.90.6	**For 28.58 mm outer dia x 25 mm nominal dia threaded**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
8871	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 28.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	275.00	275.00
	TOTAL				275.00 W
	Add 1 % Water charges on "W"				2.75
	TOTAL				277.75 X
	Add GST on "X" (multiplying factor 0.1405)				39.02
	TOTAL				316.77 Y
	Add 15% CPOH on "Y"				47.52
	TOTAL				364.29 Z
	Add Cess @ 1% on "Z"				3.64
	Cost of 1 no.				367.93
	Say				367.95
	FOR DPA 30% LESS				**257.565**
18.90.7	**For 34.00 mm outer dia x 15 mm nominal dia threaded**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
8872	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 34.00 mm outer dia X 15 mm nominal dia threaded	each	1.00	445.00	445.00
	TOTAL				445.00 W
	Add 1 % Water charges on "W"				4.45

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				449.45 X
	Add GST on "X" (multiplying factor 0.1405)				63.15
	TOTAL				512.60 Y
	Add 15% CPOH on "Y"				76.89
	TOTAL				589.49 Z
	Add Cess @ 1% on "Z"				5.89
	Cost of 1 no.				595.38
	Say				595.40
	FOR DPA 30% LESS				**416.78**

18.90.8 For 34.00 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8873	Stainless steel Female thread Tee for 34.00 mm outer dia X 20 mm nominal dia threaded	each	1.00	445.00	445.00
	TOTAL				445.00 W
	Add 1 % Water charges on "W"				4.45
	TOTAL				449.45 X
	Add GST on "X" (multiplying factor 0.1405)				63.15
	TOTAL				512.60 Y
	Add 15% CPOH on "Y"				76.89
	TOTAL				589.49 Z
	Add Cess @ 1% on "Z"				5.89
	Cost of 1 no.				595.38
	Say				595.40
	FOR DPA 30% LESS				**416.78**

18.90.9 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8874	Stainless steel Female thread Tee for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	445.00	445.00
	TOTAL				445.00 W
	Add 1 % Water charges on "W"				4.45
	TOTAL				449.45 X
	Add GST on "X" (multiplying factor 0.1405)				63.15
	TOTAL				512.60 Y
	Add 15% CPOH on "Y"				76.89
	TOTAL				589.49 Z
	Add Cess @ 1% on "Z"				5.89
	Cost of 1 no.				595.38
	Say				595.40
	FOR DPA 30% LESS				**416.78**

18.90.10 For34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8875	Stainless steel Female thread Tee for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	445.00	445.00
	TOTAL				445.00 W
	Add 1 % Water charges on "W"				4.45
	TOTAL				449.45 X
	Add GST on "X" (multiplying factor 0.1405)				63.15
	TOTAL				512.60 Y
	Add 15% CPOH on "Y"				76.89
	TOTAL				589.49 Z
	Add Cess @ 1% on "Z"				5.89

	Cost of 1 no.				595.38
	Say				595.40
	FOR DPA 30% LESS				**416.78**

18.90.11 For 42.70 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8876	Stainless steel Female thread Tee for 42.70 mm outer dia X 15 mm nominal dia threaded	each	1.00	700.00	700.00
	TOTAL				700.00 W
	Add 1 % Water charges on "W"				7.00
	TOTAL				707.00 X
	Add GST on "X" (multiplying factor 0.1405)				99.33
	TOTAL				806.33 Y
	Add 15% CPOH on "Y"				120.95
	TOTAL				927.28 Z
	Add Cess @ 1% on "Z"				9.27
	Cost of 1 no.				936.56
	Say				936.55
	FOR DPA 30% LESS				**655.585**

18.90.12 For 42.70 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8877	Stainless steel Female thread Tee for 42.70 mm outer dia X 20 mm nominal dia threaded	each	1.00	700.00	700.00
	TOTAL				700.00 W
	Add 1 % Water charges on "W"				7.00
	TOTAL				707.00 X
	Add GST on "X" (multiplying factor 0.1405)				99.33
	TOTAL				806.33 Y
	Add 15% CPOH on "Y"				120.95
	TOTAL				927.28 Z
	Add Cess @ 1% on "Z"				9.27
	Cost of 1 no.				936.56
	Say				936.55
	FOR DPA 30% LESS				**655.585**

18.90.13 For 42.70 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8878	Stainless steel Female thread Tee for 42.70 mm outer dia X 25 mm nominal dia threaded	each	1.00	700.00	700.00
	TOTAL				700.00 W
	Add 1 % Water charges on "W"				7.00
	TOTAL				707.00 X
	Add GST on "X" (multiplying factor 0.1405)				99.33
	TOTAL				806.33 Y
	Add 15% CPOH on "Y"				120.95
	TOTAL				927.28 Z
	Add Cess @ 1% on "Z"				9.27
	Cost of 1 no.				936.56
	Say				936.55
	FOR DPA 30% LESS				**655.585**

18.90.14 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				

8879	Stainless steel Female thread Tee for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	700.00	700.00
	TOTAL				700.00 W
	Add 1 % Water charges on "W"				7.00
	TOTAL				707.00 X
	Add GST on "X" (multiplying factor 0.1405)				99.33
	TOTAL				806.33 Y
	Add 15% CPOH on "Y"				120.95
	TOTAL				927.28 Z
	Add Cess @ 1% on "Z"				9.27
	Cost of 1 no.				936.56
	Say				936.55
	FOR DPA 30% LESS				**655.585**

18.90.15 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8880	Stainless steel Female thread Tee for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	700.00	700.00
	TOTAL				700.00 W
	Add 1 % Water charges on "W"				7.00
	TOTAL				707.00 X
	Add GST on "X" (multiplying factor 0.1405)				99.33
	TOTAL				806.33 Y
	Add 15% CPOH on "Y"				120.95
	TOTAL				927.28 Z
	Add Cess @ 1% on "Z"				9.27
	Cost of 1 no.				936.56
	Say				936.55
	FOR DPA 30% LESS				**655.585**

18.90.16 For 48.60 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8881	Stainless steel Female thread Tee for 48.60 mm outer dia X 15 mm nominal dia threaded	each	1.00	905.00	905.00
	TOTAL				905.00 W
	Add 1 % Water charges on "W"				9.05
	TOTAL				914.05 X
	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83
	Say				1210.85
	FOR DPA 30% LESS				**847.595**

18.90.17 For 48.60 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8882	Stainless steel Female thread Tee for 48.60 mm outer dia X 20 mm nominal dia threaded	each	1.00	905.00	905.00
	TOTAL				905.00 W
	Add 1 % Water charges on "W"				9.05
	TOTAL				914.05 X

	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83
	Say				1210.85
	FOR DPA 30% LESS				**847.595**

18.90.18 For 48.60 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8883	Stainless steel Female thread Tee for 48.60 mm outer dia X 25 mm nominal dia threaded	each	1.00	905.00	905.00
	TOTAL				905.00 W
	Add 1 % Water charges on "W"				9.05
	TOTAL				914.05 X
	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83
	Say				1210.85
	FOR DPA 30% LESS				**847.595**

18.90.19 For 48.60 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8884	Stainless steel Female thread Tee for 48.60 mm outer dia X 32 mm nominal dia threaded	each	1.00	905.00	905.00
	TOTAL				905.00 W
	Add 1 % Water charges on "W"				9.05
	TOTAL				914.05 X
	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83
	Say				1210.85
	FOR DPA 30% LESS				**847.595**

18.90.20 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8885	Stainless steel Female thread Tee for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	905.00	905.00
	TOTAL				905.00 W
	Add 1 % Water charges on "W"				9.05
	TOTAL				914.05 X
	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83

	Say				1210.85
	FOR DPA 30% LESS				**847.595**

18.90.21 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8886	Stainless steel Female thread Tee for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	905.00	905.00
	TOTAL				905.00 W
	Add 1 % Water charges on "W"				9.05
	TOTAL				914.05 X
	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83
	Say				1210.85
	FOR DPA 30% LESS				**847.595**

18.95A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Thread Tee

18.95A.1 For 15 mm outer dia x 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
3916	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 15 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	560.00	560.00
	TOTAL				560.00 W
	Add 1 % Water charges on "W"				5.60
	TOTAL				565.60 X
	Add GST on "X" (multiplying factor 0.1405)				79.47
	TOTAL				645.07 Y
	Add 15% CPOH on "Y"				96.76
	TOTAL				741.83 Z
	Add Cess @ 1% on "Z"				7.42
	Cost of 1 no.				749.25
	Say				749.25
	FOR DPA 30% LESS				**524.475**

18.95A.2 For 22mm outer dia x 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3917	Stainless steel Female thread Tee for 22 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	615.00	615.00
	TOTAL				615.00 W
	Add 1 % Water charges on "W"				6.15
	TOTAL				621.15 X
	Add GST on "X" (multiplying factor 0.1405)				87.27
	TOTAL				708.42 Y
	Add 15% CPOH on "Y"				106.26
	TOTAL				814.68 Z
	Add Cess @ 1% on "Z"				8.15
	Cost of 1 no.				822.83

	Say				822.85
	FOR DPA 30% LESS				**575.995**

18.95A.3 For 22mm outer dia x 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3918	Stainless steel Female thread Tee for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	690.00	690.00
	TOTAL				690.00 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.04 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20
	FOR DPA 30% LESS				**646.24**

18.95A.4 For 28 mm outer dia x 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3919	Stainless steel Female thread Tee for 28 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	730.00	730.00
	TOTAL				730.00 W
	Add 1 % Water charges on "W"				7.30
	TOTAL				737.30 X
	Add GST on "X" (multiplying factor 0.1405)				103.59
	TOTAL				840.89 Y
	Add 15% CPOH on "Y"				126.13
	TOTAL				967.02 Z
	Add Cess @ 1% on "Z"				9.67
	Cost of 1 no.				976.69
	Say				976.70
	FOR DPA 30% LESS				**683.69**

18.95A.5 For 28 mm outer dia x 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3920	Stainless steel Female thread Tee for 28 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	755.00	755.00
	TOTAL				755.00 W
	Add 1 % Water charges on "W"				7.55
	TOTAL				762.55 X
	Add GST on "X" (multiplying factor 0.1405)				107.14
	TOTAL				869.69 Y
	Add 15% CPOH on "Y"				130.45
	TOTAL				1000.14 Z
	Add Cess @ 1% on "Z"				10.00
	Cost of 1 no.				1010.14

	Say				1010.15
	FOR DPA 30% LESS				**707.105**

18.95A 6 For 28 mm outer dia x 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3921	Stainless steel Female thread Tee for 28 mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	840.00	840.00
	TOTAL				840.00 W
	Add 1 % Water charges on "W"				8.40
	TOTAL				848.40 X
	Add GST on "X" (multiplying factor 0.1405)				119.20
	TOTAL				967.60 Y
	Add 15% CPOH on "Y"				145.14
	TOTAL				1112.74 Z
	Add Cess @ 1% on "Z"				11.13
	Cost of 1 no.				1123.87
	Say				1123.85
	FOR DPA 30% LESS				**786.695**

18.95A.7 For 35 mm outer dia x 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3922	Stainless steel Female thread Tee for 35 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	845.00	845.00
	TOTAL				845.00 W
	Add 1 % Water charges on "W"				8.45
	TOTAL				853.45 X
	Add GST on "X" (multiplying factor 0.1405)				119.91
	TOTAL				973.36 Y
	Add 15% CPOH on "Y"				146.00
	TOTAL				1119.36 Z
	Add Cess @ 1% on "Z"				11.19
	Cost of 1 no.				1130.56
	Say				1130.55
	FOR DPA 30% LESS				**791.385**

18.95A.8 For 35 mm outer dia x 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3923	Stainless steel Female thread Tee for 35 mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1159.00	1159.00
	TOTAL				1159.00 W
	Add 1 % Water charges on "W"				11.59
	TOTAL				1170.59 X
	Add GST on "X" (multiplying factor 0.1405)				164.47
	TOTAL				1335.06 Y
	Add 15% CPOH on "Y"				200.26
	TOTAL				1535.32 Z
	Add Cess @ 1% on "Z"				15.35
	Cost of 1 no.				1550.67
	Say				1550.65
	FOR DPA 30% LESS				**1085.455**

18.95A.9 For 42 mm outer dia x 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3924	Stainless steel Female thread Tee for 42 mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1346.00	1346.00
	TOTAL				1346.00 W
	Add 1 % Water charges on "W"				13.46
	TOTAL				1359.46 X
	Add GST on "X" (multiplying factor 0.1405)				191.00
	TOTAL				1550.46 Y
	Add 15% CPOH on "Y"				232.57
	TOTAL				1783.03 Z
	Add Cess @ 1% on "Z"				17.83
	Cost of 1 no.				1800.86
	Say				1800.85
	FOR DPA 30% LESS				**1260.595**

18.95A.10 For 54 mm outer dia x 1-1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3925	Stainless steel Female thread Tee for 54 mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1920.00	1920.00
	TOTAL				1920.00 W
	Add 1 % Water charges on "W"				19.20
	TOTAL				1939.20 X
	Add GST on "X" (multiplying factor 0.1405)				272.46
	TOTAL				2211.66 Y
	Add 15% CPOH on "Y"				331.75
	TOTAL				2543.41 Z
	Add Cess @ 1% on "Z"				25.43
	Cost of 1 no.				2568.84
	Say				2568.85
	FOR DPA 30% LESS				**1798.195**

18.95A 11 For 54 mm outer dia x 2" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3926	Stainless steel Female thread Tee for 54 mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2307.00	2307.00
	TOTAL				2307.00 W
	Add 1 % Water charges on "W"				23.07
	TOTAL				2330.07 X
	Add GST on "X" (multiplying factor 0.1405)				327.37
	TOTAL				2657.44 Y
	Add 15% CPOH on "Y"				398.62
	TOTAL				3056.06 Z
	Add Cess @ 1% on "Z"				30.56
	Cost of 1 no.				3086.62
	Say				3086.60
	FOR DPA 30% LESS				**2160.62**

18.91 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Thread Connector/ Adapter

18.91.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8887	Stainless steel Female threaded Connector/Adapter for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	195.00	195.00
	TOTAL				195.00 W
	Add 1 % Water charges on "W"				1.95
	TOTAL				196.95 X
	Add GST on "X" (multiplying factor 0.1405)				27.67
	TOTAL				224.62 Y
	Add 15% CPOH on "Y"				33.69
	TOTAL				258.31 Z
	Add Cess @ 1% on "Z"				2.58
	Cost of 1 no.				260.90
	Say				260.90
	FOR DPA 30% LESS				**182.63**

18.91.2 For 22.22 mm outer dia x 15 mmnominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no. MATERIAL				
8888	Stainless steel Female threaded Connector/Adapter for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	230.00	230.00
	TOTAL				230.00 W
	Add 1 % Water charges on "W"				2.30
	TOTAL				232.30 X
	Add GST on "X" (multiplying factor 0.1405)				32.64
	TOTAL				264.94 Y
	Add 15% CPOH on "Y"				39.74
	TOTAL				304.68 Z
	Add Cess @ 1% on "Z"				3.05
	Cost of 1 no.				307.73
	Say				307.75
	FOR DPA 30% LESS				**215.425**

18.91.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8889	Stainless steel Female threaded Connector/Adapter for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	240.00	240.00
	TOTAL				240.00 W
	Add 1 % Water charges on "W"				2.40
	TOTAL				242.40 X
	Add GST on "X" (multiplying factor 0.1405)				34.06
	TOTAL				276.46 Y
	Add 15% CPOH on "Y"				41.47
	TOTAL				317.93 Z
	Add Cess @ 1% on "Z"				3.18
	Cost of 1 no.				321.11
	Say				321.10
	FOR DPA 30% LESS				**224.77**

18.91.4 For 28.58 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				

8890	Stainless steel Female threaded Connector/Adapter for 28.58 mm outer dia X 15 mm nominal dia threaded	each	1.00	277.00	277.00
	TOTAL				277.00 W
	Add 1 % Water charges on "W"				2.77
	TOTAL				279.77 X
	Add GST on "X" (multiplying factor 0.1405)				39.31
	TOTAL				319.08 Y
	Add 15% CPOH on "Y"				47.86
	TOTAL				366.94 Z
	Add Cess @ 1% on "Z"				3.67
	Cost of 1 no.				370.61
	Say				370.60
	Details of cost for 1 no.				
	MATERIAL				
8891	Stainless steel Female threaded Connector/Adapter for 28.58 mm outer dia X 20 mm nominal dia threaded	each	1.00	290.00	290.00
	TOTAL				290.00 W
	Add 1 % Water charges on "W"				2.90
	TOTAL				292.90 X
	Add GST on "X" (multiplying factor 0.1405)				41.15
	TOTAL				334.05 Y
	Add 15% CPOH on "Y"				50.11
	TOTAL				384.16 Z
	Add Cess @ 1% on "Z"				3.84
	Cost of 1 no.				388.00
	Say				388.00
	FOR DPA 30% LESS				**271.6**

18.91.6 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8892	Stainless steel Female threaded Connector/Adapter for 28.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	355.00	355.00
	TOTAL				355.00 W
	Add 1 % Water charges on "W"				3.55
	TOTAL				358.55 X
	Add GST on "X" (multiplying factor 0.1405)				50.38
	TOTAL				408.93 Y
	Add 15% CPOH on "Y"				61.34
	TOTAL				470.27 Z
	Add Cess @ 1% on "Z"				4.70
	Cost of 1 no.				474.97
	Say				474.95
	FOR DPA 30% LESS				**332.465**

18.91.7 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8893	Stainless steel Female threaded Connector/Adapter for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	410.00	410.00
	TOTAL				410.00 W
	Add 1 % Water charges on "W"				4.10
	TOTAL				414.10 X
	Add GST on "X" (multiplying factor 0.1405)				58.18
	TOTAL				472.28 Y
	Add 15% CPOH on "Y"				70.84
	TOTAL				543.12 Z

Code	Description	Unit	Quantity	Rate	Amount
	Add Cess @ 1% on "Z"				5.43
	Cost of 1 no.				548.55
	Say				548.55
	FOR DPA 30% LESS				**383.985**

18.91.8 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8894	Stainless steel Female threaded Connector/Adapter for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	540.00	540.00
	TOTAL				540.00 W
	Add 1 % Water charges on "W"				5.40
	TOTAL				545.40 X
	Add GST on "X" (multiplying factor 0.1405)				76.63
	TOTAL				622.03 Y
	Add 15% CPOH on "Y"				93.30
	TOTAL				715.33 Z
	Add Cess @ 1% on "Z"				7.15
	Cost of 1 no.				722.49
	Say				722.50
	FOR DPA 30% LESS				**505.75**

18.91.9 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8895	Stainless steel Female threaded Connector/Adapter for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	595.00	595.00
	TOTAL				595.00 W
	Add 1 % Water charges on "W"				5.95
	TOTAL				600.95 X
	Add GST on "X" (multiplying factor 0.1405)				84.43
	TOTAL				685.38 Y
	Add 15% CPOH on "Y"				102.81
	TOTAL				788.19 Z
	Add Cess @ 1% on "Z"				7.88
	Cost of 1 no.				796.07
	Say				796.05
	Details of cost for 1 no.				
	MATERIAL				
8896	Stainless steel Female threaded Connector/Adapter for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	695.00	695.00
	TOTAL				695.00 W
	Add 1 % Water charges on "W"				6.95
	TOTAL				701.95 X
	Add GST on "X" (multiplying factor 0.1405)				98.62
	TOTAL				800.57 Y
	Add 15% CPOH on "Y"				120.09
	TOTAL				920.66 Z
	Add Cess @ 1% on "Z"				9.21
	Cost of 1 no.				929.87
	Say				929.85
	FOR DPA 30% LESS				**650.895**

18.91.11 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8897	Stainless steel Female threaded Connector/Adapter for 48.60 mm outer				

	dia X 40 mm nominal dia threaded	each	1.00	845.00	845.00
	TOTAL				845.00 W
	Add 1 % Water charges on "W"				8.45
	TOTAL				853.45 X
	Add GST on "X" (multiplying factor 0.1405)				119.91
	TOTAL				973.36 Y
	Add 15% CPOH on "Y"				146.00
	TOTAL				1119.36 Z
	Add Cess @ 1% on "Z"				11.19
	Cost of 1 no.				1130.56
	Say				1130.55
	FOR DPA 30% LESS				**791.385**

18.91.12 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
8898	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	975.00	975.00
	TOTAL				975.00 W
	Add 1 % Water charges on "W"				9.75
	TOTAL				984.75 X
	Add GST on "X" (multiplying factor 0.1405)				138.36
	TOTAL				1123.11 Y
	Add 15% CPOH on "Y"				168.47
	TOTAL				1291.57 Z
	Add Cess @ 1% on "Z"				12.92
	Cost of 1 no.				1304.49
	Say				1304.50
	FOR DPA 30% LESS				**913.15**

18.96A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS

Code	Description	Unit	Quantity	Rate	Amount
3927	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 15 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	440.00	440.00
	TOTAL				440.00 W
	Add 1 % Water charges on "W"				4.40
	TOTAL				444.40 X
	Add GST on "X" (multiplying factor 0.1405)				62.44
	TOTAL				506.84 Y
	Add 15% CPOH on "Y"				76.03
	TOTAL				582.86 Z
	Add Cess @ 1% on "Z"				5.83
	Cost of 1 no.				588.69
	Say				588.70
	FOR DPA 30% LESS				**412.09**

18.96A.2 For 22 mm outer dia x 1/2" mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
3928	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 22 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	495.00	495.00
	TOTAL				495.00 W
	Add 1 % Water charges on "W"				4.95

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				499.95 X
	Add GST on "X" (multiplying factor 0.1405)				70.24
	TOTAL				570.19 Y
	Add 15% CPOH on "Y"				85.53
	TOTAL				655.72 Z
	Add Cess @ 1% on "Z"				6.56
	Cost of 1 no.				662.28
	Say				662.30
	FOR DPA 30% LESS				**463.61**

18.96A.3 For 22 mm outer dia x 3/4" mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3929	Stainless steel Female threaded Connector/Adapter for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	580.00	580.00
	TOTAL				580.00 W
	Add 1 % Water charges on "W"				5.80
	TOTAL				585.80 X
	Add GST on "X" (multiplying factor 0.1405)				82.30
	TOTAL				668.10 Y
	Add 15% CPOH on "Y"				100.22
	TOTAL				768.32 Z
	Add Cess @ 1% on "Z"				7.68
	Cost of 1 no.				776.00
	Say				776.00
	FOR DPA 30% LESS				**543.2**

18.96A.4 For 28 mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3930	Stainless steel Female threaded Connector/Adapter for 28 mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	955.00	955.00
	TOTAL				955.00 W
	Add 1 % Water charges on "W"				9.55
	TOTAL				964.55 X
	Add GST on "X" (multiplying factor 0.1405)				135.52
	TOTAL				1100.07 Y
	Add 15% CPOH on "Y"				165.01
	TOTAL				1265.08 Z
	Add Cess @ 1% on "Z"				12.65
	Cost of 1 no.				1277.73
	Say				1277.75
	FOR DPA 30% LESS				**894.425**

18.96A.5 For 35 mm outer dia X 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3931	Stainless steel Female threaded Connector/Adapter for 35 mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1020.00	1020.00
	TOTAL				1020.00 W
	Add 1 % Water charges on "W"				10.20
	TOTAL				1030.20 X

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X" (multiplying factor 0.1405)				144.74
	TOTAL				1174.94 Y
	Add 15% CPOH on "Y"				176.24
	TOTAL				1351.18 Z
	Add Cess @ 1% on "Z"				13.51
	Cost of 1 no.				1364.70
	Say				1364.70
	FOR DPA 30% LESS				**955.29**

18.96A.6 For 42 mm outer dia X 1-1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3932	Stainless steel Female threaded Connector/Adapter for 42 mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1565.00	1565.00
	TOTAL				1565.00 W
	Add 1 % Water charges on "W"				15.65
	TOTAL				1580.65 X
	Add GST on "X" (multiplying factor 0.1405)				222.08
	TOTAL				1802.73 Y
	Add 15% CPOH on "Y"				270.41
	TOTAL				2073.14 Z
	Add Cess @ 1% on "Z"				20.73
	Cost of 1 no.				2093.87
	Say				2093.85
	FOR DPA 30% LESS				**1465.695**

18.96A.7 For 54 mm outer dia X 2" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
3933	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 54 mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2400.00	2400.00
	TOTAL				2400.00 W
	Add 1 % Water charges on "W"				24.00
	TOTAL				2424.00 X
	Add GST on "X" (multiplying factor 0.1405)				340.57
	TOTAL				2764.57 Y
	Add 15% CPOH on "Y"				414.69
	TOTAL				3179.26 Z
	Add Cess @ 1% on "Z"				31.79
	Cost of 1 no.				3211.05
	Say				3211.05
	FOR DPA 30% LESS				**2247.735**

18.92 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Male Thread Connector/ Adapter

18.92.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8899	Stainless steel Male threaded Connector/ Adapter for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	195.00	195.00
	TOTAL				195.00 W
	Add 1 % Water charges on "W"				1.95
	TOTAL				196.95 X
	Add GST on "X" (multiplying factor 0.1405)				27.67

	TOTAL				224.62 Y
	Add 15% CPOH on "Y"				33.69
	TOTAL				258.31 Z
	Add Cess @ 1% on "Z"				2.58
	Cost of 1 no.				260.90
	Say				260.90
	FOR DPA 30% LESS				**182.63**

18.92.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8900	Stainless steel Male threaded Connector/Adapter for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	230.00	230.00
	TOTAL				230.00 W
	Add 1 % Water charges on "W"				2.30
	TOTAL				232.30 X
	Add GST on "X" (multiplying factor 0.1405)				32.64
	TOTAL				264.94 Y
	Add 15% CPOH on "Y"				39.74
	TOTAL				304.68 Z
	Add Cess @ 1% on "Z"				3.05
	Cost of 1 no.				307.73
	Say				307.75
	FOR DPA 30% LESS				**215.425**

18.92.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8901	Stainless steel Male threaded Connector/Adapter for 22.22 mm outer dia X 20mm nominal dia threaded	each	1.00	255.00	255.00
	TOTAL				255.00 W
	Add 1 % Water charges on "W"				2.55
	TOTAL				257.55 X
	Add GST on "X" (multiplying factor 0.1405)				36.19
	TOTAL				293.74 Y
	Add 15% CPOH on "Y"				44.06
	TOTAL				337.80 Z
	Add Cess @ 1% on "Z"				3.38
	Cost of 1 no.				341.17
	Say				341.15
	FOR DPA 30% LESS				**238.805**

18.92.4 For 28.58 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8902	Stainless steel Male threaded Connector/Adapter for 28.58 mm outer dia X 20 mm nominal dia threaded	each	1.00	325.00	325.00
	TOTAL				325.00 W
	Add 1 % Water charges on "W"				3.25
	TOTAL				328.25 X
	Add GST on "X" (multiplying factor 0.1405)				46.12
	TOTAL				374.37 Y
	Add 15% CPOH on "Y"				56.16
	TOTAL				430.52 Z
	Add Cess @ 1% on "Z"				4.31
	Cost of 1 no.				434.83
	Say				434.85
	Details of cost for 1 no.				
	MATERIAL				

Code	Description	Unit	Quantity	Rate	Amount
8903	Stainless steel Male threaded Connector/Adapter for 28.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	325.00	325.00
	TOTAL				325.00 W
	Add 1 % Water charges on "W"				3.25
	TOTAL				328.25 X
	Add GST on "X" (multiplying factor 0.1405)				46.12
	TOTAL				374.37 Y
	Add 15% CPOH on "Y"				56.16
	TOTAL				430.52 Z
	Add Cess @ 1% on "Z"				4.31
	Cost of 1 no.				434.83
	Say				434.85
	FOR DPA 30% LESS				**304.395**

18.92.6 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8904	Stainless steel Male threaded Connector/Adapter for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	475.00	475.00
	TOTAL				475.00 W
	Add 1 % Water charges on "W"				4.75
	TOTAL				479.75 X
	Add GST on "X" (multiplying factor 0.1405)				67.40
	TOTAL				547.15 Y
	Add 15% CPOH on "Y"				82.07
	TOTAL				629.23 Z
	Add Cess @ 1% on "Z"				6.29
	Cost of 1 no.				635.52
	Say				635.50
	FOR DPA 30% LESS				**444.85**

18.92.7 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8905	Stainless steel Male threaded Connector/Adapter for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	565.00	565.00
	TOTAL				565.00 W
	Add 1 % Water charges on "W"				5.65
	TOTAL				570.65 X
	Add GST on "X" (multiplying factor 0.1405)				80.18
	TOTAL				650.83 Y
	Add 15% CPOH on "Y"				97.62
	TOTAL				748.45 Z
	Add Cess @ 1% on "Z"				7.48
	Cost of 1 no.				755.93
	Say				755.95
	FOR DPA 30% LESS				**529.165**

18.92.8 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8906	Stainless steel Male threaded Connector/Adapter for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	649.00	649.00
	TOTAL				649.00 W
	Add 1 % Water charges on "W"				6.49
	TOTAL				655.49 X
	Add GST on "X" (multiplying factor 0.1405)				92.10

	TOTAL				747.59 Y
	Add 15% CPOH on "Y"				112.14
	TOTAL				859.72 Z
	Add Cess @ 1% on "Z"				8.60
	Cost of 1 no.				868.32
	Say				868.30
	FOR DPA 30% LESS				**607.81**

18.92.9 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8907	Stainless steel Male threaded Connector/Adapter for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	730.00	730.00
	TOTAL				730.00 W
	Add 1 % Water charges on "W"				7.30
	TOTAL				737.30 X
	Add GST on "X" (multiplying factor 0.1405)				103.59
	TOTAL				840.89 Y
	Add 15% CPOH on "Y"				126.13
	TOTAL				967.02 Z
	Add Cess @ 1% on "Z"				9.67
	Cost of 1 no.				976.69
	Say				976.70
	FOR DPA 30% LESS				**683.69**

18.92.10 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8908	Stainless steel Male threaded Connector/Adapter for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	850.00	850.00
	TOTAL				850.00 W
	Add 1 % Water charges on "W"				8.50
	TOTAL				858.50 X
	Add GST on "X" (multiplying factor 0.1405)				120.62
	TOTAL				979.12 Y
	Add 15% CPOH on "Y"				146.87
	TOTAL				1125.99 Z
	Add Cess @ 1% on "Z"				11.26
	Cost of 1 no.				1137.25
	Say				1137.25
	FOR DPA 30% LESS				**796.075**

18.92.11 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8909	Stainless steel Male threaded Connector/Adapter for 48.60 mm outer dia X 50 nominal dia threaded	each	1.00	1140.00	1140.00
	TOTAL				1140.00 W
	Add 1 % Water charges on "W"				11.40
	TOTAL				1151.40 X
	Add GST on "X" (multiplying factor 0.1405)				161.77
	TOTAL				1313.17 Y
	Add 15% CPOH on "Y"				196.98
	TOTAL				1510.15 Z
	Add Cess @ 1% on "Z"				15.10
	Cost of 1 no.				1525.25
	Say				1525.25
	FOR DPA 30% LESS				**1067.675**

18.97A	Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
3934	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/ Adapter for 15 mm outer				
	dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	405.00	405.00
	TOTAL				405.00 W
	Add 1 % Water charges on "W"				4.05
	TOTAL				409.05 X
	Add GST on "X" (multiplying factor 0.1405)				57.47
	TOTAL				466.52 Y
	Add 15% CPOH on "Y"				69.98
	TOTAL				536.50 Z
	Add Cess @ 1% on "Z"				5.36
	Cost of 1 no.				541.86
	Say				541.85
	FOR DPA 30% LESS				**379.295**

18.97A.2 For 22 mm outer dia X 1/2" nominal dia threaded

Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
3935	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/ Adapter for 22 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	480.00	480.00
	TOTAL				480.00 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.80 X
	Add GST on "X" (multiplying factor 0.1405)				68.11
	TOTAL				552.91 Y
	Add 15% CPOH on "Y"				82.94
	TOTAL				635.85 Z
	Add Cess @ 1% on "Z"				6.36
	Cost of 1 no.				642.21
	Say				642.20
	FOR DPA 30% LESS				**449.54**

18.97A.3 For 22 mm outer dia X 3/4" nominal dia threaded

Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
3936	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/ Adapter for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	505.00	505.00
	TOTAL				505.00 W
	Add 1 % Water charges on "W"				5.05
	TOTAL				510.05 X
	Add GST on "X" (multiplying factor 0.1405)				71.66
	TOTAL				581.71 Y
	Add 15% CPOH on "Y"				87.26
	TOTAL				668.97 Z
	Add Cess @ 1% on "Z"				6.69
	Cost of 1 no.				675.66
	Say				675.65
	FOR DPA 30% LESS				**472.955**

18.97A.4 For 28 mm outer dia X 1" nominal dia threaded

Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				

3937	MATERIAL Stainless steel Male threaded Connector/ Adapter for 28 mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	665.00	665.00
	TOTAL				665.00 W
	Add 1 % Water charges on "W"				6.65
	TOTAL				671.65 X
	Add GST on "X" (multiplying factor 0.1405)				94.37
	TOTAL				766.02 Y
	Add 15% CPOH on "Y"				114.90
	TOTAL				880.92 Z
	Add Cess @ 1% on "Z"				8.81
	Cost of 1 no.				889.73
	Say				889.75
	FOR DPA 30% LESS				**622.825**

18.97A.5 For 35 mm outer dia X 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
3938	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/ Adapter for 35 mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	970.00	970.00
	TOTAL				970.00 W
	Add 1 % Water charges on "W"				9.70
	TOTAL				979.70 X
	Add GST on "X" (multiplying factor 0.1405)				137.65
	TOTAL				1117.35 Y
	Add 15% CPOH on "Y"				167.60
	TOTAL				1284.95 Z
	Add Cess @ 1% on "Z"				12.85
	Cost of 1 no.				1297.80
	Say				1297.80
	FOR DPA 30% LESS				**908.46**

18.97A.6 For 42 mm outer dia X 1-1/2"nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
3939	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/ Adapter for 42 mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1415.00	1415.00
	TOTAL				1415.00 W
	Add 1 % Water charges on "W"				14.15
	TOTAL				1429.15 X
	Add GST on "X" (multiplying factor 0.1405)				200.80
	TOTAL				1629.95 Y
	Add 15% CPOH on "Y"				244.49
	TOTAL				1874.44 Z
	Add Cess @ 1% on "Z"				18.74
	Cost of 1 no.				1893.18
	Say				1893.20
	FOR DPA 30% LESS				**1325.24**

18.97A.7 For 54 mm outer dia X 2" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no. MATERIAL				

Code	Description	Unit	Quantity	Rate	Amount
3940	Stainless steel Male threaded Connector/ Adapter for 54 mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1895.00	1895.00
	TOTAL				1895.00 W
	Add 1 % Water charges on "W"				18.95
	TOTAL				1913.95 X
	Add GST on "X" (multiplying factor 0.1405)				268.91
	TOTAL				2182.86 Y
	Add 15% CPOH on "Y"				327.43
	TOTAL				2510.29 Z
	Add Cess @ 1% on "Z"				25.10
	Cost of 1 no.				2535.39
	Say				2535.40
	FOR DPA 30% LESS				**1774.78**

18.93 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Valve Connector

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8910	Stainless steel Valve Connector for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	235.00	235.00
	TOTAL				235.00 W
	Add 1 % Water charges on "W"				2.35
	TOTAL				237.35 X
	Add GST on "X" (multiplying factor 0.1405)				33.35
	TOTAL				270.70 Y
	Add 15% CPOH on "Y"				40.60
	TOTAL				311.30 Z
	Add Cess @ 1% on "Z"				3.11
	Cost of 1 no.				314.42
	Say				314.40
	FOR DPA 30% LESS				**220.08**

18.93.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8911	Stainless steel Valve Connector for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	280.00	280.00
	TOTAL				280.00 W
	Add 1 % Water charges on "W"				2.80
	TOTAL				282.80 X
	Add GST on "X" (multiplying factor 0.1405)				39.73
	TOTAL				322.53 Y
	Add 15% CPOH on "Y"				48.38
	TOTAL				370.91 Z
	Add Cess @ 1% on "Z"				3.71
	Cost of 1 no.				374.62
	Say				374.60
	FOR DPA 30% LESS				**262.22**

18.93.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8912	Stainless steel Valve Connector for				

	22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	310.00	310.00
	TOTAL				310.00 W
	Add 1 % Water charges on "W"				3.10
	TOTAL				313.10 X
	Add GST on "X" (multiplying factor 0.1405)				43.99
	TOTAL				357.09 Y
	Add 15% CPOH on "Y"				53.56
	TOTAL				410.65 Z
	Add Cess @ 1% on "Z"				4.11
	Cost of 1 no.				414.76
	Say				414.75
	FOR DPA 30% LESS				**290.325**

18.93.4 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8913	Stainless steel Valve Connector for 28.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	425.00	425.00
	TOTAL				425.00 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				429.25 X
	Add GST on "X" (multiplying factor 0.1405)				60.31
	TOTAL				489.56 Y
	Add 15% CPOH on "Y"				73.43
	TOTAL				562.99 Z
	Add Cess @ 1% on "Z"				5.63
	Cost of 1 no.				568.62
	Say				568.60
	FOR DPA 30% LESS				**398.02**

18.93.5 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8914	Stainless steel Valve Connector for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	645.00	645.00
	TOTAL				645.00 W
	Add 1 % Water charges on "W"				6.45
	TOTAL				651.45 X
	Add GST on "X" (multiplying factor 0.1405)				91.53
	TOTAL				742.98 Y
	Add 15% CPOH on "Y"				111.45
	TOTAL				854.43 Z
	Add Cess @ 1% on "Z"				8.54
	Cost of 1 no.				862.97
	Say				862.95
	Details of cost for 1 no.				
	MATERIAL				
8915	Stainless steel Valve Connector for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	880.00	880.00
	TOTAL				880.00 W
	Add 1 % Water charges on "W"				8.80
	TOTAL				888.80 X
	Add GST on "X" (multiplying factor 0.1405)				124.88
	TOTAL				1013.68 Y
	Add 15% CPOH on "Y"				152.05
	TOTAL				1165.73 Z

	Add Cess @ 1% on "Z"				11.66
	Cost of 1 no.				1177.39
	Say				1177.40
	FOR DPA 30% LESS				**824.18**

18.93.7 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8916	Stainless steel Valve Connector for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	1210.00	1210.00
	TOTAL				1210.00 W
	Add 1 % Water charges on "W"				12.10
	TOTAL				1222.10 X
	Add GST on "X" (multiplying factor 0.1405)				171.71
	TOTAL				1393.81 Y
	Add 15% CPOH on "Y"				209.07
	TOTAL				1602.88 Z
	Add Cess @ 1% on "Z"				16.03
	Cost of 1 no.				1618.90
	Say				1618.90
	FOR DPA 30% LESS				**1133.23**

18.94 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Threaded Elbow 90°

18.94.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
8917	Details of cost for 1 no. MATERIAL SS Female Threaded Elbow 90° for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	160.00	160.00
	TOTAL				160.00 W
	Add 1 % Water charges on "W"				1.60
	TOTAL				161.60 X
	Add GST on "X" (multiplying factor 0.1405)				22.70
	TOTAL				184.30 Y
	Add 15% CPOH on "Y"				27.65
	TOTAL				211.95 Z
	Add Cess @ 1% on "Z"				2.12
	Cost of 1 no.				214.07
	Say				214.05
	FOR DPA 30% LESS				**149.835**

18.94.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8918	Stainless steel Female Threaded Elbow 90° for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	215.00	215.00
	TOTAL				215.00 W
	Add 1 % Water charges on "W"				2.15
	TOTAL				217.15 X
	Add GST on "X" (multiplying factor 0.1405)				30.51
	TOTAL				247.66 Y
	Add 15% CPOH on "Y"				37.15
	TOTAL				284.81 Z
	Add Cess @ 1% on "Z"				2.85
	Cost of 1 no.				287.66
	Say				287.65
	FOR DPA 30% LESS				**201.355**

18.94.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount

8919	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	215.00	215.00
	TOTAL				215.00 W
	Add 1 % Water charges on "W"				2.15
	TOTAL				217.15 X
	Add GST on "X" (multiplying factor 0.1405)				30.51
	TOTAL				247.66 Y
	Add 15% CPOH on "Y"				37.15
	TOTAL				284.81 Z
	Add Cess @ 1% on "Z"				2.85
	Cost of 1 no.				287.66
	Say				287.65
8920	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 25.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	215.00	215.00
	TOTAL				215.00 W
	Add 1 % Water charges on "W"				2.15
	TOTAL				217.15 X
	Add GST on "X" (multiplying factor 0.1405)				30.51
	TOTAL				247.66 Y
	Add 15% CPOH on "Y"				37.15
	TOTAL				284.81 Z
	Add Cess @ 1% on "Z"				2.85
	Cost for 1 no.				287.66
	Say				287.65
	FOR DPA 30% LESS				**201.355**

18.94.5 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
8921	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	295.00	295.00
	TOTAL				295.00 W
	Add 1 % Water charges on "W"				2.95
	TOTAL				297.95 X
	Add GST on "X" (multiplying factor 0.1405)				41.86
	TOTAL				339.81 Y
	Add 15% CPOH on "Y"				50.97
	TOTAL				390.78 Z
	Add Cess @ 1% on "Z"				3.91
	Cost for 1 no.				394.69
	Say				394.70
	FOR DPA 30% LESS				**276.29**

18.94.6 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
8922	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	480.00	480.00
	TOTAL				480.00 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.80 X
	Add GST on "X" (multiplying factor 0.1405)				68.11
	TOTAL				552.91 Y

Code	Description	Unit	Quantity	Rate	Amount
	Add 15% CPOH on "Y"				82.94
	TOTAL				635.85 Z
	Add Cess @ 1% on "Z"				6.36
	Cost of 1 no.				642.21
	Say				642.20
	FOR DPA 30% LESS				**449.54**
18.94.7	**For 42.70 mm outer dia x 40 mm nominal dia threaded**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
8923	Stainless steel Female Threaded Elbow 90° for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	480.00	480.00
	TOTAL				480.00 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.80 X
	Add GST on "X" (multiplying factor 0.1405)				68.11
	TOTAL				552.91 Y
	Add 15% CPOH on "Y"				82.94
	TOTAL				635.85 Z
	Add Cess @ 1% on "Z"				6.36
	Cost of 1 no.				642.21
	Say				642.20
	FOR DPA 30% LESS				**449.54**
18.94.8	**For 48.60 mm outer dia x 40 mm nominal dia threaded**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 no.				
	MATERIAL				
8924	Stainless steel Female Threaded Elbow 90° for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95
	Details of cost for 1 no.				
	MATERIAL				
8925	Stainless steel Female Threaded Elbow 90° for 48.60 mm outer dia X 50 mm nominal dia threaded each 1.00 710.00 710.00				
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95
	FOR DPA 30% LESS				**664.965**

18.99A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Threaded Elbow 90°

18.99A.1 For 15 mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3941	Stainless steel Female Threaded Elbow 90° for 15 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	640.00	640.00
	TOTAL				640.00 W
	Add 1 % Water charges on "W"				6.40
	TOTAL				646.40 X
	Add GST on "X" (multiplying factor 0.1405)				90.82
	TOTAL				737.22 Y
	Add 15% CPOH on "Y"				110.58
	TOTAL				847.80 Z
	Add Cess @ 1% on "Z"				8.48
	Cost of 1 no.				856.28
	Say				856.30
	FOR DPA 30% LESS				**599.41**

18.99A.2 For 22 mm outer dia X 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3942	Stainless steel Female Threaded Elbow 90° for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	860.00	860.00
	TOTAL				860.00 W
	Add 1 % Water charges on "W"				8.60
	TOTAL				868.60 X
	Add GST on "X" (multiplying factor 0.1405)				122.04
	TOTAL				990.64 Y
	Add 15% CPOH on "Y"				148.60
	TOTAL				1139.23 Z
	Add Cess @ 1% on "Z"				11.39
	Cost of 1 no.				1150.63
	Say				1150.65
	FOR DPA 30% LESS				**805.455**

18.99A.3 For 28mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
3943	Stainless steel Female Threaded Elbow 90° for 28mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1180.00	1180.00
	TOTAL				1180.00 W
	Add 1 % Water charges on "W"				11.80
	TOTAL				1191.80 X
	Add GST on "X" (multiplying factor 0.1405)				167.45
	TOTAL				1359.25 Y
	Add 15% CPOH on "Y"				203.89
	TOTAL				1563.14 Z

	Add Cess @ 1% on "Z"				15.63
	Cost for 1 no.				1578.77
	Say				1578.75
	FOR DPA 30% LESS				**1105.125**

18.99A.4 For 35mm outer dia X 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
3944	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 35mm outer dia X 1-1/4"				
	nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1917.00	1917.00
	TOTAL				1917.00 W
	Add 1 % Water charges on "W"				19.17
	TOTAL				1936.17 X
	Add GST on "X" (multiplying factor 0.1405)				272.03
	TOTAL				2208.20 Y
	Add 15% CPOH on "Y"				331.23
	TOTAL				2539.43 Z
	Add Cess @ 1% on "Z"				25.39
	Cost for 1 no.				2564.83
	Say				2564.85
	FOR DPA 30% LESS				**1795.395**

18.99A.5 For 42mm outer dia X 1-1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
3945	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 42mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2088.00	2088.00
	TOTAL				2088.00 W
	Add 1 % Water charges on "W"				20.88
	TOTAL				2108.88 X
	Add GST on "X" (multiplying factor 0.1405)				296.30
	TOTAL				2405.18 Y
	Add 15% CPOH on "Y"				360.78
	TOTAL				2765.95 Z
	Add Cess @ 1% on "Z"				27.66
	Cost of 1 no.				2793.61
	Say				2793.60
	FOR DPA 30% LESS				**1955.52**

18.99A.6 For 54mm outer dia X 2" nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
3946	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 54mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	3227.00	3227.00
	TOTAL				3227.00 W
	Add 1 % Water charges on "W"				32.27
	TOTAL				3259.27 X
	Add GST on "X" (multiplying factor 0.1405)				457.93
	TOTAL				3717.20 Y
	Add 15% CPOH on "Y"				557.58
	TOTAL				4274.78 Z
	Add Cess @ 1% on "Z"				42.75
	Cost of 1 no.				4317.52
	Say				4317.50

	FOR DPA 30% LESS				3022.25

18.95 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Male Threaded Elbow 90°

18.95.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8926	Stainless steel Male Threaded Elbow 90° for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	195.00	195.00
	TOTAL				195.00 W
	Add 1 % Water charges on "W"				1.95
	TOTAL				196.95 X
	Add GST on "X" (multiplying factor 0.1405)				27.67
	TOTAL				224.62 Y
	Add 15% CPOH on "Y"				33.69
	TOTAL				258.31 Z
	Add Cess @ 1% on "Z"				2.58
	Cost of 1 no.				260.90
	Say				260.90
	FOR DPA 30% LESS				**182.63**

18.95.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8927	Stainless steel Male Threaded Elbow 90° for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	225.00	225.00
	TOTAL				225.00 W
	Add 1 % Water charges on "W"				2.25
	TOTAL				227.25 X
	Add GST on "X" (multiplying factor 0.1405)				31.93
	TOTAL				259.18 Y
	Add 15% CPOH on "Y"				38.88
	TOTAL				298.06 Z
	Add Cess @ 1% on "Z"				2.98
	Cost of 1 no.				301.04
	Say				301.05
	FOR DPA 30% LESS				**210.735**

18.95.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8928	Stainless steel Male Threaded Elbow 90° for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	225.00	225.00
	TOTAL				225.00 W
	Add 1 % Water charges on "W"				2.25
	TOTAL				227.25 X
	Add GST on "X" (multiplying factor 0.1405)				31.93
	TOTAL				259.18 Y
	Add 15% CPOH on "Y"				38.88
	TOTAL				298.06 Z
	Add Cess @ 1% on "Z"				2.98
	Cost of 1 no.				301.04
	Say				301.05
	FOR DPA 30% LESS				**210.735**

18.95.4 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount

8929	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° for 28.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	225.00	225.00
	TOTAL				225.00 W
	Add 1 % Water charges on "W"				2.25
	TOTAL				227.25 X
	Add GST on "X" (multiplying factor 0.1405)				31.93
	TOTAL				259.18 Y
	Add 15% CPOH on "Y"				38.88
	TOTAL				298.06 Z
	Add Cess @ 1% on "Z"				2.98
	Cost of 1 no.				301.04
	Say				301.05
	FOR DPA 30% LESS				**210.735**

18.95.5 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
8930	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	290.00	290.00
	TOTAL				290.00 W
	Add 1 % Water charges on "W"				2.90
	TOTAL				292.90 X
	Add GST on "X" (multiplying factor 0.1405)				41.15
	TOTAL				334.05 Y
	Add 15% CPOH on "Y"				50.11
	TOTAL				384.16 Z
	Add Cess @ 1% on "Z"				3.84
	Cost of 1 no.				388.00
	Say				388.00
	FOR DPA 30% LESS				**271.6**

18.95.6 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
8931	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	290.00	290.00
	TOTAL				290.00 W
	Add 1 % Water charges on "W"				2.90
	TOTAL				292.90 X
	Add GST on "X" (multiplying factor 0.1405)				41.15
	TOTAL				334.05 Y
	Add 15% CPOH on "Y"				50.11
	TOTAL				384.16 Z
	Add Cess @ 1% on "Z"				3.84
	Cost of 1 no.				388.00
	Say				388.00
	FOR DPA 30% LESS				**271.6**

18.95.7 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
8932	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	480.00	480.00
	TOTAL				480.00 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.80 X

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X" (multiplying factor 0.1405)				68.11
	TOTAL				552.91 Y
	Add 15% CPOH on "Y"				82.94
	TOTAL				635.85 Z
	Add Cess @ 1% on "Z"				6.36
	Cost of 1 no.				642.21
	Say				642.20
	FOR DPA 30% LESS				**449.54**

18.95.8 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8933	Stainless steel Male Threaded Elbow 90° for 42.70 mm outer dia X40 mm nominal dia threaded	each	1.00	480.00	480.00
	TOTAL				480.00 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.80 X
	Add GST on "X" (multiplying factor 0.1405)				68.11
	TOTAL				552.91 Y
	Add 15% CPOH on "Y"				82.94
	TOTAL				635.85 Z
	Add Cess @ 1% on "Z"				6.36
	Cost of 1 no.				642.21
	Say				642.20
	FOR DPA 30% LESS				**449.54**

18.95.9 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8934	Stainless steel Male Threaded Elbow 90° for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	695.00	695.00
	TOTAL				695.00 W
	Add 1 % Water charges on "W"				6.95
	TOTAL				701.95 X
	Add GST on "X" (multiplying factor 0.1405)				98.62
	TOTAL				800.57 Y
	Add 15% CPOH on "Y"				120.09
	TOTAL				920.66 Z
	Add Cess @ 1% on "Z"				9.21
	Cost of 1 no.				929.87
	Say				929.85
	FOR DPA 30% LESS				**650.895**

18.95.10 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8935	Stainless steel Male Threaded Elbow 90° for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	695.00	695.00
	TOTAL				695.00 W
	Add 1 % Water charges on "W"				6.95
	TOTAL				701.95 X
	Add GST on "X" (multiplying factor 0.1405)				98.62
	TOTAL				800.57 Y
	Add 15% CPOH on "Y"				120.09
	TOTAL				920.66 Z
	Add Cess @ 1% on "Z"				9.21
	Cost of 1 no.				929.87
	Say				929.85

	FOR DPA 30% LESS				650.895

18.96 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Cap

18.96.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8936	Stainless steel Cap for 15.88 mm outer dia pipe	each	1.00	48.00	48.00
	TOTAL				48.00 W
	Add 1 % Water charges on "W"				0.48
	TOTAL				48.48 X
	Add GST on "X" (multiplying factor 0.1405)				6.81
	TOTAL				55.29 Y
	Add 15% CPOH on "Y"				8.29
	TOTAL				63.59 Z
	Add Cess @ 1% on "Z"				0.64
	Cost of 1 no.				64.22
	Say				64.20
	FOR DPA 30% LESS				**44.94**

18.96.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8937	Stainless steel Cap for 22.22 mm outer dia pipe	each	1.00	70.00	70.00
	TOTAL				70.00 W
	Add 1 % Water charges on "W"				0.70
	TOTAL				70.70 X
	Add GST on "X" (multiplying factor 0.1405)				9.93
	TOTAL				80.63 Y
	Add 15% CPOH on "Y"				12.10
	TOTAL				92.73 Z
	Add Cess @ 1% on "Z"				0.93
	Cost of 1 no.				93.66
	Say				93.65
	FOR DPA 30% LESS				**65.555**

18.96.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8938	Stainless steel Cap for 28.58 mm outer dia pipe	each	1.00	90.00	90.00
	TOTAL				90.00 W
	Add 1 % Water charges on "W"				0.90
	TOTAL				90.90 X
	Add GST on "X" (multiplying factor 0.1405)				12.77
	TOTAL				103.67 Y
	Add 15% CPOH on "Y"				15.55
	TOTAL				119.22 Z
	Add Cess @ 1% on "Z"				1.19
	Cost of 1 no.				120.41
	Say				120.40
	FOR DPA 30% LESS				**84.28**

18.96.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8939	Stainless steel Cap for 34.00 mm outer dia pipe	each	1.00	175.00	175.00

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				175.00 W
	Add 1 % Water charges on "W"				1.75
	TOTAL				176.75 X
	Add GST on "X" (multiplying factor 0.1405)				24.83
	TOTAL				201.58 Y
	Add 15% CPOH on "Y"				30.24
	TOTAL				231.82 Z
	Add Cess @ 1% on "Z"				2.32
	Cost of 1 no.				234.14
	Say				234.15
	FOR DPA 30% LESS				**163.905**

18.96.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8940	Stainless steel Cap for 42.70 mm outer dia pipe	each	1.00	250.00	250.00
	TOTAL				250.00 W
	Add 1 % Water charges on "W"				2.50
	TOTAL				252.50 X
	Add GST on "X" (multiplying factor 0.1405)				35.48
	TOTAL				287.98 Y
	Add 15% CPOH on "Y"				43.20
	TOTAL				331.17 Z
	Add Cess @ 1% on "Z"				3.31
	Cost of 1 no.				334.48
	Say				334.50
	FOR DPA 30% LESS				**234.15**

18.96.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8941	Stainless steel Cap for 48.60 mm outer dia pipe	each	1.00	325.00	325.00
	TOTAL				325.00 W
	Add 1 % Water charges on "W"				3.25
	TOTAL				328.25 X
	Add GST on "X" (multiplying factor 0.1405)				46.12
	TOTAL				374.37 Y
	Add 15% CPOH on "Y"				56.16
	TOTAL				430.52 Z
	Add Cess @ 1% on "Z"				4.31
	Cost of 1 no.				434.83
	Say				434.85
	FOR DPA 30% LESS				**304.395**

18.97 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Pipe Bridge

18.97.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8942	Stainless steel Pipe Bridge for 15.88 mm outer dia pipe	each	1.00	220.00	220.00
	TOTAL				220.00 W
	Add 1 % Water charges on "W"				2.20
	TOTAL				222.20 X
	Add GST on "X" (multiplying factor 0.1405)				31.22
	TOTAL				253.42 Y

	Add 15% CPOH on "Y"				38.01
	TOTAL				291.43 Z
	Add Cess @ 1% on "Z"				2.91
	Cost of 1 no.				294.35
	Say				294.35
	FOR DPA 30% LESS				**206.045**

18.97.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8943	Stainless steel Pipe Bridge for 15.88 mm outer dia pipe	each	1.00	290.00	290.00
	TOTAL				290.00 W
	Add 1 % Water charges on "W"				2.90
	TOTAL				292.90 X
	Add GST on "X" (multiplying factor 0.1405)				41.15
	TOTAL				334.05 Y
	Add 15% CPOH on "Y"				50.11
	TOTAL				384.16 Z
	Add Cess @ 1% on "Z"				3.84
	Cost of 1 no.				388.00
	Say				388.00
	FOR DPA 30% LESS				**271.6**

18.97.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no.				
	MATERIAL				
8944	Stainless steel Pipe Bridge for 28.58 mm outer dia pipe	each	1.00	415.00	415.00
	TOTAL				415.00 W
	Add 1 % Water charges on "W"				4.15
	TOTAL				419.15 X
	Add GST on "X" (multiplying factor 0.1405)				58.89
	TOTAL				478.04 Y
	Add 15% CPOH on "Y"				71.71
	TOTAL				549.75 Z
	Add Cess @ 1% on "Z"				5.50
	Cost for 1 no.				555.24
	Say				555.25
	FOR DPA 30% LESS				**388.675**

SUB HEAD 19
DRAINAGE

19.1 Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:

19.1.1 100x100 mm size P type

19.1.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of one gully tarp				
1900	S.W. gully trap P type 100x100 mm	each	1.00	115.00	115.00
1364	C.I. grating 100x100 mm	each	1.00	40.00	40.00
1352	C.I. cover and frame 300x300 mm inside	each	1.00	480.00	480.00
9977	Carriage of materials	L.S.	4.50	2.12	9.54
4.1.11	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total=0.107 cum Deduct: 0.345÷3x[0.09+0.01+(0.09x0.01)1/2] = 0.015 cum 3.14/4x(0.124)²x0.47 = 0.006 cum Total= 0.021 cum Net quantity 0.107 cum (-) 0.021 cum = 0.086 cum say 0.09 cum Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.09	5660.45	509.44 A
6.1.1	Brick work with 7.5 class designation brick in cement mortar 1:4 (1 cement : 4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum. say 0.13 cum Rate as per item no 6.1.1 of SH : Brick Work	cum	0.13	6882.00	894.66 A
4.2.3	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m = 0.008 cum Rate as per item no 4.2.3 of SH : Concrete Work	cum	0.008	9375.20	75.00 A
13.9.1	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.358x(1.20+0.40)] = 0.286 sqm. say 0.29 sqm Rate as per item no 13.9.1 of SH : Finishing	sqm	0.29	386.55	112.10 A
	TOTAL				2235.74 W
	Add 1 % Water charges on "W-A"				6.45
	TOTAL				2242.19 X
	Add GST on "X-A" (multiplying factor 0.1405)				91.46
	TOTAL				2333.65 Y
	Add 15% CPOH on "Y-A"				111.37
	TOTAL				2445.02 Z
	Add Cess @ 1% on "Z-A"				8.54
	Cost of each				2453.56
	Say				2453.55
	FOR DPA 30% LESS				**1717.485**

19.1.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate	Amount
	Detaila of cost of one gully tarp				
1900	S.W. gully trap P type 100x100 mm	each	1.00	115.00	115.00
1364	C.I. grating 100x100 mm	each	1.00	40.00	40.00
1352	C.I. cover and frame 300x300 mm inside	each	1.00	480.00	480.00
9977	Carriage of materials	L.S.	4.50	2.12	9.54
	Cement concrete 1:5:10 (1 cement :				

	5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total=0.107 cum Deduct: 0.345÷3x[0.09+0.01+(0.09x0.01)1/2] = 0.015 cum 3.14/4x(0.124)²x0.47 = 0.006 cum Total = 0.021 cum Net quantity 0.107 cum (-) 0.021 cum = 0.086 cum say 0.09 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.09	5660.45	509.44 A
	Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) cement mortar 1:4 (1 cement :4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum say 0.13 cum				
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.13	6528.70	848.73 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m = 0.008 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work	cum	0.008	9375.20	75.00 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.358x(1.20+0.40)] = 0.286 sqm say 0.29 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.29	386.55	112.10 A
	TOTAL				2189.81 W
	Add 1 % Water charges on "W-A"				6.45
	TOTAL				2196.26 X
	Add GST on "X-A" (multiplying factor 0.1405)				91.46
	TOTAL				2287.72 Y
	Add 15% CPOH on "Y-A"				111.37
	TOTAL				2399.09 Z
	Add Cess @ 1% on "Z-A"				8.54
	Cost of each				2407.63
	Say				2407.65
	FOR DPA 30% LESS				**1685.355**

19.1.2 150 x 100 mm size P type

19.1.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of one gully tarp				
1902	S.W. gully trap P type 150x100 mm	each	1.00	155.00	155.00
1366	C.I. grating 150x150 mm	each	1.00	55.00	55.00
1352	C.I. cover and frame 300x300 mm inside	each	1.00	480.00	480.00
9977	Carriage of materials	L.S.	4.50	2.12	9.54
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)				

	0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total =0.107 cum				
	Deduct: 0.322÷3x[0.09+0.023+(0.09x0.023)1/2] = 0.017 cum 3.14/4x(0.124)²x0.485 = 0.006 cum Total = 0.023 cum Net quantity 0.107 cum (-) 0.023 cum = 0.084 cum say 0.08 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.08	5660.45	452.84 A
	Brick work with 75 class designation brick in cement mortar 1:4 (1 cement :4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum say 0.13 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.13	6882.00	894.66 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m = 0.008 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work	cum	0.008	9375.20	75.00 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.337x(1.20+0.60)] = 0.303 sqm. say 0.30 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.30	386.55	115.97 A
	TOTAL				2238.00 W
	Add 1 % Water charges on "W-A"				7.00
	TOTAL				2245.00 X
	Add GST on "X-A" (multiplying factor 0.1405)				99.27
	TOTAL				2344.27 Y
	Add 15% CPOH on "Y-A"				120.87
	TOTAL				2465.14 Z
	Add Cess @ 1% on "Z-A"				9.27
	Cost of each				2474.40
	Say				2474.40
	FOR DPA 30% LESS				**1732.08**

19.1.2.2 With sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of one gully tarp				
1902	S.W. gully trap P type 150x100 mm	each	1.00	155.00	155.00
1366	C.I. grating 150x150 mm	each	1.00	55.00	55.00
1352	C.I. cover and frame 300x300 mm inside	each	1.00	480.00	480.00
9977	Carriage of materials	L.S.	4.50	2.12	9.54
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)				
	0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total =0.107 cum Deduct:				

	0.322÷3x[0.09+0.023+(0.09x0.023)1/2] = 0.017 cum 3.14/4x(0.124)²x0.485 = 0.006 cum Total= 0.023 cum Net quantity 0.107 cum (-) 0.023 cum = 0.084 cum say 0.08 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.08	5660.45	452.84 A
	Brick work with sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement :4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum say 0.13 cum				
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.13	6528.70	848.73 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m = 0.008 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work	cum	0.008	9375.20	75.00 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.337x(1.20+0.60)] = 0.303 sqm. say 0.30 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.30	386.55	115.97 A
	TOTAL				2192.07 W
	Add 1 % Water charges on "W-A"				7.00
	TOTAL				2199.07 X
	Add GST on "X-A" (multiplying factor 0.1405)				99.27
	TOTAL				2298.34 Y
	Add 15% CPOH on "Y-A"				120.87
	TOTAL				2419.21 Z
	Add Cess @ 1% on "Z-A"				9.27
	Cost of each				2428.47
	Say				2428.45
	FOR DPA 30% LESS				**1699.915**

19.1.3 180x150 mm size P type

19.1.3.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of one gully tarp				
1904	S.W. gully trap P type 180x150 mm	each	1.00	230.00	230.00
1367	C.I. grating 180x180 mm	each	1.00	65.00	65.00
1352	C.I. cover and frame 300x300 mm inside	each	1.00	480.00	480.00
9977	Carriage of materials	L.S.	4.50	2.12	9.54
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total=0.107 cum Deduct: 0.155÷3x[0.09+0.032+(0.09x0.032)1/2] = 0.008 cum 3.14/4x(0.182)²x0.70 =0.018 cum				

	Total= 0.026 cum Net quantity 0.107 cum (-) 0.026 cum = 0.081 cum say 0.08 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.08	5660.45	452.84 A
	Brick work with 7.5 class designation brick in cement mortar 1:4 (1 cement : 4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum. say 0.13 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.13	6882.00	894.66 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m =0.008 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work	cum	0.008	9375.20	75.00 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.166x(1.20+0.72)] = 0.159 sqm say 0.16 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.16	386.55	61.85 A
	TOTAL				2268.89 W
	Add 1 % Water charges on "W-A"				7.85
	TOTAL				2276.73 X
	Add GST on "X-A" (multiplying factor 0.1405)				111.33
	TOTAL				2388.06 Y
	Add 15% CPOH on "Y-A"				135.56
	TOTAL				2523.62 Z
	Add Cess @ 1% on "Z-A"				10.39
	Cost of each				2534.01
	Say				2534.00
	FOR DPA 30% LESS				**1773.8**

19.1.3.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of one gully tarp				
1904	S.W. gully trap P type 180x150 mm	each	1.00	230.00	230.00
1367	C.I. grating 180x180 mm	each	1.00	65.00	65.00
1352	C.I. cover and frame 300x300 mm inside	each	1.00	480.00	480.00
9977	Carriage of materials	L.S.	4.50	2.12	9.54
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total=0.107 cum Deduct: 0.155÷3x[0.09+0.032+(0.09x0.032)1/2] = 0.008 cum 3.14/4x(0.182)²x0.70 =0.018 cum Total= 0.026 cum Net quantity 0.107 cum (-) 0.026 cum = 0.081 cum say 0.08 cum				
4.1.11	Rate as per item no 4.1.11 of				

	SH : Concrete Work	cum	0.08	5660.45	452.84 A
	Brick work with sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement : 4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum say 0.13 cum				
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.13	6528.70	848.73 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m =0.008 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work	cum	0.008	9375.20	75.00 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.166x(1.20+0.72)] = 0.159 sqm say0.16 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.16	386.55	61.85 A
	TOTAL				2222.96 W
	Add 1 % Water charges on "W-A"				7.85
	TOTAL				2230.80 X
	Add GST on "X-A" (multiplying factor 0.1405)				111.33
	TOTAL				2342.13 Y
	Add 15% CPOH on "Y-A"				135.56
	TOTAL				2477.69 Z
	Add Cess @ 1% on "Z-A"				10.39
	Cost of each				2488.08
	Say				2488.10
	FOR DPA 30% LESS				**1741.67**

19.2 Dismantling of old S.W. pipes including breaking of joints and bed concrete stacking of useful materials near the site within 50 m lead and disposal of unserviceable materials into municipal dumps :

19.2.1 100 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.36	645.00	232.20
	TOTAL				548.25 W
	Add 1 % Water charges on "W"				5.48
	TOTAL				553.73 X
	Add GST on "X" (multiplying factor 0.1405)				77.80
	TOTAL				631.53 Y
	Add 15% CPOH on "Y"				94.73
	TOTAL				726.26 Z
	Add Cess @ 1% on "Z"				7.26
	Cost of 10 metres				733.52
	Cost of 1 metre				73.35
	Say				73.35
	FOR DPA 30% LESS				**51.345**

19.2.2 150 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.45	645.00	290.25

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				606.30 W
	Add 1 % Water charges on "W"				6.06
	TOTAL				612.36 X
	Add GST on "X" (multiplying factor 0.1405)				86.04
	TOTAL				698.40 Y
	Add 15% CPOH on "Y"				104.76
	TOTAL				803.16 Z
	Add Cess @ 1% on "Z"				8.03
	Cost of 10 metres				811.19
	Cost of 1 metre				81.12
	Say				81.10
	FOR DPA 30% LESS				**56.77**
19.2.3	**200 mm diameter**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
0114	Details of cost for 10 metre LABOUR Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.51	645.00	328.95
	TOTAL				645.00 W
	Add 1 % Water charges on "W"				6.45
	TOTAL				651.45 X
	Add GST on "X" (multiplying factor 0.1405)				91.53
	TOTAL				742.98 Y
	Add 15% CPOH on "Y"				111.45
	TOTAL				854.43 Z
	Add Cess @ 1% on "Z"				8.54
	Cost of 10 metres				862.97
	Cost of 1 metre				86.30
	Say				86.30
	FOR DPA 30% LESS				**60.41**
19.2.4	**250 mm diameter**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.57	645.00	367.65
	TOTAL				683.70 W
	Add 1 % Water charges on "W"				6.84
	TOTAL				690.54 X
	Add GST on "X" (multiplying factor 0.1405)				97.02
	TOTAL				787.56 Y
	Add 15% CPOH on "Y"				118.13
	TOTAL				905.69 Z
	Add Cess @ 1% on "Z"				9.06
	Cost of 10 metres				914.75
	Cost of 1 metre				91.47
	Say				91.45
	FOR DPA 30% LESS				**64.015**
19.2.5	**300 mm diameter**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.63	645.00	406.35
	TOTAL				722.40 W
	Add 1 % Water charges on "W"				7.22
	TOTAL				729.62 X
	Add GST on "X" (multiplying				

	factor 0.1405)				102.51
	TOTAL				832.14 Y
	Add 15% CPOH on "Y"				124.82
	TOTAL				956.96 Z
	Add Cess @ 1% on "Z"				9.57
	Cost of 10 metres				966.53
	Cost of 1 metre				96.65
	Say				96.65
	FOR DPA 30% LESS				**67.655**

19.2.6 350 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.60	645.00	387.00
0115	Coolie	day	0.69	645.00	445.05
	TOTAL				832.05 W
	Add 1 % Water charges on "W"				8.32
	TOTAL				840.37 X
	Add GST on "X" (multiplying factor 0.1405)				118.07
	TOTAL				958.44 Y
	Add 15% CPOH on "Y"				143.77
	TOTAL				1102.21 Z
	Add Cess @ 1% on "Z"				11.02
	Cost of 10 metres				1113.23
	Cost of 1 metre				111.32
	Say				111.30
	FOR DPA 30% LESS				**77.91**

19.2.7 400 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.75	645.00	483.75
	TOTAL				909.45 W
	Add 1 % Water charges on "W"				9.09
	TOTAL				918.54 X
	Add GST on "X" (multiplying factor 0.1405)				129.06
	TOTAL				1047.60 Y
	Add 15% CPOH on "Y"				157.14
	TOTAL				1204.74 Z
	Add Cess @ 1% on "Z"				12.05
	Cost of 10 metres				1216.79
	Cost of 1 metre				121.68
	Say				121.70
	FOR DPA 30% LESS				**85.19**

19.2.8 450 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.81	645.00	522.45
	TOTAL				948.15 W
	Add 1 % Water charges on "W"				9.48
	TOTAL				957.63 X
	Add GST on "X" (multiplying factor 0.1405)				134.55
	TOTAL				1092.18 Y
	Add 15% CPOH on "Y"				163.83
	TOTAL				1256.01 Z
	Add Cess @ 1% on "Z"				12.56

	Cost of 10 metres				1268.57
	Cost of 1 metre				126.86
	Say				126.85
	FOR DPA 30% LESS				**88.795**

19.3 Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :

19.3.1 100 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1700	R.C.C. pipes NP2 class 100 mm dia	metre	10.00	210.00	2100.00
	(in 2 m. length = 5 Nos.)				
1714	R.C.C. collars NP2 class 100 mm dia	each	5.00	35.00	175.00
	5 Nos.				
2275	Carriage of R.C.C. pipes 100 mm dia	100 metre	0.10	358.32	35.83
	Cement of 5 joints = 5x0.00065				
	= 0.00325 cum = 0.0048 t				
	say 0.005 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.005	5000.00	25.00
2209	Carriage of Cement	tonne	0.005	145.72	0.73
	Fine sand for 5 joint = 0.0013x5				
	= 0.0065 cum = 0.006 cum				
0983	Fine sand (zone IV)	cum	0.006	900.00	5.40
2261	Carriage of Fine sand (1 part badarpur				
	sand : 2 parts jamuna sand)	cum	0.006	163.93	0.98
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.32	784.00	250.88
0124	Mason (brick layer) 2nd class	day	0.32	714.00	228.48
0114	Beldar	day	0.63	645.00	406.35
0101	Bhisti	day	0.16	714.00	114.24
	TOTAL				3342.89 W
	Add 1 % Water charges on "W"				33.43
	TOTAL				3376.32 X
	Add GST on "X" (multiplying factor 0.1405)				474.37
	TOTAL				3850.70 Y
	Add 15% CPOH on "Y"				577.60
	TOTAL				4428.30 Z
	Add Cess @ 1% on "Z"				44.28
	Cost of 10 metres				4472.58
	Cost of 1 metre				447.26
	Say				447.25
	FOR DPA 30% LESS				**313.075**

19.3.2 150 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1701	R.C.C. pipes NP2 class 150 mm dia	metre	10.00	220.00	2200.00
	(in 2 m. length = 5 Nos.)				
1715	R.C.C. collars NP2 class 150 mm dia	each	5.00	37.00	185.00
	5 Nos.				
2281	Carriage of R.C.C. pipes 150 mm dia	100 metre	0.10	597.20	59.72
	Cement of 5 joints = 5x0.0008				
	= 0.004 cum = 0.006 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.006	5000.00	30.00
2209	Carriage of Cement	tonne	0.006	145.72	0.87
	Fine sand for 5 joint = 0.0016x5				
	= 0.008 cum				
0983	Fine sand (zone IV)	cum	0.008	900.00	7.20

2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.008	163.93	1.31
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.39	784.00	305.76
0124	Mason (brick layer) 2nd class	day	0.39	714.00	278.46
0114	Beldar	day	0.78	645.00	503.10
0101	Bhisti	day	0.16	714.00	114.24
	TOTAL				3685.67 W
	Add 1 % Water charges on "W"				36.86
	TOTAL				3722.52 X
	Add GST on "X" (multiplying factor 0.1405)				523.01
	TOTAL				4245.54 Y
	Add 15% CPOH on "Y"				636.83
	TOTAL				4882.37 Z
	Add Cess @ 1% on "Z"				48.82
	Cost of 10 metres				4931.19
	Cost of 1 metre				493.12
	Say				493.10
	FOR DPA 30% LESS				**345.17**

19.3.3 250 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1702	R.C.C. pipes NP2 class 250 mm dia (in 2 m. length = 5 Nos.)	metre	10.00	365.00	3650.00
1716	R.C.C. collars NP2 class 250 mm dia 5 Nos.	each	5.00	55.00	275.00
2287	Carriage of R.C.C. pipes 250 mm dia	100 metre	0.10	1380.48	138.05
	Cement of 5 joints = 5x0.0012 = 0.006 cum = 0.009tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.009	5000.00	45.00
2209	Carriage of Cement	tonne	0.009	145.72	1.31
	Fine sand for 5 joint = 0.0024x5 = 0.012 cum				
0983	Fine sand (zone IV)	cum	0.012	900.00	10.80
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.012	163.93	1.97
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.54	784.00	423.36
0124	Mason (brick layer) 2nd class	day	0.54	714.00	385.56
0114	Beldar	day	1.50	645.00	967.50
0101	Bhisti	day	0.23	714.00	164.22
	TOTAL				6062.77 W
	Add 1 % Water charges on "W"				60.63
	TOTAL				6123.39 X
	Add GST on "X" (multiplying factor 0.1405)				860.34
	TOTAL				6983.73 Y
	Add 15% CPOH on "Y"				1047.56
	TOTAL				8031.29 Z
	Add Cess @ 1% on "Z"				80.31
	Cost of 10 metres				8111.60
	Cost of 1 metre				811.16
	Say				811.15
	FOR DPA 30% LESS				**567.805**

19.3.4 300 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1703	R.C.C. pipes NP2 class 300 mm dia	metre	10.00	450.00	4500.00

	(in 2.5 m. length = 4 Nos.)				
1717	R.C.C. collars NP2 class 300 mm dia	each	4.00	56.00	224.00
	4 Nos.				
2290	Carriage of R.C.C. pipes 300 mm dia	100 metre	0.10	1706.30	170.63
	Cement of 4 joints = 4x0.00185				
	= 0.0074 cum = 0.011 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.011	5000.00	55.00
2209	Carriage of Cement	tonne	0.011	145.72	1.60
	Fine sand for 4 joint = 0.0037x4				
	= 0.0148 say 0.015cum				
0983	Fine sand (zone IV)	cum	0.015	900.00	13.50
2261	Carriage of Fine sand (1 part badarpur				
	sand : 2 parts jamuna sand)	cum	0.015	163.93	2.46
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.59	784.00	462.56
0124	Mason (brick layer) 2nd class	day	0.59	714.00	421.26
0114	Beldar	day	1.16	645.00	748.20
0101	Bhisti	day	0.20	714.00	142.80
	TOTAL				6742.01 W
	Add 1 % Water charges on "W"				67.42
	TOTAL				6809.43 X
	Add GST on "X" (multiplying factor 0.1405)				956.73
	TOTAL				7766.16 Y
	Add 15% CPOH on "Y"				1164.92
	TOTAL				8931.08 Z
	Add Cess @ 1% on "Z"				89.31
	Cost of 10 metres				9020.39
	Cost of 1 metre				902.04
	Say				902.05
	FOR DPA 30% LESS				**631.435**

19.3.5 450 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1704	R.C.C. pipes NP2 class 450 mm dia	metre	10.00	775.00	7750.00
	(in 2.5 m. length = 4 Nos.)				
1718	R.C.C. collars NP2 class 450 mm dia	each	4.00	110.00	440.00
	4 Nos.				
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	3981.36	398.14
	Cement of 4 joints = 4x0.0041				
	= 0.0164 cum = 0.024 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.024	5000.00	120.00
2209	Carriage of Cement	tonne	0.024	145.72	3.50
	Fine sand for 4 joint = 0.0082x4				
	= 0.033 cum				
0983	Fine sand (zone IV)	cum	0.033	900.00	29.70
2261	Carriage of Fine sand (1 part badarpur				
	sand : 2 parts jamuna sand)	cum	0.033	163.93	5.41
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.75	784.00	588.00
0124	Mason (brick layer) 2nd class	day	0.75	714.00	535.50
0114	Beldar	day	1.50	645.00	967.50
0101	Bhisti	day	0.33	714.00	235.62
	TOTAL				11073.36 W
	Add 1 % Water charges on "W"				110.73
	TOTAL				11184.10 X
	Add GST on "X" (multiplying factor 0.1405)				1571.37

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				12755.46 Y
	Add 15% CPOH on "Y"				1913.32
	TOTAL				14668.78 Z
	Add Cess @ 1% on "Z"				146.69
	Cost of 10 metres				14815.47
	Cost of 1 metre				1481.55
	Say				1481.55
	FOR DPA 30% LESS				**1037.085**

19.3.6 500 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre MATERIAL				
1705	R.C.C. pipes NP2 class 500 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	950.00	9500.00
1719	R.C.C. collars NP2 class 500 mm dia 4 Nos.	each	4.00	120.00	480.00
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	3981.36	398.14
0367	Cement of 4 joints = 4x0.0045 = 0.018 cum = 0.026 tonne Portland Cement (OPC-43 grade)	tonne	0.026	5000.00	130.00
2209	Carriage of Cement	tonne	0.026	145.72	3.79
	Fine sand for 4 joints = 0.0089x4				
	= 0.0356 cum = 0.036 cum				
0983	Fine sand (zone IV)	cum	0.036	900.00	32.40
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.036	163.93	5.90
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.81	784.00	635.04
0124	Mason (brick layer) 2nd class	day	0.81	714.00	578.34
0114	Beldar	day	1.62	645.00	1044.90
0101	Bhisti	day	0.33	714.00	235.62
	TOTAL				13044.13 W
	Add 1 % Water charges on "W"				130.44
	TOTAL				13174.57 X
	Add GST on "X" (multiplying factor 0.1405)				1851.03
	TOTAL				15025.59 Y
	Add 15% CPOH on "Y"				2253.84
	TOTAL				17279.43 Z
	Add Cess @ 1% on "Z"				172.79
	Cost of 10 metres				17452.23
	Cost of 1 metre				1745.22
	Say				1745.20
	FOR DPA 30% LESS				**1221.64**

19.3.7 600 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1706	R.C.C. pipes NP2 class 600 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	1150.00	11500.00
1720	R.C.C. collars NP2 class 600 mm dia 4 Nos.	each	4.00	145.00	580.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	5972.04	597.20
	Cement of 4 joints = 4x0.0054				
	= 0.0216 cum = 0.032 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.032	5000.00	160.00
2209	Carriage of Cement	tonne	0.032	145.72	4.66
	Fine sand for 4 joints = 0.0108x4				
	= 0.043 cum				
0983	Fine sand (zone IV)	cum	0.043	900.00	38.70
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.043	163.93	7.05

	LABOUR				
0123	Mason (brick layer) 1st class	day	0.92	784.00	721.28
0124	Mason (brick layer) 2nd class	day	0.92	714.00	656.88
0114	Beldar	day	1.83	645.00	1180.35
0101	Bhisti	day	0.33	714.00	235.62
	TOTAL				15681.75 W
	Add 1 % Water charges on "W"				156.82
	TOTAL				15838.56 X
	Add GST on "X" (multiplying factor 0.1405)				2225.32
	TOTAL				18063.88 Y
	Add 15% CPOH on "Y"				2709.58
	TOTAL				20773.46 Z
	Add Cess @ 1% on "Z"				207.73
	Cost of 10 metres				20981.20
	Cost of 1 metre				2098.12
	Say				2098.10
	FOR DPA 30% LESS				**1468.67**

19.3.8 700 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1707	R.C.C. pipes NP2 class 700 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	1500.00	15000.00
1721	R.C.C. collars NP2 class 700 mm dia 4 Nos.	each	4.00	160.00	640.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	5972.04	597.20
	Cement of 4 joints = 4x0.0062 = 0.0248 cum = 0.037 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.037	5000.00	185.00
2209	Carriage of Cement	tonne	0.037	145.72	5.39
	Fine sand for 4 joints = 0.0124x4 = 0.0496 cum = 0.05 cum				
0983	Fine sand (zone IV)	cum	0.05	900.00	45.00
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.05	163.93	8.20
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.03	784.00	807.52
0124	Mason (brick layer) 2nd class	day	1.03	714.00	735.42
0114	Beldar	day	2.06	645.00	1328.70
0101	Bhisti	day	0.42	714.00	299.88
	TOTAL				19652.31 W
	Add 1 % Water charges on "W"				196.52
	TOTAL				19848.84 X
	Add GST on "X" (multiplying factor 0.1405)				2788.76
	TOTAL				22637.60 Y
	Add 15% CPOH on "Y"				3395.64
	TOTAL				26033.24 Z
	Add Cess @ 1% on "Z"				260.33
	Cost of 10 metres				26293.57
	Cost of 1 metre				2629.36
	Say				2629.35
	FOR DPA 30% LESS				**1840.545**

19.3.9 800 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1709	R.C.C. pipes NP2 class 800 mm dia	metre	10.00	1825.00	18250.00

	(in 2.5 m. length = 4 Nos.)				
1723	R.C.C. collars NP2 class 800 mm dia	each	4.00	225.00	900.00
	4 Nos.				
2303	Carriage of R.C.C. pipes 600, 700,				
	750 & 800 mm dia	100 metre	0.10	5972.04	597.20
	Cement of 4 joints = 4x0.0072				
	= 0.0288 cum = 0.042 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.042	5000.00	210.00
2209	Carriage of Cement	tonne	0.042	145.72	6.12
	Fine sand for 4 joints = 0.0143x4				
	= 0.0572 cum = 0.057 cum				
0983	Fine sand (zone IV)	cum	0.057	900.00	51.30
2261	Carriage of Fine sand (1 part badarpur				
	sand : 2 parts jamuna sand)	cum	0.057	163.93	9.34
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.14	784.00	893.76
0124	Mason (brick layer) 2nd class	day	1.14	714.00	813.96
0114	Beldar	day	2.28	645.00	1470.60
0101	Bhisti	day	0.42	714.00	299.88
	TOTAL				23502.17 W
	Add 1 % Water charges on "W"				235.02
	TOTAL				23737.19 X
	Add GST on "X" (multiplying factor 0.1405)				3335.08
	TOTAL				27072.27 Y
	Add 15% CPOH on "Y"				4060.84
	TOTAL				31133.10 Z
	Add Cess @ 1% on "Z"				311.33
	Cost of 10 metres				31444.44
	Cost of1 metre				3144.44
	Say				3144.45
	FOR DPA 30% LESS				**2201.115**

19.3.10 900 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1710	R.C.C. pipes NP2 class 900 mm dia	metre	10.00	2550.00	25500.00
	(in 2.5 m. length = 4 Nos.)				
1724	R.C.C. collars NP2 class 900 mm dia	each	4.00	240.00	960.00
	4 Nos.				
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	0.10	8958.06	895.81
	Cement of 4 joints = 4x0.0082				
	= 0.0328 cum = 0.0488 t Say 0.049				
0367	Portland Cement (OPC-43 grade)	tonne	0.049	5000.00	245.00
2209	Carriage of Cement	tonne	0.049	145.72	7.14
	Fine sand for 4 joints = 0.0164x4				
	= 0.066 cum				
0983	Fine sand (zone IV)	cum	0.066	900.00	59.40
2261	Carriage of Fine sand (1 part badarpur				
	sand : 2 parts jamuna sand)	cum	0.066	163.93	10.82
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.25	784.00	980.00
0124	Mason (brick layer) 2nd class	day	1.25	714.00	892.50
0114	Beldar	day	3.00	645.00	1935.00
0101	Bhisti	day	0.50	714.00	357.00
	TOTAL				31842.67 W
	Add 1 % Water charges on "W"				318.43
	TOTAL				32161.09 X
	Add GST on "X" (multiplying factor 0.1405)				4518.63
	TOTAL				36679.73 Y

Code	Description	Unit	Quantity	Rate	Amount
	Add 15% CPOH on "Y"				5501.96
	TOTAL				42181.68 Z
	Add Cess @ 1% on "Z"				421.82
	Cost of 10 metres				42603.50
	Cost of 1 metre				4260.35
	Say				4260.35
	FOR DPA 30% LESS				**2982.245**

19.3.11 1000 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1711	R.C.C. pipes NP2 class 1000 mm dia	metre	10.00	2950.00	29500.00
	(in 2.5 m. length = 4 Nos.)				
1725	R.C.C. collars NP2 class 1000 mm dia	each	4.00	295.00	1180.00
	4 Nos.				
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	0.10	11944.08	1194.41
	Cement of 4 joints = 4x0.0092				
	= 0.0368 cum = 0.055 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.055	5000.00	275.00
2209	Carriage of Cement	tonne	0.055	145.72	8.01
	Fine sand for 4 joints = 0.0185x4				
	= 0.074 cum				
0983	Fine sand (zone IV)	cum	0.074	900.00	66.60
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.074	163.93	12.13
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.36	784.00	1066.24
0124	Mason (brick layer) 2nd class	day	1.36	714.00	971.04
0114	Beldar	day	4.33	645.00	2792.85
0101	Bhisti	day	0.50	714.00	357.00
	TOTAL				37423.28 W
	Add 1 % Water charges on "W"				374.23
	TOTAL				37797.52 X
	Add GST on "X" (multiplying factor 0.1405)				5310.55
	TOTAL				43108.07 Y
	Add 15% CPOH on "Y"				6466.21
	TOTAL				49574.28 Z
	Add Cess @ 1% on "Z"				495.74
	Cost of 10 metres				50070.02
	Cost of 1 metre				5007.00
	Say				5007.00
	FOR DPA 30% LESS				**3504.9**

19.3.12 1100 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1712	R.C.C. pipes NP2 class 1100 mm dia	metre	10.00	3250.00	32500.00
	(in 2.5 m. length = 4 Nos.)				
1726	R.C.C. collars NP2 class 1100 mm dia	each	4.00	315.00	1260.00
	4 Nos.				
2333	Carriage of R.C.C. pipes 1100 mm dia	100 metre	0.10	11944.08	1194.41
	Cement of 4 joints = 4x0.0103				
	=0.0412 cum = 0.061 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.061	5000.00	305.00
2209	Carriage of Cement	tonne	0.061	145.72	8.89
	Fine sand for 4 joints = 0.0206x4				
	= 0.0824 cum = 0.082 cum				
0983	Fine sand (zone IV)	cum	0.082	900.00	73.80
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.082	163.93	13.44

	LABOUR				
0123	Mason (brick layer) 1st class	day	1.47	784.00	1152.48
0124	Mason (brick layer) 2nd class	day	1.47	714.00	1049.58
0114	Beldar	day	6.30	645.00	4063.50
0101	Bhisti	day	0.60	714.00	428.40
	TOTAL				42049.50 W
	Add 1 % Water charges on "W"				420.49
	TOTAL				42469.99 X
	Add GST on "X" (multiplying factor 0.1405)				5967.03
	TOTAL				48437.03 Y
	Add 15% CPOH on "Y"				7265.55
	TOTAL				55702.58 Z
	Add Cess @ 1% on "Z"				557.03
	Cost of 10 metress				56259.61
	Cost of 1 metre				5625.96
	Say				5625.95
	FOR DPA 30% LESS				**3938.165**

19.3.13 1200 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 metre				
	MATERIAL				
1713	R.C.C. pipes NP2 class 1200 mm dia	metre	10.00	3575.00	35750.00
	(in 2.5 m. length = 4 Nos.)				
1727	R.C.C. collars NP2 class 1200 mm dia	each	4.00	375.00	1500.00
	4 Nos.				
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	0.10	11944.08	1194.41
	Cement of 4 joints = 4x0.0114				
	= 0.0456 cum = 0.068 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.068	5000.00	340.00
2209	Carriage of Cement	tonne	0.068	145.72	9.91
	Fine sand for 4 joints = 0.0229x4				
	= 0.0916 cum = 0.092 cum				
0983	Fine sand (zone IV)	cum	0.092	900.00	82.80
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.092	163.93	15.08
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.59	784.00	1246.56
0124	Mason (brick layer) 2nd class	day	1.59	714.00	1135.26
0114	Beldar	day	8.67	645.00	5592.15
0101	Bhisti	day	0.67	714.00	478.38
	TOTAL				47344.55 W
	Add 1 % Water charges on "W"				473.45
	TOTAL				47817.99 X
	Add GST on "X" (multiplying factor 0.1405)				6718.43
	TOTAL				54536.42 Y
	Add 15% CPOH on "Y"				8180.46
	TOTAL				62716.89 Z
	Add Cess @ 1% on "Z"				627.17
	Cost of 10 metres				63344.05
	Cost of 1 metre				6334.41
	Say				6334.40
	FOR DPA 30% LESS				**4434.08**

19.4 Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :

19.4.1 Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :

19.4.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
4.1.8	Details of cost for 1 manhole Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.51x1.41x0.20 m = 0.426 cum Say 0.43 cum Rate as per item no 4.1.8 of SH : Concrete Work Brick work with bricks of class designation 7.5 in foundation & plinth in cement mortar 1:4 (1 cement : 4 coarse sand) 4.32x0.23x0.35 m = 0.348 cum Less for pipe 2x3.14x(0.15m)²x0.23m = (-) 0.008 cum Total = 0.340 cum Rate as per item no 6.1.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x0.90x(0.80/2) x (0.30+0.20)/2 = 0.18 cum Less for pipe 1x0.90x3.14/4x(0.15m)² = (-) 0.02 cum = 0.16 cum Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.40mx0.05m = 0.17 sqm 2x½x0.80x0.10m = 0.08 sqm Total= 0.25 sqm Rate as per item no 13.9.1 of SH : Finishing Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.36x1.26x0.15m = 0.257 cum Less for cover 0.61x0.455x0.15m = (-) 0.042 cum = 0.215 cum Say 0.22 cum Rate as per item no 5.3 of SH : RCC Work Less labour for not lifting the materilas upto floor five level Coolie Mild steel reinforcement for slab : 0.22 cum @ 48.06 kg/cum = 10.57 kg Rate as per item no. 5.22.1 of SH : RCC work Form work = 0.90x0.80 = 0.72 sqm Less cover = 0.61x0.455m = (-) 0.278 sqm = 0.442 sqm Say 0.44 sqm Rate as per item no	cum	0.43	6326.05	2720.20 A
6.1.1					
		cum	0.34	6882.00	2339.88 A
4.1.3					
		cum	0.16	7365.15	1178.42 A
13.9.1					
		sqm	0.25	386.55	96.64 A
5.3					
		cum	0.22	10719.30	2358.25 A
0115		day	-0.41	645.00	-264.45
5.22.1					

		kg	10.57	88.95	940.20 A
5.9.3					
		sqm	0.44	766.55	337.28 A
0123		day	0.06	784.00	47.04
0124		day	0.06	714.00	42.84
1354					
		each	1.00	1400.00	1400.00
9977		L.S.	6.76	2.12	14.33
9999					
		L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				11253.63 W
	Add 1 % Water charges on "W-A"				12.83
	TOTAL				11266.45 X
	Add GST on "X-A" (multiplying factor 0.1405)				182.03
	TOTAL				11448.48 Y
	Add 15% CPOH on "Y-A"				221.64
	TOTAL				11670.13 Z
	Add Cess @ 1% on "Z-A"				16.99
	Cost of each				11687.12
	Say				11687.10
	FOR DPA 30% LESS				**8180.97**

19.4.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate	Amount
4.1.8 6.36.1 4.1.3 13.9.1	Details of cost for 1 manhole Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.51x1.41x0.20 m = 0.426 cum Say 0.43 cum Rate as per item no 4.1.8 of SH : Concrete Work Brick work with sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement :4 coarse sand) 4.32x0.23x0.35 m = 0.348 cum Less for pipe 2x3.14x(0.15m)²x0.23m = (-) 0.008 cum Total= 0.340 cum Rate as per item No 6.36.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x0.90x(0.80/2) x (0.30+0.20)/2 = 0.18 cum Less for pipe 1x0.90x3.14/4x(0.15m)² = (-) 0.02 cum Total= 0.16 cum Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.40mx0.05m = 0.17 sqm 2x½x0.80x0.10m = 0.08 sqm Total= 0.25 sqm Rate as per item no 13.9.1 of SH : Finishing	cum cum cum sqm	0.43 0.34 0.16 0.25	6326.05 6528.70 7365.15 386.55	2720.20 A 2219.76 A 1178.42 A 96.64 A
5.3	Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.36x1.26x0.15m = 0.257 cum Less for cover 0.61x0.455x0.15m = (-) 0.042 cum = 0.215 cum Say 0.22 cum Rate as per item no 5.3 of SH : RCC Work	cum	0.22	10719.30	2358.25 A
	Less labour for not lifting the materilas upto floor five level				
0115	Coolie	day	-0.41	645.00	-264.45

5.22.1	Mild steel reinforcement for slab : 0.22 cum @ 48.06 kg/cum = 10.57 kg Rate as per item no. 5.22.1 of SH : RCC work	kg	10.57	88.95	940.20 A
	Form work = 0.90x0.80 = 0.72 sqm				
	= 0.442 sqm Say 0.44 sqm				
	Less cover = 0.61x0.455m				
	= (-) 0.278 sqm				
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work	sqm	0.44	766.55	337.28 A
	LABOUR				
	Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.06	784.00	47.04
0124	Mason (brick layer) 2nd class	day	0.06	714.00	42.84
1354	Rectangular cover 455x610 mm with frame (low duty)	each	1.00	1400.00	1400.00
	(inside)				
9977	Carriage of C.I. cover & frame	L.S.	6.76	2.12	14.33
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				11133.51 W
	Add 1 % Water charges on "W-A"				12.83
	TOTAL				11146.33 X
	Add GST on "X-A" (multiplying factor 0.1405)				182.03
	TOTAL				11328.36 Y
	Add 15% CPOH on "Y-A"				221.64
	TOTAL				11550.00 Z
	Add Cess @ 1% on "Z-A"				16.99
	Cost of each				11567.00
	Say				11567.00
	FOR DPA 30% LESS				**8096.9**

19.4.2 Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 manhole MATERIAL				
	Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum				
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.55	6326.05	3479.33 A
	Brick work with bricks of class designation 7.5 in foundation & plinth in cement mortar 1:4 (1 cement : 4 coarse sand) 5.12x0.23x0.80 m = 0.942 cum Less for pipe 2x3.14x(0.15m)²x0.23m =(-) 0.008 cum Total= 0.934 cum Say 0.93 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.93	6882.00	6400.26 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x1.20x(0.90/2) x (0.30+0.20)/2 = 2.70 cum Less for pipe 1.20x3.14/4x(0.15m)²				

	= (-) 0.021 cum				
	Total= 0.249 cum say 0.25				
4.1.3	Rate as per item no. 4.1.3 of				
	SH : Concrete Work	cum	0.25	7365.15	1841.29 A
	12 mm cement plaster 1:3 (1 cement :				
	3 coarse sand) finished with floating				
	coat of neat cement				
	4.20mx0.50m = 2.10 sqm				
	2x½x0.90x0.10m = 0.09 sqm				
	= 2.19 sqm				
13.9.1	Rate as per item no 13.9.1 of				
	SH : Finishing	sqm	2.19	386.55	846.54 A
	Reinforced cement concrete 1:1.5:3				
	(1 cement : 1.5 coarse sand : 3 graded				
	stone aggregate 20 mm nominal size)				
	For slab : 1.66x1.36x0.15m = 0.339 cum				
	Less for cover 0.7854x(0.50)²x0.15m				
	= (-) 0.029 cum				
	= 0.31 cum				
5.3	Rate as per item no 5.3 of				
	SH : RCC Work	cum	0.31	10719.30	3322.98 A
	Less labour for not lifting the materilas				
	upto floor five level				
0115	Coolie	day	-0.58	645.00	-374.10
	Mild steel reinforcement for slab :				
	0.31 cum @ 80.09 kg/cum = 24.83 kg	kg	24.83	88.95	2208.63 A
5.22.1	Rate as per item no. 5.22.1 of				
	SH : RCC work				
	Form work = 1.20x0.90 = 1.08 sqm				
	Less cover = 3.14/4x(0.50)²				
	= (-) 0.196 sqm				
	= 0.884 sqm Say 0.88 sqm				
5.9.3	Rate as per item no 5.9.3 of				
	SH : RCC Work	sqm	0.88	766.55	674.56 A
	LABOUR				
	Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.08	784.00	62.72
0124	Mason (brick layer) 2nd class	day	0.08	714.00	57.12
1356	500 mm dia cover with frame				
	(medium duty)	each	1.00	4400.00	4400.00
9977	Carriage of C.I. cover & frame	L.S.	6.76	2.12	14.33
9999	Painting of C.I. cover & frame with				
	coal tar	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	16.64	2.12	35.28
	TOTAL				22983.27 W
	Add 1 % Water charges on "W-A"				42.10
	TOTAL				23025.37 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				597.37
	TOTAL				23622.75 Y
	Add 15% CPOH on "Y-A"				727.37
	TOTAL				24350.12 Z
	Add Cess @ 1% on "Z-A"				55.77
	Cost of each				24405.88
	Say				24405.90
	FOR DPA 30% LESS				**17084.13**

19.4.2.2	**With Sewer bricks conforming to IS : 4885**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**

4.1.8	Details of cost for 1 manhole MATERIAL Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum Rate as per item no 4.1.8 of SH : Concrete Work Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand) 5.12x0.23x0.80 m = 0.942 cum Less for pipe 2x3.14x(0.15m)²x0.23m = (-) 0.008 cum = 0.934 cum Say 0.93 cum	cum	0.55	6326.05	3479.33 A
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.93	6528.70	6071.69 A
4.1.3	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x1.20x(0.90/2) x (0.30+0.20)/2 = 2.70 cum Less for pipe 1.20x3.14/4x(0.15m)² = (-) 0.021 cum = 0.249 cum say 0.25 Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.25	7365.15	1841.29 A
13.9.1	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20mx0.50m = 2.10 sqm 2x½x0.90x0.10m = 0.09sqm = 2.19 sqm Rate as per item no 13.9.1 of SH : Finishing	sqm	2.19	386.55	846.54 A
5.3	Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.66x1.36x0.15m = 0.339 cum Less for cover 0.7854x(0.50)²x0.15m = (-) 0.029 cum = 0.31 cum Rate as per item no 5.3 of SH : RCC Work	cum	0.31	10719.30	3322.98 A
0115	Less labour for not lifting the materilas upto floor five level Coolie	day	-0.58	645.00	-374.10
5.22.1	Mild steel reinforcement for slab : 0.31 cum @ 80.09 kg/cum = 24.83 kg Rate as per item no. 5.22.1 of SH : RCC work	kg	24.83	88.95	2208.63 A
5.9.3	Form work = 1.20x0.90 = 1.08 sqm Less cover = 3.14/4x(0.50)² = (-) 0.196 sqm = 0.884 sqm Say 0.88 sqm Rate as per item no 5.9.3 of SH : RCC Work	sqm	0.88	766.55	674.56 A
	LABOUR Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.08	784.00	62.72
0124	Mason (brick layer) 2nd class	day	0.08	714.00	57.12
1356	500 mm dia cover with frame				

	(medium duty)	each	1.00	4400.00	4400.00
9977	Carriage of C.I. cover & frame	L.S.	6.76	2.12	14.33
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	16.64	2.12	35.28
	TOTAL				22654.71 W
	Add 1 % Water charges on "W-A"				42.10
	TOTAL				22696.80 X
	Add GST on "X-A" (multiplying factor 0.1405)				597.37
	TOTAL				23294.18 Y
	Add 15% CPOH on "Y-A"				727.37
	TOTAL				24021.55 Z
	Add Cess @ 1% on "Z-A"				55.77
	Cost of each				24077.31
	Say				24077.30
	FOR DPA 30% LESS				**16854.11**

19.4.3 Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (heavy duty) 560 mm internal diameter, total weight of cover and frame to be not less than 208 kg (weight of cover 108 kg and weight of frame 100 kg) :

19.4.3.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 manhole MATERIAL Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum Rate as per item no 4.1.8 of SH : Concrete Work				
4.1.8		cum	0.55	6326.05	3479.33 A
6.1.1	Brick work with bricks of class designation 7.5 in foundation & plinth in cement mortar 1:4 (1 cement : 4 coarse sand) 5.12x0.23x0.65 m = 0.765 cum 1x0.56x0.23x0.15 m = 0.019 cum 1x0.79x0.23x0.15 = 0.027 cum = 0.811 cum Less for pipe 2x3.14x(0.15m)²x0.23m = (-) 0.008 cum = 0.803 cum Say 0.80 cum Rate as per item no 6.1.1 of SH : Brick Work	cum	0.80	6882.00	5505.60 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x1.20x(0.90/2)x(0.30+0.20)/2 = 0.27 cum Less for pipe 1.20x3.14/4x(0.15m)² = (-) 0.021 cum = 0.249 cum say 0.25				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.25	7365.15	1841.29 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20mx0.35m = 1.47 sqm 2x0.56x0.15 m = 0.17 sqm 2x½x0.90x0.10m = 0.09 sqm For fixing cover 0.96x0.96 m =0.922 sqm = 2.652 sqm Less cover 3.14/4x(0.56)² = (-) 0.246 sqm = 2.406 sqm Say 2.41 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.41	386.55	931.59 A
	Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)				

	For slab : 1.66x1.36x0.15m = 0.339 cum Add extra concreting 1x(0.56+0.79)x 0.15x0.15 m = 0.03 cum Total= 0.369 cum Less for cover 0.7854x$(0.56)^2$x0.15m = (-) 0.037 cum = 0.332 cum Say 0.33 cum				
5.3	Rate as per item no 5.3 of SH : RCC Work	cum	0.33	10719.30	3537.37 A
	Less labour for not lifting the materilas upto floor five level				
0115	Coolie	day	-0.62	645.00	-399.90
	Steel reinforcement for slab @ 80.09 Kg/cum For 0.33 cum = 26.43 kg.				
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	26.43	88.95	2350.95 A
	Form work inside area of man-hole 1.20x0.90 = 1.08 sqm Less cover = 3.14/4x$(0.56)^2$ = (-) 0.246 sqm = 0.834 sqm Say 0.83 sqm				
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work	sqm	0.83	766.55	636.24 A
	LABOUR Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.08	784.00	62.72
0124	Mason (brick layer) 2nd class	day	0.08	714.00	57.12
3860	560 mm dia cover with frame (Heavy duty)	each	1.00	9100.00	9100.00
9977	Carriage of C.I. cover & frame	L.S.	13.52	2.12	28.66
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	20.28	2.12	42.99
	TOTAL				27188.28 W
	Add 1 % Water charges on "W-A"				89.06
	TOTAL				27277.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				1263.80
	TOTAL				28541.14 Y
	Add 15% CPOH on "Y-A"				1538.82
	TOTAL				30079.95 Z
	Add Cess @ 1% on "Z-A"				117.98
	Cost of each				30197.93
	Say				30197.95
	FOR DPA 30% LESS				**21138.565**

19.4.3.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate	Amount

4.1.8 6.36.1 4.1.3	Details of cost for 1 manhole MATERIAL Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum Rate as per item no 4.1.8 of SH : Concrete Work sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement : 4 coarse sand) 5.12x0.23x0.65 m = 0.765 cum 1x0.56x0.23x0.15 m = 0.019 cum 1x0.79x0.23x0.15 = 0.027 cum Total= 0.811 cum Less for pipe 2x3.14x(0.15m)²x 0.23m = (-) 0.008 cum = 0.803 cum Say 0.80 cum Rate as per item No 6.36.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x1.20x(0.90/2)x(0.30+0.20)/2 = 0.27 cum Less for pipe 1.20x3.14/4x(0.15m)² = (-) 0.021 cum = 0.249 cum say 0.25 Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20mx0.35m = 1.47 sqm 2x0.56x0.15 m = 0.17 sqm 2x½x0.90x0.10m = 0.09 sqm	cum cum cum	0.55 0.80 0.25	6326.05 6528.70 7365.15	3479.33 A 5222.96 A 1841.29 A
13.9.1	For fixing cover 0.96x0.96 m =0.922 sqm Total= 2.652 sqm Less cover 3.14/4x(0.56)² = (-) 0.246 sqm = 2.406 sqm Say 2.41 sqm Rate as per item no 13.9.1 of SH : Finishing	sqm	2.41	386.55	931.59 A
5.3	Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.66x1.36x0.15m = 0.339 cum Add extra concreting 1x(0.56+0.79)x 0.15x0.15 m = 0.03 cum = 0.369 cum Less for cover 0.7854x(0.56)²x0.15m = (-) 0.037 cum = 0.332 cum Say 0.33 cum Rate as per item no 5.3 of SH : RCC Work	cum	0.33	10719.30	3537.37 A
0115	Less labour for not lifting the materilas upto floor five level Coolie	day	-0.62	645.00	-399.90
5.22.1	Steel reinforcement for slab @ 80.09 Kg/cum For 0.33 cum = 26.43 kg Rate as per item no. 5.22.1 of SH : RCC work	kg	26.43	88.95	2350.95 A
5.9.3	Form work inside area of man-hole 1.20x0.90 = 1.08 sqm Less cover = 3.14/4x(0.56)² = (-) 0.246 sqm = 0.834 sqm Say 0.83 sqm Rate as per item no 5.9.3 of SH : RCC Work	sqm	0.83	766.55	636.24 A
	LABOUR				

	Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.08	784.00	62.72
0124	Mason (brick layer) 2nd class	day	0.08	714.00	57.12
3860	560 mm dia cover with frame				
	(Heavy duty)	each	1.00	9100.00	9100.00
9977	Carriage of C.I. cover & frame	L.S.	13.52	2.12	28.66
9999	Painting of C.I. cover & frame				
	with coal tar	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	20.28	2.12	42.99
	TOTAL				26905.64 W
	Add 1 % Water charges on "W-A"				89.06
	TOTAL				26994.70 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				1263.80
	TOTAL				28258.50 Y
	Add 15% CPOH on "Y-A"				1538.82
	TOTAL				29797.31 Z
	Add Cess @ 1% on "Z-A"				117.98
	Cost of each				29915.29
	Say				29915.30
	FOR DPA 30% LESS				**20940.71**

19.5 Extra for depth for manholes :

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one metre MATERIAL Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 4.32x0.23x1.0 m = 0.994 cum Say 0.99 cum				6813.18 A
6.1.1	Rate as per item no. 6.1.1 of S.H : brick work	cum	0.99	6882.00	1314.27 A
13.9.1	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.40x1 m = 3.40 sqm Rate as per item no 13.9.1 of SH : Finishing	sqm	3.40	386.55	8127.45
	TOTAL				8127.45
	Cost for one metre Say				8127.45
	FOR DPA 30% LESS				**5689.215**

19.5.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one metre MATERIAL Brick work with modular extruded brunt fly ash clay sewer bricks conforming to IS : 4885 in cement mortar 1:4 (1 cement : 4 coarse sand) 4.32x0.23x1.0 m = 0.994 cum				6463.41 A
6.36.1	Say 0.99 cum	cum	0.99	6528.70	1314.27 A
13.9.1	Rate as per item No 6.36.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.40x1 m = 3.40 sqm Rate as per item no 13.9.1 of SH : Finishing	sqm	3.40	386.55	7777.68
	TOTAL				7777.68
	Cost for one metre Say				7777.70
	FOR DPA 30% LESS				**5444.39**

19.5.2 Size 120x90 cm

19.5.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount

6.1.1 13.9.1	Details of cost for one metre MATERIAL Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement 4: coarse sand) 5.12x0.23x1.0 m = 1.178 cum Say 1.18 cum Rate as per item no. 6.1.1 of S.H : brick work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20x1 m = 4.20 sqm Rate as per item no 13.9.1 of SH : Finishing TOTAL Cost for one metre Say	cum sqm	1.18 4.20	6882.00 386.55	8120.76 A 1623.51 A 9744.27 9744.27 9744.25
	FOR DPA 30% LESS				**6820.975**

19.5.2.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate	Amount
6.36.1 13.9.1	Details of cost for one metre MATERIAL Brick work with modular extruded brunt fly ash clay sewer bricks conforming to IS :4885 in cement mortar 1:4 (1 cement: 4 coarse sand) 5.12x0.23x1.0 m = 1.178 cum Say 1.18 cum Rate as per item No 6.36.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20x1 m = 4.20 sqm Rate as per item no 13.9.1 of SH : Finishing TOTAL Cost for one metre Say	cum sqm	1.18 4.20	6528.70 386.55	7703.87 A 1623.51 A 9327.38 9327.38 9327.40
	FOR DPA 30% LESS				**6529.18**

19.6 Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand), inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :

19.6.1 0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) :

19.6.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) 1.67x1.67x0.225 m = 0.63 cum Rate as per item no 4.1.6 of SH : Concrete Work Brick work with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.14x0.074x0.23 = 0.061 3.14x(1.14+0.79)/2x0.711x0.23 = 0.496 Total= 0.557 Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.230x0.10 m = 0.018 cum $2x3.14/4x(0.15)^2x0.230$ = 0.008 cum Total= 0.026 cum				
4.1.6	Net quantity 0.557-0.026 = 0.531	cum	0.63	6670.25	4202.26 A
6.1.1	Say 0.53	cum	0.53	6882.00	3647.46 A
6.9	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.02	13378.10	267.56 A
	Brick work in arches with 7.5 class designation brick in cement mortar 1:3 (1 cement : 3 fine sand) 2x½x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum Rate as per item no 6.9 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : $3.14/4x(0.91+0.82)^2x0.20$ = 0.118 cum $[(2x8.133)/360]x(4/3)x3.14x(0.45)^3$ =0.017 cum Total = 0.135 cum Less pipe : $0.91x3.14/4x(0.15)2^2$ = (-) 0.016 cum = 0.119 cum Say 0.12 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Work	cum	0.12	7365.15	883.82 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate : 20 mm nominal size) For fixing cover : $3.14/4 x d^2$ x thickness $3.14/4x(1.020)^2x0.15$ m =0.123 cum Less cover $3.14/4x(0.28)^2$ x 0.15 m = (-) 0.037 cum Total = 0.086 cum Say 0.09 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work	cum	0.09	9375.20	843.77 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(0.80+0.56)/2x0.49 = 1.05 sqm 3.14x0.56x0.075 = 0.13 sqm Benching $3.14x(0.80)^2/4$-0.80x0.15+0.80x½x 3.14x0.15 = 0.57 sqm Total= 1.75 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	1.75	386.55	676.46 A
	LABOUR Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.06	784.00	47.04
0124	Mason (brick layer) 2nd class	day	0.06	714.00	42.84
	S.F.R.C cover				
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	880.00	880.00
9977	CARRIAGE	L.S.	6.89	2.12	14.61
9999	Sundries	L.S.	16.9	2.12	35.83

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				11541.64 W
	Add 1 % Water charges on "W-A"				10.20
	TOTAL				11551.85 X
	Add GST on "X-A" (multiplying factor 0.1405)				144.79
	TOTAL				11696.63 Y
	Add 15% CPOH on "Y-A"				176.30
	TOTAL				11872.93 Z
	Add Cess @ 1% on "Z-A"				13.52
	Cost of one manhole				11886.45
	Say				11886.45
	FOR DPA 30% LESS				**8320.515**
19.6.1.2	**With Sewer bricks conforming to IS : 4885**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate: 40 mm nominal size) 1.67x1.67x0.225 m = 0.63 cum				
4.1.6 6.36.1 6.37 4.1.3	Rate as per item no 4.1.6 of SH : Concrete Work Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.14x0.074x0.23 = 0.061 3.14x(1.14+0.79)/2x0.711x0.23 = 0.496 = 0.557 Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.230x0.10 m = 0.018 cum 2x3.14/4x(0.15)²x0.230 = 0.008 cum Total= 0.026 cum Net quantity 0.557-0.026 = 0.531 Say 0.53 Rate as per item No 6.36.1 of SH : Brick Work Brick work in arches with modular extruded brunt fly ash clay sewer bricks conforming to IS : 4885 in cement mortar 1:3 (1 cement : 3 fine sand) 2x½x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum Rate as per item No 6.37 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : 3.14/4x(0.91+0.82)²x0.20 = 0.118 cum [(2x8.133)/360]x(4/3)x3.14x(0.45)³ =0.017 cum Total= 0.135 cum Less pipe : 0.91x3.14/4x(0.15)² = (-) 0.016 cum Total= 0.119 cum Say 0.12 cum Rate as per item no. 4.1.3 of SH : concrete Work Cement concrete 1:2:4 (1 cement : 2 coarse sand :	cum cum cum cum	0.63 0.53 0.02 0.12	6670.25 6528.70 11763.25 7365.15	4202.26 A 3460.21 A 235.27 A 883.82 A

4.2.3 13.9.1 0123 0124 7135 9977 9999	Rate as per item no 4.2.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(0.80+0.56)/2x0.49 = 1.05 sqm 3.14x0.56x0.075 = 0.13 sqm Benching 3.14x(0.80)²/4-0.80x0.15+0.80x½x3.14x 0.15 = 0.57 sqm Total= 1.75 sqm Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : Mason (brick layer) 1st class Mason (brick layer) 2nd class S.F.R.C cover Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20 CARRIAGE Sundries TOTAL Add 1 % Water charges on "W-A" TOTAL Add GST on "X-A" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y-A" TOTAL Add Cess @ 1% on "Z-A" Cost of one manhole Say	cum sqm day day each L.S. L.S.	0.09 1.75 0.06 0.06 1.00 6.89 16.90	9375.20 386.55 784.00 714.00 880.00 2.12 2.12	843.77 A 676.46 A 47.04 42.84 880.00 14.61 35.83 11322.10 W 10.20 11332.30 X 144.79 11477.09 Y 176.30 11653.38 Z 13.52 11666.90 11666.90
	FOR DPA 30% LESS				**8166.83**

19.7 Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 m

19.7.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
6.1.1	Detail of cost of 0.76 m depth Brick work in foundation with 7.5 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand) Rate as per item no 6.1.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone 20mm nominal size)	cum	0.63	6882.00	4335.66 A
4.1.3 13.9.1	Rate as per item no 4.1.3 of SH : Concrete Work 12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with neat cement. Rate as per item no 13.9.1 of SH : Finishing Cost for 0.76 metre Cost for 1.00 metre Say	cum sqm	0.01 2.33	7365.15 386.55	73.65 A 900.66 A 5309.97 6986.81 6986.80
	FOR DPA 30% LESS				**4890.76**

19.7.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate	Amount
6.36.1 4.1.3 13.9.1	Detail of cost of 0.76 m extra depth Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand) Rate as per item No 6.36.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone 20mm nominal size) Rate as per item no 4.1.3 of SH : Concrete Work 12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement. Rate as per item no 13.9.1 of SH : Finishing Cost for 0.76 metre Cost for 1.00 metre Say	cum cum sqm	0.63 0.01 2.33	6528.70 7365.15 386.55	4113.08 A 73.65 A 900.66 A 5087.39 6693.94 6693.95
	FOR DPA 30% LESS				**4685.765**

19.8 Constructing brick masonry circular manhole 1.22 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement :4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement foundation concrete 1:3:6 (1 cement
: 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :
19.8.1 1.68 m deep with SFRC Cover and frame (heavy duty HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :

19.8.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

	Details of cost for 1 manhole MATERIAL				
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) 1.98x1.98x0.30 m = 1.178 cum Say 1.18 cum				
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work	cum	1.18	6670.25	7870.90 A
	Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.45x0.24x0.23 = 0.251 3.14x(1.45+0.79)/2x1.32x0.23 = 1.069 Total= 1.320 Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.230x0.10 m = 0.018 cum 2x3.14/4x(0.15)²x0.230 = 0.008 cum Total = 0.026 cum Net quantity 1.320-0.026 = 1.294 Say 1.29 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	1.29	6882.00	8877.78 A
6.9	Brick work in arches with 7.5 class designation brick in cement mortar 1:3 (1 cement : 3 coarse sand) 2x½x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum Rate as per item no 6.9 of SH : Brick Work	cum	0.02	13378.10	267.56 A
4.1.3	Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : 3.14/4x(1.22)²x0.20 = 0.234 cum [(2x8.133)/360]x(4/3)x3.14x(0.61)³ =0.043 cum Total= 0.277 cum Less pipe :1.22x3.14/4x(0.15)²(-) = 0.0216 cum Total= 0.2554 cum Say 0.26 cum Rate as per item	cum	0.26	7365.15	1914.94 A
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work	cum	0.09	9375.20	843.77 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(1.136+0.56)/2x1.216 = 3.241 sqm 3.14x0.56x0.075 = 0.13 sqm 3.14x(1.136)²/4-1.136x1/2x3.14x0.15 = 1.112 sqm Total= 4.483 sqm Say 4.48 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	4.48	386.55	1731.74 A
	LABOUR				
	Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.10	784.00	78.40
0124	Mason (brick layer) 2nd class	day	0.10	714.00	71.40
	S.F.R.C manhole cover				
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame -				

	H.D. - 20	each	1.00	880.00	880.00
9977	CARRIAGE	L.S.	6.89	2.12	14.61
9999	Sundries	L.S.	16.9	2.12	35.83
	TOTAL				22586.92 W
	Add 1 % Water charges on "W-A"				10.80
	TOTAL				22597.73 X
	Add GST on "X-A" (multiplying factor 0.1405)				153.29
	TOTAL				22751.02 Y
	Add 15% CPOH on "Y-A"				186.65
	TOTAL				22937.67 Z
	Add Cess @ 1% on "Z-A"				14.31
	Cost of one manhole				22951.97
	Say				22951.95
	FOR DPA 30% LESS				**16066.365**

19.8.1.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate	Amount
4.1.6	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate : 40 mm nominal size) 1.98x1.98x0.30 m = 1.178 cum Say 1.18 cum Rate as per item no 4.1.6 of SH : Concrete Work	cum	1.18	6670.25	7870.90 A
6.36.1	Brick work with modular extruded brunt fly ash clay sewer bricks in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.45x0.24x0.23 = 0.251 3.14x(1.45+0.79)/2x1.32x0.23 = 1.069 Total = 1.320 Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.230x0.10 m = 0.018 cum	cum	1.29	6528.70	8422.02 A
6.37	2x3.14/4x(0.15)²x0.230 = 0.008 cum Total= 0.026 cum	cum	0.02	11763.25	235.27 A
4.1.3	Net quantity 1.320-0.026 = 1.294 Say 1.29 cum	cum	0.26	7365.15	1914.94 A
4.2.3	Rate as per item No 6.36.1 of SH : Brick Work Brick work in arches with modular extruded brunt fly ash clay sewer bricks in cement mortar 1:3 (1 cement	cum	0.09	9375.20	843.77 A
13.9.1	: 3 fine sand)	sqm	4.48	386.55	1731.74 A
0123	2x½x3.14x0.25 m x0.230x0.10 m	day	0.10	784.00	78.40
0124	Mason (brick layer) 2nd class	day	0.10	714.00	71.40
7135	S.F.R.C manhole cover and frame Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	880.00	880.00
9977	CARRIAGE	L.S.	6.89	2.12	14.61
9999	Sundries	L.S.	16.9	2.12	35.83
	TOTAL				22098.87 W
	Add 1 % Water charges on "W-A"				10.80
	TOTAL				22109.67 X
	Add GST on "X-A" (multiplying factor 0.1405)				153.29
	TOTAL				22262.96 Y
	Add 15% CPOH on "Y-A"				186.65
	TOTAL				22449.61 Z
	Add Cess @ 1% on "Z-A"				14.31
	Cost of one manhole				22463.92
	Say				22463.90
	FOR DPA 30% LESS				**15724.73**

19.9 Extra depth for circular type manhole 1.22 m internal dia (at bottom) beyond 1.68 m to 2.29 m :

19.9.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount

6.1.1 13.9.1	Detail of cost of 0.61 m extra depth Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) Rate as per item no 6.1.1 of SH : Brick Work 12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement. Rate as per item no 13.9.1 of SH : Finishing Cost for 0.61 metre Cost for 1.00 metre Say	cum sqm	0.66 2.56	6882.00 386.55	4542.12 A 989.57 A 5531.69 9068.34 9068.35
	FOR DPA 30% LESS				**6347.845**

19.19.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost of 0.61 m extra depth Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand)				
6.36.1 13.9.1	Rate as per item No 6.36.1 of SH : Brick Work 12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement. Rate as per item no 13.9.1 of SH : Finishing Cost for 0.61 metre Cost for 1.00 metre Say	cum sqm	0.66 2.56	6528.70 386.55	4308.94 A 989.57 A 5298.51 8686.08 8686.10
	FOR DPA 30% LESS				**6080.27**

19.10 Constructing brick masonry circular manhole 1.52 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :

19.10.1 2.30 m deep with SFRC Cover and frame (heavy duty HD- 20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :

19.10.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
4.1.6	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) 2.74x2.74x0.30 m = 2.25 cum Rate as per item no 4.1.6 of SH : Concrete Work	cum	2.25	6670.25	15008.06 A
6.1.1	Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.98x0.25x0.46 = 0.716 cum 3.14x(1.98+0.905)/2x0.345x1.93 = 3.019 cum Total = 3.735 cum Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.46x0.10 m = 0.036 cum $2x3.14/4x(0.15)^2x0.460$ = 0.016 cum Total= 0.052 cum Net quantity 3.735-0.052 = 3.683 cum Say 3.68 cum Rate as per item no 6.1.1 of SH : Brick Work	cum	3.68	6882.00	25325.76 A
6.9	Brick work in arches with 7.5 class designation brick in cement mortar 1:3 (1 cement : 3 coarse sand) 2x1/2x3.14x0.25 m x0.460x0.10 m = 0.036 cum Say 0.04 cum Rate as per item no 6.9 of SH : Brick Work	cum	0.04	13378.10	535.12 A
	Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone				

	aggregate 20 mm nominal size) For benching : 3.14/4x(1.52)^{2}x0.20 = 0.363 cum [(2x8.133)/360]x(4/3)x3.14x(0.76)^3 =0.083 cum Total= 0.446 cum Less pipe :1.52x3.14/4x(0.15)^2(-) = 0.027 cum Total= 0.419 cum Say 0.42 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : concrete	cum	0.42	7365.15	3093.36 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For fixing cover : 3.14/4 x d^2 x thickness 3.14/4x(1.020)^{2}x0.15 m =0.123 cum Less cover 3.14/4x(0.28)^2 x 0.15 m : = (-) 0.037 cum Total= 0.086 cum Say 0.09 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete	cum	0.09	9375.20	843.77 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(1.454+0.56)/2x1.799 = 5.694 sqm 3.14x0.56x0.075 = 0.13 sqm Benching 3.14x(1.454)^2/4-1.454x0.15+1.454x1/2x 3.14x0.15 =1.786 sqm Total= 7.61 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	7.61	386.55	2941.65 A
	LABOUR				
	Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.10	784.00	78.40
0124	Mason (brick layer) 2nd class	day	0.10	714.00	71.40
	S.F.R.C cover				
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	880.00	880.00
9977	CARRIAGE	L.S.	6.89	2.12	14.61
9999	Sundries	L.S.	16.90	2.12	35.83
	TOTAL				48827.96 W
	Add 1 % Water charges on "W-A"				10.80
	TOTAL				48838.76 X
	Add GST on "X-A" (multiplying factor 0.1405)				153.29
	TOTAL				48992.05 Y
	Add 15% CPOH on "Y-A"				186.65
	TOTAL				49178.70 Z
	Add Cess @ 1% on "Z-A"				14.31
	Cost of one manhole				49193.01
	Say				49193.00
	FOR DPA 30% LESS				**34435.1**

19.10.1.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) 2.74x2.74x0.30 m = 2.25 cum Rate as per item no 4.1.6 of SH : Concrete Work Brick work with bricks modular extruded brunt fly ash clay sewer bricks in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.98x0.25x0.46 = 0.716 cum 3.14x(1.98+0.905)/2x0.345x1.93 = 3.019 cum Total= 3.735 cum Duduct arch ring and portion of pipe				
4.1.6	2x½x3.14x0.25mx0.46x0.10 m	cum	2.25	6670.25	15008.06 A
6.36.1	= 0.036 cum	cum	3.68	6528.70	24025.62 A
6.37	2x3.14/4x$(0.15)^2$x0.460 = 0.016 cum	cum	0.04	11763.25	470.53 A
	Total= 0.052 cum Net quantity 3.735-0.052 = 3.683 cum Say 3.68 cum Rate as per item No 6.36.1 of SH : Brick Work Brick work in arches with modular extruded brunt fly ash clay sewer bricks in cement mortar 1:3 (1 cement : 3 fine sand) 2x1/2x3.14x0.25 m x0.460x0.10 m = 0.036 cum Say 0.04 cum Rate as per item No 6.37 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)				
	For benching : 3.14/4x$(1.52)^2$x0.20 = 0.363 cum [(2x8.133)/360]x(4/3)x3.14x$(0.76)^3$ =0.083 cum Total= 0.446 cum Less pipe :1.52x3.14/4x$(0.15)^2$(-) = 0.027 cum = 0.419 cum Say 0.42 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : concrete	cum	0.42	7365.15	3093.36 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For fixing cover : 3.14/4 x d^2 x thickness 3.14/4x$(1.020)^2$x0.15 m =0.123 cum Less cover 3.14/4x$(0.28)^2$ x 0.15 m : = (-) 0.037 cum Net Quantity= 0.086 cum Say 0.09 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete	cum	0.09	9375.20	843.77 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(1.454+0.56)/2x1.799 = 5.694 sqm 3.14x0.56x0.075 = 0.13 sqm Benching 3.14x$(1.454)^2$/4-1.454x0.15+1.454x1/2x 3.14x0.15 =1.786 sqm Total= 7.61 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	7.61	386.55	2941.65 A
	LABOUR Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.10	784.00	78.40
0124	Mason (brick layer) 2nd class	day	0.10	714.00	71.40

7135	S.F.R.C cover Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	880.00	880.00
9977	CARRIAGE	L.S.	6.89	2.12	14.61
9999	Sundries	L.S.	16.90	2.12	35.83
	TOTAL				47463.22 W
	Add 1 % Water charges on "W-A"				10.80
	TOTAL				47474.02 X
	Add GST on "X-A" (multiplying factor 0.1405)				153.29
	TOTAL				47627.31 Y
	Add 15% CPOH on "Y-A"				186.65
	TOTAL				47813.96 Z
	Add Cess @ 1% on "Z-A"				14.31
	Cost of one manhole				47828.27
	Say				47828.25
	FOR DPA 30% LESS				**33479.775**

19.11 Extra depth for circular type manhole 1.52 m internal dia (at bottom) beyond 2.30 m :

19.11.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
6.1.1 13.9.1	Detail of cost of 1.88 m extra depth Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement: 4 coarse sand) Rate as per item no 6.1.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement Rate as per item no 13.9.1 of SH : Finishing Cost for 1.88 metre Cost for 1.00 metre Say	cum sqm	5.26 8.99	6882.00 386.55	36199.32 A 3475.08 A 39674.40 21103.41 21103.40
	FOR DPA 30% LESS				**14772.38**

19.11.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate	Amount
6.36.1 13.9.1	Detail of cost of 1.88 m extra depth Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement: 4 coarse sand) Rate as per item No 6.36.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement Rate as per item no 13.9.1 of SH : Finishing Cost for 1.88 metre Cost for 1.00 metre Say	cum sqm	5.26 8.99	6528.70 386.55	34340.96 A 3475.08 A 37816.05 20114.92 20114.90
	FOR DPA 30% LESS				**14080.43**

19.12 Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :

19.12.1 With 20x20 mm square bar

Code	Description	Unit	Quantity	Rate	Amount
1006 9988 0103 0114	Details of cost for one M.S foot rests MATERIAL M.S. 20 mm square bar 0.75 m @ 3.137 kg/m = 0.024 Mild steel square bars Carriage, painting, and other sundries LABOUR for fabrication Blacksmith 2nd class Beldar	quintal L.S. day day	0.024 1.82 0.10 0.10	4850.00 2.12 714.00 645.00	116.40 3.86 71.40 64.50
4.2.5	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate : 20 mm nominal size) 0.20x0.20x0.10 m = 0.004 cum Rate as per item no 4.2.5 of SH : Concrete work	cum	0.004	8843.45	35.37 A
	LABOUR for fixing M.S. foot rests				
0123	Mason (brick layer) 1st class	day	0.02	784.00	15.68

0124	Mason (brick layer) 2nd class	day	0.02	714.00	14.28
0114	Beldar	day	0.05	645.00	32.25
	TOTAL				353.74 W
	Add 1 % Water charges on "W-A"				3.18
	TOTAL				356.93 X
	Add GST on "X-A" (multiplying factor 0.1405)				45.18
	TOTAL				402.10 Y
	Add 15% CPOH on "Y-A"				55.01
	TOTAL				457.11 Z
	Add Cess @ 1% on "Z-A"				4.22
	Cost for 1 no.				461.33
	Say				461.35
	FOR DPA 30% LESS				**322.945**

19.12.2 With 20 mm diameter round bar

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one M.S foot rests				
	MATERIAL				
	M.S. round brass20 mm dia 0.75 m @ 2.47kg/m = 0.018 q				
1003	Mild steel round bar above 12 mm dia	quintal	0.018	4750.00	85.50
9988	Carriage,painting, and other sundries	L.S.	1.82	2.12	3.86
	Labour for fabrication				
0103	Blacksmith 2nd class	day	0.10	714.00	71.40
0114	Beldar	day	0.10	645.00	64.50
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate : 20 mm nominal size)				
	0.20x0.20x0.10 m = 0.004 cum				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.004	8843.45	35.37 A
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.02	784.00	15.68
0124	Mason (brick layer) 2nd class	day	0.02	714.00	14.28
0114	Beldar	day	0.05	645.00	32.25
	TOTAL				322.84 W
	Add 1 % Water charges on "W-A"				2.87
	TOTAL				325.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				40.79
	TOTAL				366.51 Y
	Add 15% CPOH on "Y-A"				49.67
	TOTAL				416.18 Z
	Add Cess @ 1% on "Z-A"				3.81
	Cost for 1 no.				419.99
	Say				420.00
	FOR DPA 30% LESS				**294**

19.13 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS: 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				

7354	Plastic encapsuled M.S. foot rest 30x20x15 cm	each	1.00	110.00	110.00
9988	Carriage and other sundries	L.S.	1.82	2.12	3.86
	Cement concrete 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) (0.30x0.20x0.15 = 0.009 cum)				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.009	8843.45	79.59 A
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.02	784.00	15.68
0124	Mason (brick layer) 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.05	645.00	32.25
	TOTAL				384.18 W
	Add 1 % Water charges on "W-A"				3.05
	TOTAL				387.23 X
	Add GST on "X-A" (multiplying factor 0.1405)				43.22
	TOTAL				430.45 Y
	Add 15% CPOH on "Y-A"				52.63
	TOTAL				483.08 Z
	Add Cess @ 1% on "Z-A"				4.03
	Cost for 1 no.				487.11
	Say				487.10
	FOR DPA 30% LESS				**340.97**

19.12 Replacement of M.S. foot rests in manholes including dismantling concrete blocks and fixing with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size):

19.12.1 With 20x20 mm square bar

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one M.S foot rests				
	MATERIAL				
	M.S. 20 mm square bar 0.75 m @ 3.137 kg/m =0.024 q				
1006	Mild steel square bars	quintal	0.024	4850.00	116.40
9988	Carriage,painting, and other sundries	L.S.	1.82	2.12	3.86
	Labour for fabrication				
0103	Blacksmith 2nd class	day	0.10	714.00	71.40
0114	Beldar	day	0.10	645.00	64.50
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) 0.20x0.20x0.10 m = 0.004 cum				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.004	8843.45	35.37 A
	LABOUR				
	for dismantling old forts rest cutting holes and fixing new M.S. foot rests				
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0114	Beldar	day	0.1	645.00	64.50
	TOTAL				430.93 W
	Add 1 % Water charges on "W-A"				3.96
	TOTAL				434.89 X
	Add GST on "X-A" (multiplying factor 0.1405)				56.13
	TOTAL				491.02 Y
	Add 15% CPOH on "Y-A"				68.35
	TOTAL				559.37 Z
	Add Cess @ 1% on "Z-A"				5.24

	Cost for 1 no.				564.61
	Say				564.60
	FOR DPA 30% LESS				**395.22**

19.12.2 With 20 mm diameter round bar

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one M.S foot rests				
	MATERIAL				
	M.S. roumd bars 20 mm dia 0.75 m @				
	2.47 kg/m =0.018 q				
1003	Mild steel round bar above 12 mm dia	quintal	0.018	4750.00	85.50
9988	Carriage,painting, and other sundries	L.S.	1.82	2.12	3.86
	Labour for fabrication				
0103	Blacksmith 2nd class	day	0.10	714.00	71.40
0114	Beldar	day	0.10	645.00	64.50
	Cement concrete 1:3:6 (1 cement :				
	3 coarse sand : 6 graded stone				
	aggregate 20 mm nominal size)				
	0.20x0.20x0.10 m = 0.004 cum				
4.2.5	Rate as per item no 4.2.5 of				
	SH : Concrete work	cum	0.004	8843.45	35.37 A
	LABOUR				
	for dismantling old forts rest cutting				
	holes and fixing new M.S. foot rests				
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0114	Beldar	day	0.10	645.00	64.50
	TOTAL				400.03 W
	Add 1 % Water charges on "W-A"				3.65
	TOTAL				403.68 X
	Add GST on "X-A" (multiplying factor 0.1405)				51.75
	TOTAL				455.43 Y
	Add 15% CPOH on "Y-A"				63.01
	TOTAL				518.43 Z
	Add Cess @ 1% on "Z-A"				4.83
	Cost for 1 no.				523.26
	Say				523.25
	FOR DPA 30% LESS				**366.275**

19.15 Supplying and fixing C.I. cover without frame for manholes :

19.15.1 455x610 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23 kg

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one cover				
	MATERIAL				
1355	Rectangular cover 455x610mm without				
	frame (low duty)	each	1.00	910.00	910.00
9977	Carriage of C.I. Manhole cover	L.S.	7.15	2.12	15.16
	LABOUR				
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				1002.56 W
	Add 1 % Water charges on "W"				10.03
	TOTAL				1012.58 X
	Add GST on "X" (multiplying factor 0.1405)				142.27
	TOTAL				1154.85 Y
	Add 15% CPOH on "Y"				173.23
	TOTAL				1328.08 Z
	Add Cess @ 1% on "Z"				13.28
	Cost for 1 cover				1341.36

	Say				1341.35
	FOR DPA 30% LESS				**938.945**

19.15.2 500 mm diameter C.I. cover (medium duty) the weight of the cover to be not less than 58 kg

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one cover MATERIAL				
1357	500 mm dia cover without frame (medium duty)	each	1.00	2300.00	2300.00
9977	Carriage of C.I. cover	L.S.	13.47	2.12	28.56
	LABOUR				
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				2405.96 W
	Add 1 % Water charges on "W"				24.06
	TOTAL				2430.02 X
	Add GST on "X" (multiplying factor 0.1405)				341.42
	TOTAL				2771.43 Y
	Add 15% CPOH on "Y"				415.71
	TOTAL				3187.15 Z
	Add Cess @ 1% on "Z"				31.87
	Cost for 1 no.				3219.02
	Say				3219.00
	FOR DPA 30% LESS				**2253.3**

19.15.3 560 mm diameter C.I. cover (heavy duty) the weight of the cover to be not less than 108 kg

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one cover				
	MATERIAL				
3861	560 mm dia cover without frame (Heavy duty)	each	1.00	5100.00	5100.00
9977	Carriage of C.I. cover	L.S.	16.12	2.12	34.17
	LABOUR				
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				5211.57 W
	Add 1 % Water charges on "W"				52.12
	TOTAL				5263.69 X
	Add GST on "X" (multiplying factor 0.1405)				739.55
	TOTAL				6003.24 Y
	Add 15% CPOH on "Y"				900.49
	TOTAL				6903.72 Z
	Add Cess @ 1% on "Z"				69.04
	Cost for 1 no.				6972.76
	Say				6972.75
	FOR DPA 30% LESS				**4880.925**

19.16 Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality

19.16.1 L D- 2.5

19.16.1.1 Rectangular shape 600x450 mm internal dimensions

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
7130	Rectangular shape 600x450 mm precast R.C.C. manhole cover with frame - L.D. - 2.5	each	1.00	675.00	675.00
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)				
	1.00x0.85x0.15 = 0.1275 cum				
	Less cover with frame 0.85x0.70x0.15 = (-) 0.0893 cum				
	= 0.0382 cum Say 0.04 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.04	7365.15	294.61 A
9977	Carriage of R.C.C cover with frame	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	13.52	2.12	28.66

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				1012.60 W
	Add 1 % Water charges on "W-A"				7.18
	TOTAL				1019.78 X
	Add GST on "X-A" (multiplying factor 0.1405)				101.89
	TOTAL				1121.67 Y
	Add 15% CPOH on "Y-A"				124.06
	TOTAL				1245.73 Z
	Add Cess @ 1% on "Z-A"				9.51
	Cost for 1 no.				1255.24
	Say				1255.25
	FOR DPA 30% LESS				**878.675**

19.16.1.2 Square shape 450 mm internal dimensions

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7131	Square shape 450x450 mm precast R.C.C. manhole cover with frame - L.D. - 2.5	each	1.00	575.00	575.00
9977	Carriage of manhole cover	L.S.	6.76	2.12	14.33
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)				
	0.725x0.725x0.15 = 0.0788 cum				
	Less cover with frame				
	0.575x0.575x0.15 = (-) 0.0496 cum				
	= 0.0292 cum Say 0.03 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7365.15	220.95 A
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				838.95 W
	Add 1 % Water charges on "W-A"				6.18
	TOTAL				845.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				87.70
	TOTAL				932.82 Y
	Add 15% CPOH on "Y-A"				106.78
	TOTAL				1039.60 Z
	Add Cess @ 1% on "Z-A"				8.19
	Cost for 1 no.				1047.79
	Say				1047.80
	FOR DPA 30% LESS				**733.46**

19.16.1.3 Circular shape 450 mm internal diameter

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7132	Circular shape 450 mm dia precast R.C.C. manhole cover with frame - L.D. - 2.5	each	1.00	575.00	575.00
9977	Carriage of manhole cover	L.S.	6.76	2.12	14.33
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)				
	$3.14/4x(0.775)^2x0.15$ = 0.0708 cum				
	Less cover with frame				
	$3.14/4x(0.625)^2x0.15$ = (-) 0.0460 cum				
	= 0.0248 cum Say 0.03 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7365.15	220.95 A

9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				838.95 W
	Add 1 % Water charges on "W-A"				6.18
	TOTAL				845.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				87.70
	TOTAL				932.82 Y
	Add 15% CPOH on "Y-A"				106.78
	TOTAL				1039.60 Z
	Add Cess @ 1% on "Z-A"				8.19
	Cost for 1 no.				1047.79
	Say				1047.80
	FOR DPA 30% LESS				**733.46**

19.16.2 M D - 10

19.16.2.1 Square shape 450 mm internal dimension

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no. MATERIAL				
7133	Rectangular shape 500x500 mm precast R.C.C. manhole cover with frame - M.D. - 10	each	1.00	670.00	670.00
9977	Carriage of manhole cover	L.S.	6.76	2.12	14.33
4.1.3	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) 0.95x0.95x0.15 = 0.1354 cum Less cover with frame 0.80x0.80x0.15 = (-) 0.096 cum = 0.0394 cum Say 0.04 cum Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.04	7365.15	294.61 A
9999	Sundries	L.S.	16.64	2.12	35.28
	TOTAL				1014.21 W
	Add 1 % Water charges on "W-A"				7.20
	TOTAL				1021.41 X
	Add GST on "X-A" (multiplying factor 0.1405)				102.12
	TOTAL				1123.53 Y
	Add 15% CPOH on "Y-A"				124.34
	TOTAL				1247.86 Z
	Add Cess @ 1% on "Z-A"				9.53
	Cost for 1 no.				1257.40
	Say				1257.40
	FOR DPA 30% LESS				**880.18**

19.16.2.2 Circular shape 500 mm internal diameter

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7134	Circular shape 500 mm dia precast R.C.C. manhole cover with frame - M.D. - 10	each	1.00	575.00	575.00
9977	Carriage of manhole cover	L.S.	6.76	2.12	14.33
4.1.3	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) $3.14/4x(0.95)^2x0.15$ = 0.1064 cum Less cover with frame $3.14/4x(0.8)^2x0.15$ = (-) 0.0754 cum = 0.031 cum Say 0.03 cum Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7365.15	220.95 A
9999	Sundries	L.S.	16.64	2.12	35.28
	TOTAL				845.56 W
	Add 1 % Water charges on "W-A"				6.25

	TOTAL				851.81 X
	Add GST on "X-A" (multiplying factor 0.1405)				88.63
	TOTAL				940.44 Y
	Add 15% CPOH on "Y-A"				107.92
	TOTAL				1048.37 Z
	Add Cess @ 1% on "Z-A"				8.27
	Cost for 1 no.				1056.64
	Say				1056.65
	FOR DPA 30% LESS				**739.655**

19.16.3 H D - 20

19.16.3.1 Circular shape 560 mm internal diameter

Code	Description	Unit	Quantity	Rate	Amount
7135	Details of cost for one no. MATERIAL Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	880.00	880.00
9977	Carriage of manhole cover	L.S.	13.52	2.12	28.66
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)				
	$3.14/4x(1.05)^2x0.15$ = 0.1299 cum				
	Less cover with frame				
	$3.14/4x(0.9)^2x0.15$ = (-) 0.0955 cum				
	= 0.0344 cum Say 0.03 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7365.15	220.95 A
9999	Sundries	L.S.	20.28	2.12	42.99
	TOTAL				1172.61 W
	Add 1 % Water charges on "W-A"				9.52
	TOTAL				1182.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				135.04
	TOTAL				1317.17 Y
	Add 15% CPOH on "Y-A"				164.43
	TOTAL				1481.60 Z
	Add Cess @ 1% on "Z-A"				12.61
	Cost for 1 no.				1494.21
	Say				1494.20
	FOR DPA 30% LESS				**1045.94**

19.16.4 EHD - 35

19.16.4.1 Circular shape 560 mm internal dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one no.				
	MATERIAL				
7136	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - E.H.D. - 35	each	1.00	1170.00	1170.00
9977	Carriage of manhole cover	L.S.	13.52	2.12	28.66
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)				
	$3.14/4x(1.05)^2x0.15$ = 0.1299 cum				
	Less cover with frame				
	$3.14/4x(0.9)^2x0.15$ = (-) 0.0955 cum				
	= 0.0344 cum Say 0.03 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7365.15	220.95 A
9999	Sundries	L.S.	20.28	2.12	42.99

	TOTAL				1462.61 W
	Add 1 % Water charges on "W-A"				12.42
	TOTAL				1475.03 X
	Add GST on "X-A" (multiplying factor 0.1405)				176.20
	TOTAL				1651.22 Y
	Add 15% CPOH on "Y-A"				214.54
	TOTAL				1865.76 Z
	Add Cess @ 1% on "Z-A"				16.45
	Cost for 1 no.				1882.21
	Say				1882.20
	FOR DPA 30% LESS				**1317.54**

19.17 Supplying and fixing C.I. cover 300x300 mm without frame for gully trap (standard pattern) the weight of cover to be not less than 4.5 kg

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one cover				
	MATERIAL				
1353	C.I.cover without frame 300x300mm inside i.e.cover of 4.50 kg	each	1.00	477.00	477.00
9988	Carriage for cover	L.S.	2.70	2.12	5.72
	LABOUR				
0114	Beldar	day	0.03	645.00	19.35
	TOTAL				502.07 W
	Add 1 % Water charges on "W"				5.02
	TOTAL				507.09 X
	Add GST on "X" (multiplying factor 0.1405)				71.25
	TOTAL				578.34 Y
	Add 15% CPOH on "Y"				86.75
	TOTAL				665.09 Z
	Add Cess @ 1% on "Z"				6.65
	Cost for 1 cover				671.74
	Say				671.75
	FOR DPA 30% LESS				**470.225**

19.18 Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :

19.18.1 For pipes 100 to 250 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
4.1.3 13.9.1 0123 0124	Details of cost for one connection MATERIAL cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) = 0.30x0.30x0.23 m = 0.0207 cum Less pipe = 1/2x3.14x0.23x0.23x0.23 = 0.0096 cum = 0.0111 cum Say 0.01 cum Rate as per item no. 4.1.3 of SH : Concrete 12 mm cement plater 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement 2x0.35x0.35 =0.25sqm Rate as per item no 13.9.1 of SH : Finishing LABOUR (For cutting holes average size 30x30 cm in 23 cm thick wall and making channel etc.) Mason (brick layer) 1st class Mason (brick layer) 2nd class	cum sqm day day	0.01 0.25 0.12 0.12	7365.15 386.55 784.00 714.00	73.65 A 96.64 A 94.08 85.68
0114	Beldar	day	0.25	645.00	161.25
9999	Add for delay sundries etc.	L.S.	20.15	2.12	42.72
	TOTAL				554.02 W

	Add 1 % Water charges on "W-A"				3.84
	TOTAL				557.85 X
	Add GST on "X-A" (multiplying factor 0.1405)				54.45
	TOTAL				612.31 Y
	Add 15% CPOH on "Y-A"				66.30
	TOTAL				678.61 Z
	Add Cess @ 1% on "Z-A"				5.08
	Cost for 1 connection				683.69
	Say				683.70
	FOR DPA 30% LESS				**478.59**

19.18.2 For pipes 250 to 300 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one connection				
	MATERIAL				
	Cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)				
	= 0.35x0.35x0.30 m = 0.037 cum				
	Less pipe = 1/2x3.14x0.30x0.30x 0.30 = 0.021 cum				
	= 0.016 cum Say 0.02 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.02	7365.15	147.30 A
	12 mm cement plater 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement				
	2x0.40x0.40 =0.32 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.32	386.55	123.70 A
	LABOUR				
	(For cutting holes average size 30x 30 cm in 23 cm thick wall and making channel etc.)				
0123	Mason (brick layer) 1st class	day	0.12	784.00	94.08
0124	Mason (brick layer) 2nd class	day	0.12	714.00	85.68
0114	Beldar	day	0.25	645.00	161.25
9999	Add for delay sundries etc.	L.S.	20.67	2.12	43.82
	TOTAL				655.83 W
	Add 1 % Water charges on "W-A"				3.85
	TOTAL				659.68 X
	Add GST on "X-A" (multiplying factor 0.1405)				54.61
	TOTAL				714.29 Y
	Add 15% CPOH on "Y-A"				66.49
	TOTAL				780.78 Z
	Add Cess @ 1% on "Z-A"				5.10
	Cost for 1 connection				785.88
	Say				785.90
	FOR DPA 30% LESS				**550.13**

19.18.3 For pipes 350 to 450 mm diameter

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one connection				
	MATERIAL				
	Cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)				
	= 0.50x0.50x0.30 m = 0.075 cum				
	Less pipe = 1/2x3.14x0.45x0.45x				

	0.30 = 0.048 cum				
	= 0.027 cum Say 0.03 cum				
4.1.3	Rate as per item no. 4.1.3 of				
	SH : Concrete Work	cum	0.03	7365.15	220.95 A
	12 mm cement plater 1:3 (1 cement :				
	3 coarse sand) finished with a floating				
	coat of neat cement				
	2x0.55x0.55 =0.605 sqm Say 0.60 sqm				
13.9.1	Rate as per item no 13.9.1 of				
	SH : Finishing	sqm	0.60	386.55	231.93 A
	LABOUR				
	(For cutting holes average size				
	30x30 cm in 23 cm thick wall and				
	making channel etc.)				
0123	Mason (brick layer) 1st class	day	0.16	784.00	125.44
0124	Mason (brick layer) 2nd class	day	0.16	714.00	114.24
0114	Beldar	day	0.33	645.00	212.85
9999	Add for delay sundries etc.	L.S.	26.91	2.12	57.05
	TOTAL				962.46 W
	Add 1 % Water charges on "W-A"				5.10
	TOTAL				967.56 X
	Add GST on "X-A" (multiplying factor 0.1405)				72.31
	TOTAL				1039.87 Y
	Add 15% CPOH on "Y-A"				88.05
	TOTAL				1127.92 Z
	Add Cess @ 1% on "Z-A"				6.75
	Cost for 1 connection				1134.67
	Say				1134.65
	FOR DPA 30% LESS				**794.255**

19.19 Providing sand cast iron drop connection externally for 60 cm drop from branch sewer line to main sewer manhole including inspection and cleaning eye with chain and lid, sand cast iron drop pipe and bend encased all-round with cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) with all centering and shuttering required, cutting holes in walls and making good with brick work in cement mortar 1:4 (1 cement : 4 coarse sand) plastered with cement mortar 1:3 (1 cement : 3 coarse sand) on inside of the manhole wall, lead caulked joints between sand cast iron pipes and fittings, stiff cement mortar 1:1 (1 cement : 1 fine sand) joints between sand cast iron tee and S.W. pipe, making required channels complete as per standard design

19.19.1 100 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one drop connection				
	MATERIAL				
1617	S.C.I. soil, waste and vent single				
	socketed pipe 1.80 metres long:				
	100mm dia	each	0.55556	1135.00	630.56
	= 38+30+33 =101 cm say 1 metre				
	Length of pipe = 1m. Hence, Qty				
	= 1 /1.8 =0.55556 Nos				
9977	Carriage of pipe	L.S.	1.43	2.12	3.03
	Cutting charges				
18.83.2	Rate as per item no 18.83.2 of				
	SH: Water supply	each cut	3.00	160.70	482.10 A
1336	Clearing eye with chain and lid				
	100 mm dia	each	1.00	44.00	44.00
1621	S.C.I. plain bend 100 mm dia	each	1.00	280.00	280.00
1628	S.C.I. plain single equal junctions				
	100x100x100 mm dia	each	1.00	405.00	405.00
	Brick work in cement mortar				
	1:4 (1 cement : 4 coarse sand)				

	0.20x0.20x0.23 = 0.009 cum Less pipe 1/2x3.14x0.10x0.10x0.23 = 0.002 cum Net Qty= 0.009 - 0.002 = 0.007 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.007	6882.00	48.17 A
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.40x0.45x1.05 m = 0.189 cum 0.40x0.25x0.40 = 0.040 cum Total= 0.229 cum Less pipe portion 1/2x3.14x0.10x0.10x1.50 = 0.012 cum Toothing portion 2x0.40x0.05x0.10 m = 0.004 cum = 0.016 cum Net Qty= 0.229-0.016 = 0.213 cum Say 0.21 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.21	5660.45	1188.69 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 1x0.25x0.25 m = 0.0625 Say 0.06 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.06	386.55	23.19 A
	Providing lead caulked joints to 100 mm diameter pipe and special				
12.39.1	Rate as per item no. 12.39.1 of SH : Roofing	each	4.00	444.05	1776.20 A
9999	Providing joint to S.W. pipe with cement mortar 1:1 (1 cement : 1 fine sand)	L.S.	26.91	2.12	57.05
	Form work 1.30x1.05 m = 1.36 sqm				
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.36	669.55	910.59 A
9988	Sundries including carriage of bends etc.	L.S.	26.91	2.12	57.05
	LABOUR For cutting holes 5 cm deep in alternate course of brick work benching and channel				
0123	Mason (brick layer) 1st class	day	0.70	784.00	548.80
0124	Mason (brick layer) 2nd class	day	0.70	714.00	499.80
0114	Beldar	day	2.70	645.00	1741.50
	TOTAL				8695.74 W
	Add 1 % Water charges on "W-A"				42.67
	TOTAL				8738.41 X
	Add GST on "X-A" (multiplying factor 0.1405)				605.48
	TOTAL				9343.89 Y
	Add 15% CPOH on "Y-A"				737.24
	TOTAL				10081.13 Z
	Add Cess @ 1% on "Z-A"				56.52
	Cost of one drop connection				10137.65
	Say				10137.65
	FOR DPA 30% LESS				**7096.355**

19.19.2 150 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate	Amount

1618	Details of cost for one drop connection MATERIAL S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 150mm dia = 34.5+30+37 =101.5cm say 1.00m Length of pipe = 1m. Hence, Qty = 1 / 1.8 =0.55556 No.s Carriage of pipe Cutting charges Rate as per item no 18.83.4 of SH Water Supply Clearing eye with chain and lid 150 mm dia S.C.I. plain bend 150 mm dia S.C.I. Tee 150 mm Brick work in cement mortar 1:4 (1 cement : 4 coarse sand) 0.20x0.20x0.23 = 0.009 cum Less pipe 1/2x3.14x0.15x0.15x0.23 = 0.004 cum Net Qty= 0.005 cum				
		each	0.55556	1750.00	972.23
9977		L.S.	1.82	2.12	3.86
18.83.4					
		each cut	3.00	301.90	905.70 A
1337					
1622		each	1.00	50.00	50.00
7087		each each	1.00	475.00	475.00
			1.00	570.00	570.00
6.1.1	Rate as per item no 6.1.1 of				
	SH : Brick Work	cum	0.005	6882.00	34.41 A
	Cement concrete 1:5:10 (1 cement :				
	5 fine sand : 10 graded stone				
	aggregate 40 mm nominal size)				
	0.45x0.50x1.15 m = 0.259 cum				
	0.45x0.25x0.45 = 0.0510 cum				
	= 0.310 cum				
	Less pipe portion				
	1/4x3.14x0.15x0.15x1.50 = 0.027 cum				
	Toothing portion				
	3x0.45x0.05x0.10 m = 0.004 cum				
	= 0.027 + 0.004 = 0.031 cum				
	Net Qty 0.310-0.031 = 0.279 cum.				
	Say 0.28 cum				
4.1.11	Rate as per item no 4.1.11 of				
	SH : Concrete	cum	0.28	5660.45	1584.93 A
	12 mm cement plaster 1:3 (1 cement :				
	3 coarse sand) finished with floating				
	coat of neat cement				
	1x0.25x0.25 m = 0.0625 Say 0.06 sqm				
13.9.1	Rate as per item no 13.9.1 of				
	SH : Finishing	sqm	0.06	386.55	23.19 A
	Providing lead caulked joints to 150 mm				
	diameter pipe and special				
12.39.2	Rate as per item no. 12.39.2 of				
	SH : Roofing	each	4.00	604.65	2418.60 A
9999	Providing joint to S.W. pipe with				
	cement mortar 1:1 (1 cement : 1 fine				
	sand)	L.S.	39.91	2.12	84.61
	Form work				
	1.450x1.15 m = 1.67 sqm				
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.67	669.55	1118.15 A
9988	Sundries including carriage of bends etc.	L.S.	34.06	2.12	72.21
	LABOUR				
	For cutting holes 45 holes 5 cm deep				
	toothing in alternate course of brick				
	work benching and making channel				

0123	Mason (brick layer) 1st class	day	0.85	784.00	666.40
0124	Mason (brick layer) 2nd class	day	0.85	714.00	606.90
0114	Beldar	day	3.50	645.00	2257.50
	TOTAL				11843.68 W
	Add 1 % Water charges on "W-A"				57.59
	TOTAL				11901.27 X
	Add GST on "X-A" (multiplying factor 0.1405)				817.19
	TOTAL				12718.46 Y
	Add 15% CPOH on "Y-A"				995.02
	TOTAL				13713.48 Z
	Add Cess @ 1% on "Z-A"				76.29
	Cost of one drop connection				13789.77
	Say				13789.75
	FOR DPA 30% LESS				**9652.825**

19.20 Extra for depths beyond 60 cm of sand cast iron drop connection complete:
19.20.1 For 100 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one metre				
	MATERIAL				
1617	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100mm dia	each	0.55556	1135.00	630.56
	Length of pipe = 1m. Hence, Qty = 1 / 1.8 = 0.55556 Nos.				
9977	Carriage of material and fixing charges	L.S.	13.39	2.12	28.39
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)				
	0.40x0.45x1.00 mm = 0.18 cum				
	Less pipe portion				
	1/2x3.14x0.10x0.10x1.00 = 0.008 cum				
	Toothing portion				
	5x0.40x0.05x0.10 m = 0.010 cum				
	Total= 0.018 cum				
	Net Qty= 0.18-0.018 = 0.162 cum Say 0.16 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.16	5660.45	905.67 A
	Form work				
	1.30x1.00 m = 1.30 sqm				
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.30	669.55	870.42 A
9999	Sundries	L.S.	7.15	2.12	15.16
	LABOUR				
	For cutting holes 5 cm deep in alternate course of brick work				
0123	Mason (brick layer) 1st class	day	0.04	784.00	31.36
0124	Mason (brick layer) 2nd class	day	0.04	714.00	28.56
0114	Beldar	day	0.04	645.00	25.80
	TOTAL				2535.91 W
	Add 1 % Water charges on "W-A"				7.60
	TOTAL				2543.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				107.82
	TOTAL				2651.33 Y
	Add 15% CPOH on "Y-A"				131.29
	TOTAL				2782.62 Z
	Add Cess @ 1% on "Z-A"				10.07
	Cost of one metre				2792.69

	Say				2792.70
	FOR DPA 30% LESS				**1954.89**

19.20.2 For 150 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one metre MATERIAL				
1618	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 150mm dia	each	0.55556	1750.00	972.23
	Length of pipe = 1m. Hence, Qty = 1 / 1.8 = 0.55556 Nos.				
9977	Carriage of material and fixing charges	L.S.	13.39	2.12	28.39
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)				
	0.45x0.50x1.00 mm = 0.225 cum				
	Less pipe portion				
	1/2x3.14x0.15x0.15x1.00 = 0.018 cum				
	Toothing portion				
	5x0.45x0.05x0.10 m = 0.011 cum				
	Total = 0.029 cum				
	Net 0.225-0.029 = 0.196 cum				
	Say 0.20 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.20	5660.45	1132.09 A
	Form work				
	1.45x1.00 m = 1.45 sqm				
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.45	669.55	970.85 A
9999	Sundries	L.S.	8.09	2.12	17.15
	LABOUR				
	For cutting 5 cm deep in alternate course of brick work				
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0114	Beldar	day	0.05	645.00	32.25
	TOTAL				3227.86 W
	Add 1 % Water charges on "W-A"				11.25
	TOTAL				3239.10 X
	Add GST on "X-A" (multiplying factor 0.1405)				159.63
	TOTAL				3398.74 Y
	Add 15% CPOH on "Y-A"				194.37
	TOTAL				3593.11 Z
	Add Cess @ 1% on "Z-A"				14.90
	Cost of one metre				3608.01
	Say				3608.00
	FOR DPA 30% LESS				**2525.6**

19.21 Dismantling of manhole including R.C.C. top slab, C.I. cover with frame, including stacking of useful materials near the site and disposal of unserviceable materials within 50 m lead as per direction of Engineer-in-charge:

19.21.1 Rectangular manhole 90x80 cm and 45 cm deep

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of a manhole 90x80 cm and 45 cm deep				
	Dismantling of cement concrete 1:4:8 (1 cement : 4 coarse sand 8 : aggregate stone 40 mm nominal size)				
	1.51x1.41x0.20 m = 0.426 cum				
	Say 0.43 cum				
15.2.2	Rate as per item no. 15.2.2 of SH : Dismantling and demolishing	cum	0.43	1239.60	533.03 A
	Dismantling of secon class brick work				

	in cement mortar 1:4 (1 cement : 4 coarse sand) 4.32x0.23x0.35 m = 0.348 cum Less for pipe 2x3.14x(0.15m)² x0.23m = (-) 0.008 cum Net Qty 0.348 - 0.008 = 0.340 cum				
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing	cum	0.34	1698.45	577.47 A
	Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching 2x0.90x(0.80/2) x (0.30+0.20)/2 = 0.18 cum Less for pipe 1x0.90x3.14/4x(0.15m)² = (-) 0.02 cum Net qty= 0.16 cum				
15.2.1	Rate as per item no. 15.2.1 of SH : Dismantling and demolishing	cum	0.16	2007.10	321.14 A
	Dismantling of R.C.C slab of 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) For slab : 1.36x1.26x0.15m = 0.257 cum Less for cover 0.61x0.455x0.15m = (-) 0.042 cum Net qty= 0.215 cum Say 0.22 cum				
15.3	Rate as per item no 15.3 of SH : Demolishing and dismantling	cum	0.22	2928.10	644.18 A
9999	Removal of C.I. Cover with frame	L.S.	7.15	2.12	15.16
	TOTAL				2090.98 W
	Add 1 % Water charges on "W-A"				0.15
	TOTAL				2091.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.15
	TOTAL				2093.28 Y
	Add 15% CPOH on "Y-A"				2.62
	TOTAL				2095.90 Z
	Add Cess @ 1% on "Z-A"				0.20
	Cost of one no				2096.10
	Say				2096.10
	FOR DPA 30% LESS				**1467.27**

19.21.2 Rectangular manhole 120x90 cm and 90 cm deep

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of a manhole 120x90 and 90 cm deep Dismantling of cement concrete 1:4:8 (1 cement : 4 coarse sand 8 : aggregate stone 40 mm nominal size) 1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum				
15.2.2	Rate as per item no. 15.2.2 of SH : Dismantling and demolishing	cum	0.55	1239.60	681.78 A
	Dismantling of secon class brick work in cement mortar 1:4 (1 cement : 4 coarse sand) 5.12x0.23x0.80 m = 0.942 cum Less for pipe 2x3.14x(0.15m)²x0.23 m = (-) 0.008 cum Net qty = 0.934 cum Say 0.93 cum				
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing	cum	0.93	1698.45	1579.56 A
	Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)				

	2x1.20x0.90x(0.80/2) x (0.30+0.20)/2				
	= 2.70 cum				
	Less for pipe 1.20x3.14/4x(0.15m)²				
	= (-) 0.021 cum				
	= 0.249 cum say 0.25				
15.2.1	Rate as per item no. 15.2.1 of				
	SH : Dismantling and demolishing	cum	0.25	2007.10	501.78 A
	Dismantling of R.C.C slab of 1:2:4				
	(1 cement : 2 coarse sand : 4 grade				
	stone aggregate 20 mm nominal size)				
	For slab : 1.66x1.36x0.15m = 0.339 cum				
	Less for cover 3.14/4x(0.50)²x0.15m				
	= (-) 0.029 cum				
	Net qty = 0.31 cum				
15.3	Rate as per item no 15.3 of				
	SH : Demolishing and dismantling	cum	0.31	2928.10	907.71 A
9999	Removal of C.I. Cover with frame	L.S.	7.15	2.12	15.16
	TOTAL				3685.98 W
	Add 1 % Water charges on "W-A"				0.15
	TOTAL				3686.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.15
	TOTAL				3688.29 Y
	Add 15% CPOH on "Y-A"				2.62
	TOTAL				3690.90 Z
	Add Cess @ 1% on "Z-A"				0.20
	Cost of one no				3691.10
	Say				3691.10
	FOR DPA 30% LESS				**2583.77**

19.21.3 Rectangular arch type manhole 140x90 cm and 2.45 m deep

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of a manhole 140x90 cm and 2.45 m deep				
	Dismantling of cement concrete 1:4:8 (1 cement : 4 coarse sand 8 :				
	aggregate stone 40 mm nominal size) 2.16m x 1.66m x 0.20m = 0.72 cum				
15.2.2	Rate as per item no. 15.2.2 of				
	SH : Dismantling and demolishing	cum	0.72	1239.60	892.51 A
	Dismantling of second class brick work				
	in cement mortar 1:4 (1 cement :				
	4 coarse sand)				
	Brick work in item 5.52mx0.23mx1.20m				
	= 1.524 cum				
	3.92mx0.23mx1.15m = 1.037 cum				
	= 2.561 cum				
	Deduct arch ring and portion of pipe				
	2x½x3.14x0.25mx0.23x0.1m				
	= 0.018 cum				
	2x3.14/4(0.15)²x0.23m = 0.008 cum				
	= (-) 0.026 cum				
	Net qty = 2.561 - 0.026 = 2.535 cum				
	Say 2.54 cum				
	Brick work in arch				
	½x3.14x1.13x0.80x0.23m = 0.327 cum				
	2x½x3.14x0.25mx0.23x0.1m				
	= 0.018 cum				
	= 0.345 cum Say 0.35 cum				
	Net qty = 2.54+0.35 = 2.89 cum				
15.7.4	Rate as per item no. 15.7.4 of				
	SH :dismantling and dimolishing	cum	2.89	1698.45	4908.52 A

	Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 2x1.4x0.90/2x(0.20+0.30)/2 = 0.315 cum Less pipe 1.4x3.14/4x(0.15)^2 = (-) 0.025 cum Net qty = 0.290 cum				
15.2.1	Rate as per item no. 15.2.1 of SH : Dismantling and demolishing	cum	0.29	2007.10	582.06 A
	Dismantling of R.C.C slab of 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) 1.36mx1.06mx0.15 = 0.216 cum Less cover 3.14/4x(0.50)^{2}x0.15m = (-) 0.029 cum = 0.187 cum Say 0.19 cum				
15.3	Rate as per item no 15.3 of SH : Demolishing and dismantling	cum	0.19	2928.10	556.34 A
9999	Removal of C.I. Cover with frame	L.S.	7.15	2.12	15.16
9999	Removal of M.S foot rest	L.S.	8.06	2.12	17.09
	TOTAL				6971.68 W
	Add 1 % Water charges on "W-A"				0.32
	TOTAL				6972.00 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.58
	TOTAL				6976.57 Y
	Add 15% CPOH on "Y-A"				5.57
	TOTAL				6982.15 Z
	Add Cess @ 1% on "Z-A"				0.43
	Cost of one no				6982.57
	Say				6982.55
	FOR DPA 30% LESS				**4887.785**

19.21.4 Circular manhole 122 cm diameter and 1.68 m deep

Code	Description	Unit	Quantity	Rate	Amount

Code	Description	Unit	Quantity	Rate	Amount
15.2.1 15.7.4 15.2.1 9999	Details of cost of a manhole 1.22 m internal diameter 1.68 m deep Dismantling of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 aggregate stone 40 mm nominal size) 1.98x1.98x0.30 m = 1.178 cum Say 1.18 cum Rate as per item no 15.2.1 of SH : Dismantling Dismantling of second class brick work in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.45x0.24x0.23 = 0.251 3.14x(1.45+0.79)/2x1.32x0.23 = 1.069 = 1.320 Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.23x0.10 m = 0.018 cum 2x3.14/4x(0.15)²x0.23 = 0.008 cum = 0.026 cum Net quantity 1.320-0.026 = 1.294 Say 1.29 cum Brick work in arches 2x1/2x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum Total = 1.294+0.02 = 1.1.314 cum. Say 1.131 cum Rate as per item no. 15.7.4 of SH :dismantling and dimolishing Dismantaling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 gradeed stone aggregate 20 mm nominal size) For benching : 3.14/4x(1.22)²x0.20 = 0.234 cum [(2x8.133)/360]x(4/3)x3.14x(0.61)³ Total =0.043 cum 0.024 + 0.043 = 0.277 cum	cum cum cum L.S.	1.18 1.31 0.35 7.15	2007.10 1698.45 2007.10 2.12	2368.38 A 2224.97 A 702.49 A 15.16
9999	Removal of M.S. foot rests	L.S.	8.06	2.12	17.09
	TOTAL				5328.08 W
	Add 1 % Water charges on "W-A"				0.32
	TOTAL				5328.40 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.58
	TOTAL				5332.98 Y
	Add 15% CPOH on "Y-A"				5.57
	TOTAL				5338.55 Z
	Add Cess @ 1% on "Z-A"				0.43
	Cost of one no				5338.97
	Say				5338.95
	FOR DPA 30% LESS				**3737.265**

19.22 Extra for depth of manholes dismantled :
19.22.1 Rectangular manhole 90x80 cm and beyond 45 cm depth

Code	Description	Unit	Quantity	Rate	Amount
15.7.4 9999	Details of cost for one metre Dismantling of second class brick work in cement mortar 1:5 (1 Cement : 5 fine sand) 4.32x0.23x1.0m = 0.994 cum Say 0.99 cum Rate as per item no. 15.7.4 of SH :dismantling and dimolishing Removing of M.S. foot rests TOTAL Add 1 % Water charges on "W-A" TOTAL Add GST on "X-A" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y-A" TOTAL Add Cess @ 1% on "Z-A" Cost for one metre Say	cum L.S.	0.99 1.82	1698.45 2.12	1681.47 A 3.86 1685.32 W 0.04 1685.36 X 0.55 1685.91 Y 0.67 1686.58 Z 0.05 1686.63 1686.65
	FOR DPA 30% LESS				**1180.655**

19.22.2 Rectangular manhole 120x90 cm and beyond 90 cm depth

Code	Description	Unit	Quantity	Rate	Amount

15.7.4	Details of cost for one metre Dismantling of second class brick work in cement mortar 1:5 (1 Cement : 5 fine sand) 5.12x0.23x1.0m = 1.178 cum Say 1.18 cum Rate as per item no. 15.7.4 of SH :dismantling and dimolishing	cum	1.18	1698.45	2004.17 A
9999	Removing of M.S. foot rests	L.S.	1.82	2.12	3.86
	TOTAL				2008.03 W
	Add 1 % Water charges on "W-A"				0.04
	TOTAL				2008.07 X
	Add GST on "X-A" (multiplying factor 0.1405)				0.55
	TOTAL				2008.62 Y
	Add 15% CPOH on "Y-A"				0.67
	TOTAL				2009.28 Z
	Add Cess @ 1% on "Z-A"				0.05
	Cost for one metre				2009.33
	Say				2009.35
	FOR DPA 30% LESS				**1406.545**

19.22.3 Rectangular arch type manhole 140x90 cm and beyond 2.45 m depth (up to 4.25 m depth)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.80 metre Dismantling IInd class brick work in cement mortar 1:4 (1 Cement : 4 Coarse sand) for 2.45 depth Qty for 2.45m depth 5.52mx0.23mx1.20m = 1.524 cum 3.92mx0.23mx1.15m = 1.037 cum Total = 2.561 cum Deduct arch ring and portion of pipe 2x½x3.14x0.25mx0.23x0.1m = 0.018 cum 2x3.14/4(0.15)²x0.23m = 0.008 cum Total deduction= = (-) 0.026 cum Net 2.561 - 0.026 = 2.535 cum Say 2.54 cum Qty in arch ½x3.14x1.13x0.80x0.23m = 0.327 cum 2x½x3.14x0.25mx0.23x0.1m = 0.018 cum Total = 0.345 cum Say 0.35 cum Totol for 4.45 m depth 2.54 + 0.35 = 2.89 cum Qty for 4.25m depth 5.52mx0.23mx1.20m = 1.524 cum 3.92mx0.23mx2.95m = 2.660 cum Total = 4.184 cum Deduct arch ring and portion of pipe 2x½x3.14x0.70mx0.23x0.1m = 0.051 cum 2x3.14/4x(0.60)²x0.23 = 0.130 cum Total deduction== (-) 0.181 cum Net 4.184 - 0.181 = 4.003 cum Say 4.00 cum Qty in arch ½x3.14x1.13x0.80x0.23m = 0.327 cum				

15.7.4 15.2.1	2x½x3.14x0.70mx0.23x0.1m = 0.051 cum Total = 0.378 cum Say 0.38 cum Total for 2.25 m depth = 4.0+ 0.38 =4.38 cum Net difference = 4.38 - 2.89 = 1.49 cum Rate as per item no. 15.7.4 of SH :dismantling and dimolishing Dismantling cement concrete 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size) Qty for 4.25m depth 2x1.4x(0.90/2)x(0.65+0.75)/2 = 0.882 cum Less pipe :1.4x3.14/4x(0.60)²(-) = 0.396 cum = 0.486 cum Say 0.49 cum Qty for 2.45m depth 2x1.4x(0.90/2)x(0.20+0.30)/2 = 0.315 cum Less pipe :1.4x3.14/4x(0.15)²(-) = 0.025 cum = 0.290 cum Say 0.29 cum Net difference = 0.49 - 0.29 = 0.20 cum Rate as per item no 15.2.1 of SH : Demolishing and dismantling Cost for 1.8 metre depth Cost for 1 metre depth Say	cum cum	1.49 0.20	1698.45 2007.10	2530.69 A 401.42 A 2932.11 1628.95 1628.95
	FOR DPA 30% LESS				**1140.265**

19.25.4 Circular manhole 122 cm diameter and beyond 1.68 m depth (up to 2.29 m

Code	Description	Unit	Quantity	Rate	Amount
15.2.1	Details of cost for 0.61 metre Dismantling cement concrete 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) 1.98x1.98x0.30 = 1.178 cum. Say 1.18 cum. (Rate as per item No.15.2.1 of SH. dismantling and Demolishing) Dismantling IInd class brick work in cement mortar 1:4 (1 Cement : 4 Coarse sand) Curved on plan 3.14x1.45x0.85x0.23 = 0.891 3.14x(1.45+0.79)/2x1.32x0.23 = 1.069 Total = 0.891 + 1.069 = 1.96 cum Duduct arch ring and portion of pipe 2x1/2x3.14x0.25mx0.23x0.10 m = 0.018 cum	cum	1.18	2007.10	2368.38 A

Code	Description	Unit	Quantity	Rate	Amount
15.7.4	2x3.14/4x(0.15)²x0.23 = 0.008 cum Total deduction = 0.026 cum Net quantity 1.96-0.026 = 1.934 Say 1.93 cum Qty in arch 2x1/2x3.14x0.25 m x0.23x0.10 m = 0.018 cum Say 0.02 cum Total = 1.93 + 0.02 = 1.97 cum Rate as per item no 15.7.4 of SH : Dismantling and demolishing Dismantling cemnet concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size For benching : 3.14/4x(1.22)²x0.20 = 0.234 cum [(2x8.133)/360]x(4/3)x3.14x(0.61)³ =0.043 cum = 0.277 cum Less pipe :1.22x3.14/4x(0.15)²(-) = 0.0216 cum Net qty== 0.2554 cum Say 0.26 cum For fixing cover : 3.14/4 x d2 x thickness	cum	1.97	1698.45	**3345.95 A**

	0.7854x1.020x1.020x0.15 m =0.123 cum				
	Less cover 3.14/4x$(0.28)^2$ x 0.15 m :				
	= (-)0.037 cum				
	Net qty= 0.086 cum Say 0.09 cum				
	Total = 0.26 + 0.09 = 0.35 cum				
15.2.1	Rate as per item no 15.2.1 of				
	SH : Dismantling	cum	0.35	2007.10	**702.49 A**
9999	Removal of SFRC cover	L.S.	7.15	2.12	**15.16**
9999	Removal of M.S. foot rests	L.S.	8.09	2.12	**17.15**
	Deduct cost of dismantling manhole				
	1.68m deep				
19.24.4	Rate as per Item No.19.24.4 of				
	SH: DRAINAGE	each	-1.00	5338.95	**-5338.95 A**
	TOTAL				**1110.17 W**
	Add 1 % Water charges on "W-A"				**0.32**
	TOTAL				**1110.49 X**

	Add GST on "X-A" (multiplying factor 0.1405)				**4.58**
	TOTAL				**1115.08 Y**
	Add 15% CPOH on "Y-A"				**5.58**
	TOTAL				**1120.66 Z**
	Add Cess @ 1% on "Z-A"				**0.43**
	Cost of manhole 0.61m depth				**1121.09**
	Cost per metre depth				**1837.85**
	Say				**1837.85**
	FOR DPA 30% LESS				**1286.50**

19.23 Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) :

19.23.1 Rectangular manhole 90x80 cm with rectangular cover 600 x 450 mm of grade LD - 2.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one manhole				
	Dismantling of R.C.C slab of 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III): 3 aggregate stone 20 mm nominal size) = 1.36x1.26x0.15 = 0.257 cum				
	Less cover with frame portion 0.85x0.70x0.15 =(-) 0.089 cum				
	Net qty=0.168 cum Say 0.17 cum				
15.3	Rate as per item no. 15.3 of SH : Dismantling and demolishing	cum	0.17	2928.10	**497.78 A**
9999	Removal of R.C.C cover and frame	L.S.	7.15	2.12	**15.16**
	Removal of R.C.C work 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)				
	For raised slab = 1.36x1.26x0.15 = 0.257 cum				
	Less portion cover with frame				

	= 0.85x0.70x0.15 =(-) 0.089 cum				
	Net qty = 0.168 cum Say 0.17 cum				
5.3	Rate as per item no. 5.3 of				
	SH : RCC work	cum	0.17	10719.30	**1822.28 A**
	Form work = 0.90x0.80 = 0.72 sqm				
	Less cover = 0.60x0.45 =(-) 0.27 sqm				
	Net qty = 0.45 sqm				
5.9.3	Rate as per item no 5.9.3 of				
	SH : RCC work	sqm	0.45	766.55	**344.95 A**
9999	Sundries	L.S.	13.52	2.12	**28.66**
	TOTAL				**2708.83 W**
	Add 1 % Water charges on "W-A"				**0.44**
	TOTAL				**2709.26 X**
	Add GST on "X-A" (multiplying factor 0.1405)				**6.22**
	TOTAL				**2715.48 Y**
	Add 15% CPOH on "Y-A"				**7.57**
	TOTAL				**2723.05 Z**
	Add Cess @ 1% on "Z-A"				**0.58**
	Cost of one no				**2723.63**
	Say				**2723.65**
	FOR DPA 30% LESS				**1906.56**

19.23.2 Rectangular manhole 120x90 cm with circular cover 500 mm dia of grade MD - 10

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one manhole Dismantling of R.C.C slab of 1:1.5:3 (1 cement : 1.5 coarse sand : 3 aggregate stone 20 mm nominal size)				
	1.66x1.36x0.15 = 0.339 cum				
	Less for R.C.C cover with frame				
	3.14/4x(0.80)²x0.15 =(-) 0.075 cum				
	Net qty 0.264 cum Say 0.26 cum				
15.3	Rate as per item no. 15.3 of				
	SH : Dismantling and demolishing	cum	0.26		

9999	Removal of R.C.C cover and frame	L.S.	7.15		
	R.C.C work 1:1.5:3 (1 cement :				
	1.5 coarse sand : 3 graded stone				
	aggregate 20 mm nominal size)			**2928.10**	761.31 A
	1.66x1.36x0.15 = 0.339 cum			**2.12**	15.16
	Less portion cover with frame				
	= 3.14/4x0.80x0.80x0.15 =(-) 0.075 cum				
	Net qty= 0.264 cum Say 0.26 cum				
5.3	Rate as per item no 5.3 of				
	SH : RCC Work	cum	0.26		
	Form work = 1.2x0.90 = 1.08 sqm				
	Less cover = 3.14/4x(0.50)²				
	=(-) 0.196 sqm				
	Net qty= 0.884 sqm Say .88 sqm			**10719.30**	2787.02 A
5.9.3	Rate as per item no 5.9.3 of				
	SH : RCC work	sqm	0.88		674.56 A
9999	Sundries	L.S.	16.64		35.28
	TOTAL				4273.32 W
	Add 1 % Water charges on "W-A"				0.50
	TOTAL			**766.55**	4273.83 X
	Add GST on "X-A" (multiplying			**2.12**	
	factor 0.1405)				7.16
	TOTAL				4280.98 Y
	Add 15% CPOH on "Y-A"				8.71
	TOTAL				4289.70 Z
	Add Cess @ 1% on "Z-A"				0.67
	Cost of one no				4290.37
	Say				4290.35
	FOR DPA 30% LESS				**3003.25**

19.23.3 Rectangular manhole 120x90 cm with circular cover 560 mm dia of grade HD - 20

Code	Description	Unit	Quantity		
15.3	Details of cost for one manhole Dismantling of R.C.C slab of 1:1.5:3 (1 cement : 1.5 coarse sand : 3 aggregate stone 20 mm nominal size) 1.66x1.36x0.15 = 0.339 cum Less for R.C.C cover with frame 3.14/4x(0.90)²x0.15 =(-) 0.095 cum Net qty 0.244 cum Say 0.24 cum Rate as per item no 15.3 of SH : Dismantling and demolishing	cum	0.24		

Code	Description	Unit	Quantity	Rate	Amount
9999	Removal of R.C.C cover and frame	L.S.	7.15	**2.12**	15.16
	R.C.C work 1:1.5:3 (1 cement :				
	1.5 coarse sand : 3 graded stone				
	aggregate 20 mm nominal size)				
	1.66x1.36x0.15 = 0.339 cum				

	Less portion cover with frame				
	= 3.14/4x0.90x0.90x0.15				
	=(-) 0.095 cum				
	Net qty= 0.244 cum Say 0.24 cum				
5.3	Rate as per item no 5.3 of				
	SH : RCC Work	cum	0.24	**10719.30**	2572.63 A
	Form work = 1.2x0.90 = 1.08 sqm				
	Less cover = 3.14/4x(0.56)²				
	=(-) 0.246 sqm				
	Net qty= 0.834 sqm Say .83 sqm				
5.9.3	Rate as per item no 5.9.3 of				
	SH : RCC work	sqm	0.83	**766.55**	636.24 A
9999	Sundries	L.S.	20.28	**2.12**	42.99
	TOTAL				3969.76 W
	Add 1 % Water charges on "W-A"				0.58
	TOTAL				3970.35 X
	Add GST on "X-A" (multiplying factor 0.1405)				8.25
	TOTAL				3978.60 Y
	Add 15% CPOH on "Y-A"				10.05
	TOTAL				3988.65 Z
	Add Cess @ 1% on "Z-A"				0.77
	Cost of one no				3989.42
	Say				3989.40
	FOR DPA 30% LESS				**2792.58**

19.23.4 Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35

Code	Description	Unit	Quantity	Rate	Amount
15.3 9999 4.2.3	Details of cost for one manhole Dismantling of C.C slab of 1:2:4 (1 cement 2 coarse sand : 4 aggregate stone 20 mm nominal size) = 3.14/4x(0.985)²x0.15 = 0.114 cum Less cover =3.14/4x(0.90)²x0.15 =(-) 0.095 cum Net qty= 0.019 cum Say 0.02 cum Rate as per item no. 15.3 of SH : Dismantling and demolishing Removal of R.C.C cover and frame C.C work 1:2:4 (1 cement : 2 coarse sand 4 graded stone aggregate 20 mm nominal size) 3.14/4x(0.985)²x0.15 = 0.114 cum Less portion cover with frame = 3.14/4x(0.90)²x0.15 =(-) 0.095 cum Net qty= 0.019 cum Say 0.02 cum Rate as per item no 4.2.3 of SH : Concrete Work	cum L.S. cum	0.02 8.06 0.02	2928.10 2.12 9375.20	58.56 A 17.09 187.50 A
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
9999	Sundries	L.S.	20.28	**2.12**	42.99
	TOTAL				306.15 W
	Add 1 % Water charges on "W-A"				0.60
	TOTAL				306.75 X
	Add GST on "X-A" (multiplying factor 0.1405)				8.53
	TOTAL				315.27 Y
	Add 15% CPOH on "Y-A"				10.38
	TOTAL				325.65 Z
	Add Cess @ 1% on "Z-A"				0.80
	Cost of one no				326.45
	Say				326.45
	FOR DPA 30% LESS				**228.52**

19.24 Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :

19.24.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
4.1.11 6.1.1 13.9.1 4.2.3 5.9.2	Details of cost for one chamber MATERIAL Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 1.11mx1.06mx0.15 m= 0.176 cum Say 0.18 cum Rate as per item no 4.1.11 of SH : Concrete Work Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 2.82 m x 0.23m x0.45 m = 0.29 cum Rate as per item no 6.1.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement Wall : 1.90x0.45 m = 0.855 sqm Bed : 0.45x0.50 m = 0.225 sqm Total= 1.080 sqm Rate as per item no 13.9.1 of SH : Finishing Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 2.82x0.23x0.15 m = 0.097 cum Say 0.10 cum Rate as per item no 4.2.3 of SH : Concrete Form work 3.50x0.15 m = 0.525 sqm Say 0.53 sqm Rate as per item no 5.9.2 of SH : RCC	cum cum sqm cum sqm	0.18 0.29 1.08 0.10 0.53	5660.45 6882.00 386.55 9375.20 669.55	**1018.88 A** **1995.78 A** **417.47 A** **937.52 A** **354.86 A**

Code	Description	Unit	Quantity	Rate	Amount
7380	Precast R.C.C. grating with frame				
	500x450 mm horizontal grating	each	1.00	**620.00**	620.00
9977	Carriage of R.C.C. grating	L.S.	7.15	**2.12**	15.16
9999	Fixing R.C.C. grating	L.S.	5.33	**2.12**	11.30
	TOTAL				5370.97 W
	Add 1 % Water charges on "W-A"				6.46
	TOTAL				5377.44 X
	Add GST on "X-A" (multiplying factor 0.1405)				91.74
	TOTAL				5469.17 Y
	Add 15% CPOH on "Y-A"				111.70
	TOTAL				5580.87 Z
	Add Cess @ 1% on "Z-A"				8.56
	Cost of one chamber				5589.44
	Say				5589.45
	FOR DPA 30% LESS				**3912.62**

19.25 Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design :

19.25.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount

4.1.11 6.1.1	Details of cost for one chamber Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 1.06mx1.06mx0.15 m= 0.17 cum Rate as per item no 4.1.11 of SH : Concrete Work Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 2.72 m x 0.23m x0.70 m = 0.438 cum Deduct opening 0.45x0.23x0.10 m = 0.01 cum Block 3x(0.075)³ = 0.001 cum Total deduction = 0.011 cum Net qty. = 0.438 (-) 0.011 = 0.427 cum Say 0.43 cum Rate as per item no 6.1.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement Wall : 1.80x0.70 m = 1.26 sqm Bed : 0.45x0.45 m = 0.202 sqm Top : 0.45x0.20 m = 0.09 sqm Sides : 2x0.20x0.10 m = 0.04 sqm Total= 1.592 sqm Deduct opening 0.45x0.10 m = 0.045 sqm Net qty. = 1.592 (-) 0.045 = 1.547 cum Say 1.55 cum	cum cum	0.17 0.43	5660.45 6882.00	962.28 A 2959.26 A

Code	Description	Unit	Quantity	Rate	Amount
13.9.1	Rate as per item no 13.9.1 of				
	SH : Finishing	sqm	1.55	**386.55**	599.15 A
	Cement concrete 1:2:4 (1 cement :				
	2 coarse sand : 4 graded stone				
	aggregate 20 mm nominal size)				
	Block = 3x(0.75)³ = 0.001 cum				
4.2.3	Rate as per item no 4.2.3 of				
	SH : Concrete	cum	0.001	**9375.20**	9.38 A
	R.C.C. 1:1.5:3 (1 cement : 1.5 coarse				
	sand : 3 graded stone aggregate				
	20 mm nominal size)				
	0.91x0.91x0.075 m = 0.062 cum				
	Say 0.06 cum				
5.3	Rate as per item no. 5.3 of				
	SH : RCC work	cum	0.06	**10719.30**	643.16 A
	Less labour for not lifting the materilas				
	upto floor five level				
0115	Coolie	day	-0.113	**645.00**	-72.89
	Form work				
	0.45x0.45 m = 0.202 sqm				
	0.45x0.20 m = 0.09 sqm				
	outside slab : 3.40x0.075 m				
	= 0.255 sqm				
	Total= 0.547 sqm Say 0.55 sqm				
5.9.2	Rate as per item no 5.9.2 of				
	SH : RCC	sqm	0.55	**669.55**	368.25 A
	Mild steel reinforcement for				
	R.C.C work				
	0.062 cum @ 80 kg/cum = 4.96 kg				
5.22.1	Rate as per item no. 5.22.1 of				
	SH : RCC work	kg	4.96	**88.95**	441.19 A
7381	Precast R.C.C. grating with frame				

	450x100 mm vertical grating	each	1.00	**235.00**	235.00
9999	Fixing and carriage of R.C.C. grating	L.S.	20.67	**2.12**	43.82
	TOTAL				6188.60 W
	Add 1 % Water charges on "W-A"				2.06
	TOTAL				6190.66 X
	Add GST on "X-A" (multiplying factor 0.1405)				29.22
	TOTAL				6219.88 Y
	Add 15% CPOH on "Y-A"				35.58
	TOTAL				6255.47 Z
	Add Cess @ 1% on "Z-A"				2.73
	Cost of one chamber				6258.20
	Say				6258.20
	FOR DPA 30% LESS				**4380.74**

19.26 Constructing brick masonry road gully chamber 110x50x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm precast R.C.C. horizontal grating with frame and vertical grating complete as per standard design :

19.26.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one chamber Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 1.71mx1.11mx0.15 m = 0.285 cum Say 0.29 cum Rate as per item no 4.1.11 of SH : Concrete Work Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 1.91 m x 0.23m x0.45 m = 0.199 cum 2.20mx0.23mx0.70 m = 0.354 cum Total= 0.553 cum Deduct lintel portion 2x0.23x0.20x0.20 m = (-) 0.018 cum Nte Qty= 0.0535 cum Say 0.54 cum Rate as per item no 6.1.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement Wall : 1.80x0.70 m = 1.26 sqm Wall : 1.40x0.45 m = 0.63 sqm Bed : 1.10x0.50 m = 0.55 sqm Total= 2.44 sqm Deduct 2x0.20x0.20 m = (-) 0.08 sqm Net Qty= 2.36 sqm Rate as per item no 13.9.1 of SH : Finishing Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) Block = 1.92x0.23x0.15 = 0.07 cum Rate as per item no 4.2.3 of SH : Concrete Work R.C.C. 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) 0.88x0.96x0.075 m = 0.063 cum Say 0.06 cum				
4.1.11		cum	0.29	5660.45	**1641.53 A**
6.1.1		cum	0.54	6882.00	**3716.28 A**
13.9.1		sqm	2.36	386.55	**912.26 A**
4.2.3		cum	0.07	9375.20	**656.26 A**
5.3		cum	0.06	10719.30	**643.16 A**
0115		day	-0.113	645.00	**-72.89**
	FOR DPA 30% LESS				**-51.02**

Code	Description	Unit	Quantity	Rate	Amount
5.13	Rate as per item no. 5.13 of				

	SH : RCC work	cum	0.04	**13581.85**	543.27	A
	Form work					
	Slab bottom 0.50x0.65 m = 0.325 sqm					
	Outer periphery 3.50x0.075 m					
	= 0.263 sqm					
	2.20x0.15 m = 0.330 sqm					
	= 0.918 sqm Say 0.91 sqm					
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	0.91	**669.55**	609.29	A
	Mild steel reinforcement for R.C.C work					
	(0.06+0.04) = 0.10 cum @ 80 kg/cum					
	= 8.00 kg					
5.22.1	Rate as per item no. 5.22.1 of					
	SH : RCC work	kg	8.00	**88.95**	711.60	A
7380	Precast R.C.C. grating with frame					
	500x450 mm horizontal grating	each	1.00	**620.00**	620.00	
9977	Carriage of R.C.C. grating	L.S.	7.15	**2.12**	15.16	
7381	Precast R.C.C. grating with frame					
	450x100 mm vertical grating	each	1.00	**235.00**	235.00	
9999	Labour for fixing precast R.C.C. grating					
	and frame	L.S.	34.06	**2.12**	72.21	
	TOTAL				10303.14	W
	Add 1 % Water charges on "W-A"				8.69	
	TOTAL				10311.83	X
	Add GST on "X-A" (multiplying					
	factor 0.1405)				123.38	
	TOTAL				10435.21	Y
	Add 15% CPOH on "Y-A"				150.23	

	TOTAL				10585.45 Z
	Add Cess @ 1% on "Z-A"				11.52
	Cost of one chamber				10596.97
	Say				10596.95
	FOR DPA 30% LESS				**7417.87**

19.27 Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 fine sand : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design:

19.27.1 Inside dimensions 455x610 mm and 45 cm deep for single pipe line :

19.27.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one chamber Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)				
	1.22mx1.065mx0.15 m= 0.195 cum				
	Say 0.20 cum				
4.1.11	Rate as per item no 4.1.11 of				
	SH : Concrete Work	cum	0.20	**5660.45**	1132.09 A
	Brick work in bricks of clas designation				
	7.5 in cement mortar 1:4 (1 cement :				
	4 coarse sand)				
	3.05 m x 0.23m x0.30 m = 0.210 cum				
	Less pipe				
	$2x3.14/4x(0.10)^2x0.23$ m = (-) 0.004 cum				
	Net Qty= 0.206 cum Say 0.21 cum				
6.1.1	Rate as per item no 6.1.1 of				
	SH : Brick Work	cum	0.21	**6882.00**	1445.22 A
	12 mm cement plaster 1:3 (1 cement :				
	3 coarse sand) finished with floating				
	coat of neat cement				
	Wall : 2.13x0.30 m = 0.639 sqm				
	Bed : 0.61x0.455 m = 0.278 sqm				
	Total= 0.917 sqm				
	Less pipe $2x3.14/4x(0.10)^2$				
	= (-) 0.016 sqm				
	Net Qty= 0.901 sqm Say 0.90 sqm				
13.9.1	Rate as per item no 13.9.1 of				
	SH : Finishing	sqm	0.90	**386.55**	347.90 A
	Cement concrete 1:1.5:3 (1 cement :				
	1.5 coarse sand : 3 graded stone				
	aggregate 20 mm nominal size)				
	3.05x0.23x0.15 = 0.105 cum				
	say 0.11 cum				
5.3	Rate as per item no 5.3 of SH : RCC	cum	0.11	**10719.30**	1179.12 A
	Form work				
	Outer periphery 3.73x0.15 m = 0.56 sqm				
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	0.56	**669.55**	374.95 A
1354	Rectangular cover 455x610 mm with				
	frame (low duty)	each	1.00	**1400.00**	1400.00
9977	Carriage of C.I.cover and frame	L.S.	7.15	**2.12**	15.16
9999	Painting of C.I. Cover and frame				
	with coal tar	L.S.	7.15	**2.12**	15.16
9999	Sundries	L.S.	13.52	**2.12**	28.66
	TOTAL				5938.25 W
	Add 1 % Water charges on "W-A"				14.59
	TOTAL				5952.84 X
	Add GST on "X-A" (multiplying				

	factor 0.1405)				207.04
	TOTAL				6159.88 Y
	Add 15% CPOH on "Y-A"				252.09
	TOTAL				6411.97 Z
	Add Cess @ 1% on "Z-A"				19.33
	Cost of one chamber				6431.30
	Say				6431.30
	FOR DPA 30% LESS				**4501.91**

19.27.2 Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets :

19.27.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of one no.				
	Cement concrete 1:5:10 (1 cement :				
	5 fine sand : 10 graded stone				

	aggregate 40 mm nominal size)				
	1.31mx1.11mx0.15 m= 0.22 cum				
4.1.11	Rate as per item no 4.1.11 of				
	SH : Concrete Work	cum	0.22	5660.45	**1245.30 A**
	Brick work in bricks of class				
	designation 7.5 in cement mortar				
	1:4 (1 cement : 4 fine sand)				
	3.32 m x 0.23m x0.30 m = 0.229 cum				
	Less pipe				
	$3x3.14x(0.10)^2x0.23$ m = (-) 0.005 cum				
	Net Qty= 0.224 cum Say 0.22 cum				
6.1.1	Rate as per item no 6.1.1 of				
	SH : Brick Work	cum	0.22	6882.00	**1514.04 A**
	12 mm cement plaster 1:3 (1 cement :				
	3 coarse sand) finished with floating				
	coat of neat cement				
	Wall : 2.40x0.30 m = 0.72 sqm				
	Bed : 0.70x0.50 m = 0.35 sqm				
	= 1.07 sqm				
	Less pipe $3x3.14/4x(0.10)^2$ = (-) 0.02 sqm				
	Net Qty= 1.05 sqm				
13.9.1	Rate as per item no 13.9.1 of				
	SH : Finishing	sqm	1.05	386.55	**405.88 A**
	R.C.C 1:1.5:3 (1 cement : 1.5 coarse				
	sand : 3 graded stone aggregate				
	20 mm nominal size)				
	1.16x0.96x0.15 = 0.167 cum				
	Deduct cover				
	0.61x0.45x0.15 m = (-) 0.042 cum				
	Net Qty= 0.125 cum Say 0.13 cum				
5.3	Rate as per item no. 5.3 of				
	SH : RCC work	cum	0.13	10719.30	**1393.51 A**
	Form work				
	Inside area of chamber : 0.70x0.50 m				
	= 0.35 sqm				
	Outer periphery 4.00x0.15 m				
	= 0.60 sqm = 0.95 sqm				
	Deduct cover : 0.61x0.455 m				
	= (-) 0.278 sqm				
	= 0.672 sqm Say 0.67 sqm				
5.9.2	Rate as per item no 5.9.2 of				
	SH : RCC	sqm	0.67	669.55	**448.60 A**
	Less labour for not lifting the materilas				
	upto floor five level				
0115	Coolie	day	-0.24	645.00	**-154.80**
	M.S.reinforcement for slab				
	0.13 cum @ 48.06 kg/cum = 6.25 kg				
5.22.1	Rate as per item no. 5.22.1 of				
	SH : RCC work	kg	6.25	88.95	**555.94 A**

Code	Description	Unit	Quantity	Rate	Amount
1354	Rectangular cover 455x610 mm				
	with frame (low duty)	each	1.00	**1400.00**	1400.00
9977	Carriage of C.I. Cover and frame	L.S.	7.15	**2.12**	15.16
9999	Painting of C.I. Cover and frame with				
	coal tar	L.S.	7.15	**2.12**	15.16
9999	Sundries	L.S.	13.52	**2.12**	28.66
	TOTAL				6867.44 W
	Add 1 % Water charges on "W-A"				13.04
	TOTAL				6880.48 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				185.07

	TOTAL					7065.55 Y

	Add 15% CPOH on "Y-A"				225.34
	TOTAL				7290.89 Z
	Add Cess @ 1% on "Z-A"				17.28
	Cost of one chamber				7308.17
	Say				7308.15
	FOR DPA 30% LESS				**5115.71**

19.27.3 Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets :

19.27.3.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
4.1.11 6.1.1	Details of cost of one chamber Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 1.46mx1.21mx0.15 m= 0.26 cum Rate as per item no 4.1.11 of SH : Concrete Work Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 3.82 m x 0.23m x0.30 m = 0.26 cum Less pipe 5x3.14x(0.10)²x0.23 m = (-) 0.009 cum Net Qty= 0.255 cum Say 0.26 cum Rate as per item no 6.1.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement Wall : 2.90x0.30 m = 0.87 sqm Bed : 0.85x0.60 m = 0.51 sqm Total= 1.38 sqm Less pipe 5x3.14/4x(0.10)² = (-) 0.04 sqm Net Qty= 1.34 sqm	cum cum	0.26 0.26	5660.45 6882.00	1471.72 A 1789.32 A

Code	Description	Unit	Quantity	Rate	Amount
13.9.1	Rate as per item no 13.9.1 of				
	SH : Finishing	sqm	1.34	386.55	**517.98 A**
	R.C.C 1:1.5:3 (1 cement : 1.5 coarse				
	sand : 3 graded stone aggregate				
	20 mm nominal size)				
	1.31x1.06x0.15 = 0.208 cum				
	Deduct cover				
	0.61x0.455x0.15 m = (-) 0.042 cum				
	Net Qty= 0.166 cum Say 0.17 cum				
5.3	Rate as per item no. 5.3 of				
	SH : RCC work	cum	0.17	10719.30	**1822.28 A**
	Less labour for not lifting the materilas				
	upto floor five level				
0115	Coolie	day	-0.32	645.00	**-206.40**
	Form work				
	Inside area of chamber : 0.85x0.60 m				
	= 0.511 sqm				
	Outer periphery 4.50x0.15 m				
	= 0.675 sqm				
	Total= 1.186 sqm				
	Deduct cover : 0.61x0.455 m				
	= (-) 0.278 sqm				
	Net Qty= 0.908 sqm Say 0.91 sqm				
5.9.2	Rate as per item no 5.9.2 of				
	SH : RCC	sqm	0.91	669.55	**609.29 A**
	M.S.reinforcement for slab for				
	0.17 cum				
	@ 48.06 kg/cum				
	= 48.06x0.17cum = 8.17 kg				
5.22.1	Rate as per item no. 5.22.1 of				
	SH : RCC work	kg	8.17	88.95	**726.72 A**
1354	Rectangular cover 455x610 mm				

	with frame (low duty)	each	1.00	1400.00	**1400.00**
9977	Carriage of C.I. Cover and frame	L.S.	7.15	2.12	**15.16**
9999	Painting of C.I. Cover and frame with				
	coal tar	L.S.	7.15	2.12	**15.16**
9999	Sundries	L.S.	13.52	2.12	**28.66**
	TOTAL				**8189.89 W**
	Add 1 % Water charges on "W-A"				**12.53**
	TOTAL				**8202.41 X**
	Add GST on "X-A" (multiplying				
	factor 0.1405)				**177.75**
	TOTAL				**8380.16 Y**
	Add 15% CPOH on "Y-A"				**216.43**
	TOTAL				**8596.59 Z**
	Add Cess @ 1% on "Z-A"				**16.59**
	Cost of one chamber				**8613.18**
	Say				**8613.20**
	FOR DPA 30% LESS				**6029.24**

19.28 Extra for depth beyond 45 cm of brick masonry chamber :

19.28.1 For 455x610 mm size

19.28.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount

6.1.1 13.9.1	Details of cost for one metre Brick work in bricks of clas designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 3.05 m x 0.23m x1.00 m = 0.70 cum Rate as per item no 6.1.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand finished with floating coat of neat cement Wall : 2.13x1.00 m = 2.13 sqm Rate as per item no 13.9.1 of SH : Finishing TOTAL Cost per metre Say	cum sqm	0.70 2.13	6882.00 386.55	4817.40 A 823.35 A 5640.75 5640.75 5640.75
	FOR DPA 30% LESS				**3948.53**

19.28.2 For 500x700 mm size

19.28.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
6.1.1 13.9.1	Details of cost for one metre Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 fine sand) 3.32 m x 0.23m x1.00 m = 0.76 cum Rate as per item no 6.1.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand finished with floating coat of neat cement Wall : 2.40x1.00 m = 2.40 sqm Rate as per item no 13.9.1 of SH : Finishing TOTAL Cost per metre Say	cum sqm	0.76 2.40	6882.00 386.55	5230.32 A 927.72 A 6158.04 6158.04 6158.05
	FOR DPA 30% LESS				**4310.64**

19.28.3 For 600x850 mm size

19.28.3.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one metre Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement: 4 coarse sand) 3.82 m x 0.23m x1.00 m = 0.88 cum				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
6.1.1 13.9.1	Rate as per item no 6.1.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand finished with floating coat of neat cement Wall : 2.90x1.00 m = 2.90 sqm Rate as per item no 13.9.1 of SH : Finishing TOTAL Cost per metre Say	cum sqm	0.88 2.9	**6882.00** **386.55**	6056.16 A 1121.00 A 7177.16 7177.16 7177.15
	FOR DPA 30% LESS				**5024.01**

19.29 Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.

19.29.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for one soak pit Earth work in excavation including disposal of surplus earth 3.14/ 4x(2.5)²x3m = 14.73 cum Rate as per item no. 2.8.1 of SH: Earth work Rate as per item no. 2.26.1 of SH : Earth work = 3.14/4x(2.5)² x 1.5 m = 7.37 cum 2nd class bricks perimetre = 4x0.35 =1.40 m Area = 1.40x2.925 m = 4.1 sqm Number of brick = 4.1x487x0.066 = 131.78 Wastage 10% = 13.718 Total= 144.96 Say 145 numbers Common burnt clay F.P.S. (non modular) bricks class designation 7.5 1000 Nos 0.145 4590.00 665.55 Brick bats = 3.14/4x(1.2)²x2.925m =3.33 cum Deduct = 0.45x0.45x2.925 m = 0.59 cum Net qty= 2.74 cum Brick bats Brick aggregate 50 to 80 mm nominal size = 3.14x1.50x0.03x2.925 m = 4.13 cum Brick Aggregate (Single size) : 63 mm nominal size Brick aggregate 40 mm nominal size = 3.14x2.15x0.35x2.925 m =6.91 cum Brick Aggregate (Single size) : 40 mm nominal size				
2.8.1		cum	14.73	286.85	4225.30 A
2.26.1		cum	7.37	104.50	770.17 A
2602					
0362		cum	2.74	450.00	1233.00
0285		cum	4.13	650.00	2684.50
0287		cum	6.91	650.00	4491.50
1854	Stoneware pipes grade A (60 cm long)				
	100 mm dia	each	3.00	**70.00**	210.00
	Carriage of brick bats and aggregate				
2260	Carriage of Brick aggregate	cum	13.78	**178.19**	2455.46
2201	Carriage of Bricks	1000 Nos	0.145	**437.15**	63.39
9999	Single matting 2.5x2.5 m = 6.25 sqm	L.S.	112.14	**2.12**	237.74
	Precast R.C.C.slabs 7.5 cm thick in cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) 0.45x0.45x0.075 m = 0.02 cum				
5.12	Rate as per item no 5.12 of SH : RCC	cum	0.02	**9673.50**	193.47 A
	Reinforcement @ 80 kg/cum = 0.02x80 =1.6 kg				
5.22.1	Rate as per item no. 5.22.1 of				
	SH : RCC work	kg	1.60	**88.95**	142.32 A
	2nd class brick edging laid length wise with half brick depth 3.14x2.6 m =8.17 m				
16.8.1	Rate as per item no. 16.8.1 of				
	SH : Road work	metre	8.17	**49.90**	407.68 A
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	**784.00**	392.00
0124	Mason (brick layer) 2nd class	day	0.50	**714.00**	357.00
0114	Beldar	day	3.00	**645.00**	1935.00
0115	Coolie	day	3.00	**645.00**	1935.00
	TOTAL				22399.07 W
	Add 1 % Water charges on "W-A"				166.60

	TOTAL				22565.67 X
	Add GST on "X-A" (multiplying factor 0.1405)				2364.16
	TOTAL				24929.83 Y
	Add 15% CPOH on "Y-A"				2878.63
	TOTAL				27808.46 Z
	Add Cess @ 1% on "Z-A"				220.70
	Cost of one soak pit				28029.16
	Say				28029.15

	FOR DPA 30% LESS				19620.41

19.30 Constructing soak pit 1.20x1.20x1.20 m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.

Code	Description	Unit	Quantity	Rate	Amount
2.8.1 0362 2260	Details of cost for one soak pit Earth work in excavation including disposal of surplus earth 1.2x1.2x1.2m = 1.73 cum (Rate as per item no. 2.8.1 of SH: Earth work) Brick bats 1.2x1.2x1.2 = 1.73 cum Carriage of Brick aggregate	cum cum cum	1.73 1.73 1.73	286.85 450.00 178.19	**496.25 A 778.50 308.27**

Code	Description	Unit	Quantity	Rate	Amount
16.8.1	Rate as per item no. 16.8.1 of				
	SH : Road work	metre	5.20	**49.90**	259.48 A
	Second class brick edging laid length				
	wise with half brick depth				
1854	Stoneware pipes grade A (60 cm long)				
	100 mm dia	each	2.00	**70.00**	140.00
9999	Sundries	L.S.	25.84	**2.12**	54.78
	LABOUR				
	For filling brick bats				
0114	Beldar	day	0.50	**645.00**	322.50
9999	Sundries	L.S.	13.52	**2.12**	28.66
	TOTAL				2388.44 W
	Add 1 % Water charges on "W-A"				16.33
	TOTAL				2404.77 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				231.69
	TOTAL				2636.46 Y
	Add 15% CPOH on "Y-A"				282.11
	TOTAL				2918.57 Z
	Add Cess @ 1% on "Z-A"				21.63
	Cost of one soak pit				2940.20
	Say				2940.20
	FOR DPA 30% LESS				**2058.14**

19.31 Providing and fixing S.W. intercepting trap in manholes with stiff mixture of cement mortar 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :

19.31.1 100 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of one no.				
	MATERIAL				
7128	S.W. intercepting trap 100 mm dia	each	1.00	185.00	185.00
9977	Carriage of trap	L.S.	1.04	2.12	2.20
0367	Portland Cement (OPC-43 grade)	tonne	0.0013	5000.00	6.50
2209	Carriage of Cement	tonne	0.0013	145.72	0.19
0983	Fine sand (zone IV)	cum	0.001	900.00	0.90
2261	Carriage of Fine sand (1 part badarpur				
	sand : 2 parts jamuna sand)	cum	0.001	163.93	0.16
1881	Spun yarn	kilogram	0.09	55.00	4.95
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.02	784.00	15.68
0124	Mason (brick layer) 2nd class	day	0.02	714.00	14.28
0114	Beldar	day	0.06	645.00	38.70
0101	Bhisti	day	0.02	714.00	14.28
	TOTAL				282.85 W
	Add 1 % Water charges on "W"				2.83
	TOTAL				285.68 X
	Add GST on "X" (multiplying				
	factor 0.1405)				40.14

	TOTAL				325.81 Y
	Add 15% CPOH on "Y"				48.87
	TOTAL				374.69 Z
	Add Cess @ 1% on "Z"				3.75
	Cost of one no.				378.43
	Say				378.45
	FOR DPA 30% LESS				**264.92**

19.31.2 150 mm dia

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost of one no.				

	MATERIAL				
7129	S.W. intercepting trap 150 mm dia	each	1.00	240.00	**240.00**
9977	Carriage of trap	L.S.	2.08	2.12	**4.41**
0367	Portland Cement (OPC-43 grade)	tonne	0.0019	5000.00	**9.50**
2209	Carriage of Cement	tonne	0.0019	145.72	**0.28**
0983	Fine sand (zone IV)	cum	0.0014	900.00	**1.26**
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.0014	163.93	**0.23**
1881	Spun yarn	kilogram	0.18	55.00	**9.90**
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.03	784.00	**23.52**
0124	Mason (brick layer) 2nd class	day	0.03	714.00	**21.42**
0114	Beldar	day	0.08	645.00	**51.60**
0101	Bhisti	day	0.03	714.00	**21.42**
	TOTAL				**383.54 W**
	Add 1 % Water charges on “W”				**3.84**
	TOTAL				**387.37 X**
	Add GST on “X” (multiplying factor 0.1405)				**54.43**
	TOTAL				**441.80 Y**
	Add 15% CPOH on “Y”				**66.27**
	TOTAL				**508.07 Z**
	Add Cess @ 1% on “Z”				**5.08**
	Cost of one no.				**513.15**
	Say				**513.15**
	FOR DPA 30% LESS				**359.21**

19.32 Providing and laying Non Pressure NP-3 class (Medium duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete

19.32.1 450 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate	Amount
	Detail for 10 metre				
	MATERIALS :				
1728	RCC pipe 450 mm dia NP-3 spigot	metre	10.00	1500.00	**15000.00**
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	3981.36	**398.14**
0367	Portland Cement (OPC-43 grade)	tonne	0.012	5000.00	**60.00**
2209	Carriage of Cement	tonne	0.012	145.72	**1.75**
0983	Fine sand (zone IV)	cum	0.017	900.00	**15.30**
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.017	163.93	**2.79**
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.375	784.00	**294.00**
0124	Mason (brick layer) 2nd class	day	0.375	714.00	**267.75**
0114	Beldar	day	2.41	645.00	**1554.45**

Code	Description	Unit	Quantity	Rate	Amount

0101	Bhisti	day	0.33	**714.00**	235.62
	TOTAL				17829.79 W
	Add 1 % Water charges on "W"				178.30
	TOTAL				18008.09 X
	Add GST on "X" (multiplying factor 0.1405)				2530.14
	TOTAL				20538.23 Y
	Add 15% CPOH on "Y"				3080.73
	TOTAL				23618.96 Z
	Add Cess @ 1% on "Z"				236.19
	Detail of cost for 10 metre				23855.15
	Rate per metre				2385.51
	Say				2385.50
	FOR DPA 30% LESS				**1669.85**

19.32.2 600 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate	Amount
	Detail for 10 metre				
	MATERIALS :				
1729	RCC pipe 600 mm dia NP-3 spigot	metre	10.00	2000.00	20000.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	5972.04	597.20
0367	Portland Cement (OPC-43 grade)	tonne	0.016	5000.00	80.00
2209	Carriage of Cement	tonne	0.016	145.72	2.33
0983	Fine sand (zone IV)	cum	0.022	900.00	19.80
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.022	163.93	3.61
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.46	784.00	360.64

Code	Description	Unit	Quantity	Rate	Amount
0124	Mason (brick layer) 2nd class	day	0.46	714.00	328.44
0114	Beldar	day	1.83	645.00	1180.35
0101	Bhisti	day	0.33	714.00	235.62
	TOTAL				22807.99 W
	Add 1 % Water charges on "W"				228.08
	TOTAL				23036.07 X
	Add GST on "X" (multiplying factor 0.1405)				3236.57
	TOTAL				26272.64 Y
	Add 15% CPOH on "Y"				3940.90
	TOTAL				30213.54 Z
	Add Cess @ 1% on "Z"				302.14
	Detail of cost for 10 metre				30515.67
	Rate per metre				3051.57
	Say				3051.55
	FOR DPA 30% LESS				**2136.09**

19.32.3 900 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate	Amount
	Detail for 10 metre				
	MATERIALS :				
1730	RCC pipe 900 mm dia NP-3 spigot	metre	10.00	3175.00	31750.00
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	0.10	8958.06	895.81
0367	Portland Cement (OPC-43 grade)	tonne	0.025	**5000.00**	125.00
2209	Carriage of Cement	tonne	0.025	**145.72**	3.64

0983	Fine sand (zone IV)	cum	0.033	**900.00**	29.70
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.033	**163.93**	5.41
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.625	**784.00**	490.00
0124	Mason (brick layer) 2nd class	day	0.625	**714.00**	446.25
0114	Beldar	day	3.00	**645.00**	1935.00
0101	Bhisti	day	0.50	**714.00**	357.00
	TOTAL				36037.81 W
	Add 1 % Water charges on "W"				360.38
	TOTAL				36398.19 X
	Add GST on "X" (multiplying factor 0.1405)				5113.95
	TOTAL				41512.13 Y
	Add 15% CPOH on "Y"				6226.82
	TOTAL				47738.95 Z
	Add Cess @ 1% on "Z"				477.39
	Detail of cost for 10 metre				48216.34
	Rate per metre				4821.63
	Say				4821.65
	FOR DPA 30% LESS				**3375.16**

19.32.4	1000 mm dia RCC pipes. (Laying by manual/ machanical means)				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Detail for 10 metre				
	MATERIALS :				
1731	RCC pipe 1000 mm dia NP-3 spigot	metre	10.00	3915.00	**39150.00**
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	0.10	11944.08	**1194.41**
0367	Portland Cement (OPC-43 grade)	tonne	0.028	5000.00	**140.00**
2209	Carriage of Cement	tonne	0.028	145.72	**4.08**
0983	Fine sand (zone IV)	cum	0.037	900.00	**33.30**
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.037	163.93	**6.07**
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.68	784.00	**533.12**
0124	Mason (brick layer) 2nd class	day	0.68	714.00	**485.52**
0114	Beldar	day	4.33	645.00	**2792.85**
0101	Bhisti	day	0.50	714.00	**357.00**
	TOTAL				**44696.34 W**
	Add 1 % Water charges on "W"				**446.96**
	TOTAL				**45143.31 X**
	Add GST on "X" (multiplying factor 0.1405)				**6342.63**
	TOTAL				**51485.94 Y**
	Add 15% CPOH on "Y"				**7722.89**

	TOTAL				**59208.83** Z
	Add Cess @ 1% on "Z"				**592.09**
	Detail of cost for 10 metre				**59800.92**
	Rate per metre				**5980.09**
	Say				**5980.10**
	FOR DPA 30% LESS				**4186.07**

19.32.5	**1200 mm dia RCC pipes. (Laying by manual/ machanical means)**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Detail for 10 metre				
	MATERIALS :				
1732	RCC pipe 1200 mm dia NP-3 spigot	metre	10.0	5200.00	**52000.00**
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	0.10	11944.08	**1194.41**
0367	Portland Cement (OPC-43 grade)	tonne	0.034	5000.00	**170.00**
2209	Carriage of Cement	tonne	0.034	145.72	**4.95**
0983	Fine sand (zone IV)	cum	0.046	900.00	**41.40**
2261	Carriage of Fine sand (1 part badarpur				
	sand : 2 parts jamuna sand)	cum	0.046	163.93	**7.54**
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.795	784.00	**623.28**
0124	Mason (brick layer) 2nd class	day	0.795	714.00	**567.63**

0114	Beldar	day	8.67	645.00	**5592.15**
0101	Bhisti	day	0.67	714.00	**478.38**
	TOTAL				**60679.74 W**
	Add 1 % Water charges on "W"				**606.80**
	TOTAL				**61286.54 X**
	Add GST on "X" (multiplying factor 0.1405)				**8610.76**
	TOTAL				**69897.30 Y**
	Add 15% CPOH on "Y"				**10484.59**
	TOTAL				**80381.89 Z**
	Add Cess @ 1% on "Z"				**803.82**
	Detail of cost for 10 metre				**81185.71**
	Rate per metre				**8118.57**
	Say				**8118.55**
	FOR DPA 30% LESS				**5682.99**

19.32.6 1800 mm dia RCC pipes. (Laying by manual/ machenical means)

Code	Description	Unit	Quantity	Rate	Amount
	Detail for 10 metre				
	MATERIALS :				
1733	RCC pipe 1800 mm dia NP-3 spigot	metre	10.00	9450.00	**94500.00**
2336	Carriage of RCC pipe above 1200 mm dia and upto 1800 mm dia	100 metre	0.10	11944.08	**1194.41**
0367	Portland Cement (OPC-43 grade)	tonne	0.049	5000.00	**245.00**
2209	Carriage of Cement	tonne	0.049	145.72	**7.14**

0983	Fine sand (zone IV)	cum	0.055	900.00	**49.50**
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.055	163.93	**9.02**
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.15	784.00	**901.60**
0124	Mason (brick layer) 2nd class	day	1.15	714.00	**821.10**
0114	Beldar	day	13.00	645.00	**8385.00**
0101	Bhisti	day	1.00	714.00	**714.00**
	TOTAL				**106826.76 W**
	Add 1 % Water charges on "W"				**1068.27**
	TOTAL				**107895.03 X**
	Add GST on "X" (multiplying factor 0.1405)				**15159.25**
	TOTAL				**123054.28 Y**
	Add 15% CPOH on "Y"				**18458.14**
	TOTAL				**141512.43 Z**
	Add Cess @ 1% on "Z"				**1415.12**
	Detail of cost for 10 metre				**142927.55**
	Rate per metre				**14292.76**
	Say				**14292.75**
	FOR DPA 30% LESS				**10004.93**

19.33 Providing and laying Non Pressure NP-4 class (Heavy duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete

19.33.1 450 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate	Amount

	Detail for 10 metre				
	MATERIALS :				
1734	RCC pipe 450 mm dia NP-4 spigot	metre	10.0	1750.00	**17500.00**
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	3981.36	**398.14**
0367	Portland Cement (OPC-43 grade)	tonne	0.012	5000.00	**60.00**
2209	Carriage of Cement	tonne	0.012	145.72	**1.75**
0983	Fine sand (zone IV)	cum	0.017	900.00	**15.30**
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.017	163.93	**2.79**
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.375	784.00	**294.00**
0124	Mason (brick layer) 2nd class	day	0.375	714.00	**267.75**
0114	Beldar	day	2.41	645.00	**1554.45**
0101	Bhisti	day	0.33	714.00	**235.62**
	TOTAL				**20329.79 W**
	Add 1 % Water charges on "W"				**203.30**
	TOTAL				**20533.09 X**
	Add GST on "X" (multiplying factor 0.1405)				**2884.90**
	TOTAL				**23417.99 Y**
	Add 15% CPOH on "Y"				**3512.70**
	TOTAL				**26930.69 Z**
	Add Cess @ 1% on "Z"				**269.31**
	Detail of cost for 10 metre				**27199.99**
	Rate per metre				**2720.00**
	Say				**2720.00**
	FOR DPA 30% LESS				**1904.00**

19.33.2 600 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate	Amount
	Detail for 10 metre				
	MATERIALS :				
1735	RCC pipe 600 mm dia pipe NP-4 spigot	metre	10.0	2350.00	**23500.00**
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	5972.04	**597.20**
0367	Portland Cement (OPC-43 grade)	tonne	0.016	5000.00	**80.00**
2209	Carriage of Cement	tonne	0.016	145.72	**2.33**
0983	Fine sand (zone IV)	cum	0.022	900.00	**19.80**
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.022	163.93	**3.61**
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.46	784.00	**360.64**
0124	Mason (brick layer) 2nd class	day	0.46	714.00	**328.44**
0114	Beldar	day	1.83	645.00	**1180.35**

Code	Description	Unit	Quantity	Rate	Amount
0101	Bhisti	day	0.33	**714.00**	235.62
	TOTAL				26307.99 W
	Add 1 % Water charges on "W"				263.08
	TOTAL				26571.07 X
	Add GST on "X" (multiplying factor 0.1405)				3733.24
	TOTAL				30304.31 Y
	Add 15% CPOH on "Y"				4545.65

Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				34849.95 Z
	Add Cess @ 1% on "Z"				348.50
	Detail of cost for 10 metre				35198.45
	Rate per metre				3519.85
	Say				3519.85
	FOR DPA 30% LESS				**2463.90**

19.33.3 900 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate	Amount
	Detail for 10 metre				
	MATERIALS :				
1736	RCC pipe 900 mm dia pipe NP-4 spigot	metre	10.0	4500.00	45000.00
2331	R.C.C. pipes 900 mm dia	100 metre	0.10	8958.06	895.81
0367	Portland Cement (OPC-43 grade)	tonne	0.025	5000.00	125.00
2209	Carriage of Cement	tonne	0.025	145.72	3.64
0983	Fine sand (zone IV)	cum	0.033	900.00	29.70
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.033	163.93	5.41
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.625	784.00	490.00
0124	Mason (brick layer) 2nd class	day	0.625	714.00	446.25
0114	Beldar	day	3.00	645.00	1935.00
0101	Bhisti	day	0.5	714.00	357.00
	TOTAL				49287.81 W
	Add 1 % Water charges on "W"				492.88
	TOTAL				49780.69 X
	Add GST on "X" (multiplying factor 0.1405)				6994.19
	TOTAL				56774.87 Y
	Add 15% CPOH on "Y"				8516.23
	TOTAL				65291.10 Z
	Add Cess @ 1% on "Z"				652.91
	Detail of cost for 10 metre				65944.02
	Rate per metre				6594.40
	Say				6594.40
	FOR DPA 30% LESS				**4616.08**

19.33.4 1000 mm dia RCC pipes. (Laying by manual/ machanical means)

Code	Description	Unit	Quantity	Rate	Amount
	Detail for 10 metre				
	MATERIALS :				
1737	RCC pipe 1000 mm dia pipe NP-4 spigot	metre	10.0	5570.00	55700.00
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	0.10	11944.08	1194.41

0367	Portland Cement (OPC-43 grade)	tonne	0.028	**5000.00**	140.00
2209	Carriage of Cement	tonne	0.028	**145.72**	4.08
0983	Fine sand (zone IV)	cum	0.037	**900.00**	33.30
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.037	**163.93**	6.07
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.68	**784.00**	533.12
0124	Mason (brick layer) 2nd class	day	0.68	**714.00**	485.52
0114	Beldar	day	4.33	**645.00**	2792.85
0101	Bhisti	day	0.5	**714.00**	357.00
	TOTAL				61246.34 W
	Add 1 % Water charges on "W"				612.46
	TOTAL				61858.81 X
	Add GST on "X" (multiplying factor 0.1405)				8691.16
	TOTAL				70549.97 Y
	Add 15% CPOH on "Y"				10582.50
	TOTAL				81132.46 Z
	Add Cess @ 1% on "Z"				811.32
	Detail of cost for 10 metre				81943.79
	Rate per metre				8194.38
	Say				8194.40

FOR DPA 30% LESS				**5736.08**

19.33.5	**1200 mm dia RCC pipes. (Laying by manual/ machanical means)**				
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	Detail for 10 metre				
	MATERIALS :				
1738	RCC pipe 1200 mm dia pipe NP-4 spigot	metre	10.0	6510.00	**65100.00**
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	0.10	11944.08	**1194.41**
0367	Portland Cement (OPC-43 grade)	tonne	0.034	5000.00	**170.00**
2209	Carriage of Cement	tonne	0.034	145.72	**4.95**
0983	Fine sand (zone IV)	cum	0.046	900.00	**41.40**
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.046	163.93	**7.54**
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.795	784.00	**623.28**
0124	Mason (brick layer) 2nd class	day	0.795	714.00	**567.63**
0114	Beldar	day	8.67	645.00	**5592.15**
0101	Bhisti	day	0.67	714.00	**478.38**

	TOTAL				**73779.74 W**
	Add 1 % Water charges on "W"				**737.80**
	TOTAL				**74517.54 X**
	Add GST on "X" (multiplying factor 0.1405)				**10469.71**
	TOTAL				**84987.26 Y**
	Add 15% CPOH on "Y"				**12748.09**
	TOTAL				**97735.34 Z**
	Add Cess @ 1% on "Z"				**977.35**
	Detail of cost for 10 metre				**98712.70**
	Rate per metre				**9871.27**
	Say				**9871.25**
	FOR DPA 30% LESS				**6909.88**

19.33.6 1800 mm dia RCC pipes. (Laying by manual/ machanical means)

Code	Description	Unit	Quantity	Rate	Amount
	Detail for 10 metre				
	MATERIALS :				
1739	RCC pipe 1800 mm dia pipe NP-4 spigot	metre	10.0	13650.00	**136500.00**
2336	RCC pipe above 1200 mm dia and upto 1800 mm dia	100 metre	0.10	11944.08	**1194.41**
0367	Portland Cement (OPC-43 grade)	tonne	0.049	5000.00	**245.00**
2209	Carriage of Cement	tonne	0.049	145.72	**7.14**
0983	Fine sand (zone IV)	cum	0.055	900.00	**49.50**
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.055	163.93	**9.02**
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.15	784.00	**901.60**
0124	Mason (brick layer) 2nd class	day	1.15	714.00	**821.10**
0114	Beldar	day	13.00	645.00	**8385.00**
0101	Bhisti	day	1.00	714.00	**714.00**
	TOTAL				**148826.76 W**
	Add 1 % Water charges on "W"				**1488.27**
	TOTAL				**150315.03 X**
	Add GST on "X" (multiplying factor 0.1405)				**21119.26**
	TOTAL				**171434.29 Y**
	Add 15% CPOH on "Y"				**25715.14**
	TOTAL				**197149.44 Z**
	Add Cess @ 1% on "Z"				**1971.49**
	Detail of cost for 10 metre				**199120.93**
	Rate per metre				**19912.09**
	Say				**19912.10**
	FOR DPA 30% LESS				**13938.47**

SUB HEAD 20
ALUMINUM WORK

20.1 Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :

20.1.1 For fixed portion

20.1.1.1 Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 40.02 kg				
	MATERIAL				
	(i) External member of the frame				
	(Jindal section no 4605)				
	V = 2x2.40 = 4.80 m				
	H = 2x3x0.95 = 5.70 m				
	= 10.50 m @ 1.653 kg/m = 17.36 kg				
	(ii) Internal member of the frame				
	(Jindal section no 4604)				
	V = 2x2.40 = 4.80 m				
	H = 1x3x0.95 = 2.85 m				
	= 7.65 m @ 1.692 kg/m = 12.94 kg				
	(iii) Aluminium snap beading on both				
	side (Jindal section no 4407)				
	2x6x2 (1.14+0.95) = 50.16 m				
	Snap beading = 50.16 m @ 0.176 kg/m				
	= 8.33 kg				
	(iv) Angle cleat 38x38x4.8 mm				
	50 mm long				
	18x0.05 = 0.900 m @ 0.985 kg/m				
	= 0.89 kg				
	Sub total =40.02 kg				
	Add 5% wastage = 2.00 kg				
	Total = 42.02 kg				
7306	Aluminium T or L sections	kilogram	42.02	190.00	7983.80
	(v) C.P. brass /stainless steel screws				
	20 mm for cleat angle 18x4 = 72 Nos				
0589	Chromium plated Brass screws 20 mm	100 Nos	0.72	160.00	115.20
	(vi)				
7389	Anodising 15 microns on aluminium				
	sections	kilogram	42.02	38.00	1596.76
	(vii)				
9977	Carriage of material	L.S.	52.00	2.12	110.24
	LABOUR				
	For fabrication of frame				
0116	Fitter (grade 1)	day	2.00	784.00	1568.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	714.00	714.00
0114	Beldar	day	1.00	645.00	645.00

0100	Bandhani	day	0.05	**714.00**	35.70
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fastners and sundries				
	L.S. 100.00 2.12 212.00				
	TOTAL				12980.70 W
	Add 1 % Water charges on "W"				129.81
	TOTAL				13110.51 X
	Add GST on "X" (multiplying factor 0.1405)				1842.03
	TOTAL				14952.53 Y
	Add 15% CPOH on "Y"				2242.88
	TOTAL				17195.41 Z
	Add Cess @ 1% on "Z"				171.95
	Cost for 40.02 kg				17367.37
	Cost for 1 kg				433.97
	Say				433.95
	FOR DPA 30% LESS				**303.77**

20.1.1.2 Powder coated aluminium (minimum thickness of powder coating 50 micron)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 40.02 kg MATERIAL (i) External member of the frame (Jindal section no 4605) V = 2x2.40 = 4.80 m H = 2x3x0.95 = 5.70 m = 10.50 m @ 1.653 kg/m = 17.36 kg (ii) Internal member of the frame (Jindal section no 4604) V = 2x2.40 = 4.80 m H = 1x3x0.95 = 2.85 m = 7.65 m @ 1.692 kg/m = 12.94 kg (iii) Aluminium snap beading on both side (Jindal section no 4407) 2x6x2 (1.14+0.95) = 50.16 m Snap beading = 50.16 m @ 0.176 kg/m = 8.33 kg (iv) Angle cleat 38x38x4.8 mm 50 mm long 18x0.05 = 0.900 m @ 0.985 kg/m = 0.89 kg Sub total =40.02 kg Add 5% wastage = 2.00 kg Total = 42.02 kg Aluminium T or L sections (v) C.P. brass /stainless steel screws 20 mm for cleat angle 18x4 = 72 Nos Chromium plated Brass screws 20 mm (vi) Epoxy				
7306			42.02	190.00	**7983.80**
0589	Powder coating 50 microns on aluminium sections	kilogram	0.72	160.00	**115.20**
7392	(vii)	100 Nos	42.02	61.00	**2563.22**
9977	Carriage of material	kilogram L.S.	52.00	2.12	**110.24**

Code	Description	Unit	Quantity	Rate	Amount
	LABOUR				
	For fabrication of frame				

0116	Fitter (grade 1)	day	2.00	**784.00**	1568.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	**714.00**	714.00
0114	Beldar	day	1.00	**645.00**	645.00
0100	Bandhani	day	0.05	**714.00**	35.70
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fastners and sundries	L.S.	100.00	**2.12**	212.00
	TOTAL				13947.16 W
	Add 1 % Water charges on "W"				139.47
	TOTAL				14086.63 X
	Add GST on "X" (multiplying factor 0.1405)				1979.17
	TOTAL				16065.80 Y
	Add 15% CPOH on "Y"				2409.87
	TOTAL				18475.67 Z
	Add Cess @ 1% on "Z"				184.76
	Cost for 40.02 kg				18660.43
	Cost for 1 kg				466.28
	Say				466.30
	FOR DPA 30% LESS				**326.41**

20.1.1.3 Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)

Code	Description	Unit	Quantity	Rate	Amount
7306	Details of cost for 40.02 kg MATERIAL (i) External member of the frame (Jindal section no 4605) V = 2x2.40 = 4.80 m H = 2x3x0.95 = 5.70 m = 10.50 m @ 1.653 kg/m = 17.36 kg (ii) Internal member of the frame (Jindal section no 4604) V = 2x2.40 = 4.80 m H = 1x3x0.95 = 2.85 m = 7.65 m @ 1.692 kg/m = 12.94 kg (iii) Aluminium snap beading on both side (Jindal section no 4407) 2x6x2 (1.14+0.95) = 50.16 m Snap beading = 50.16 m @ 0.176 kg/m = 8.33 kg (iv) Angle cleat 38x38x4.8 mm 50 mm long 18x0.05 = 0.900 m @ 0.985 kg/m = 0.89 kg Sub total =40.02 kg Add 5% wastage = 2.00 kg Total = 42.02 kg Aluminium T or L sections (v) C.P. brass /stainless steel screws 20 mm for cleat angle 18x4 = 72 Nos	kilogram	42.02	190.00	7983.80

Code	Description	Unit	Quantity	Rate	Amount
0589	Chromium plated Brass screws 20 mm	100 Nos	0.72	**160.00**	115.20
	(vi)				
7393	Polyester powder coating 50 microns on aluminium sections	kilogram	42.02	**67.00**	2815.34

	(vii)				
9977	Carriage of material	L.S.	52.00	**2.12**	110.24
	LABOUR				
	For fabrication of frame				
0116	Fitter (grade 1)	day	2.00	**784.00**	1568.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	**714.00**	714.00
0114	Beldar	day	1.00	**645.00**	645.00
0100	Bandhani	day	0.05	**714.00**	35.70
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fastners and sundries	L.S.	100.00	**2.12**	212.00
	TOTAL				14199.28 W
	Add 1 % Water charges on "W"				141.99
	TOTAL				14341.27 X
	Add GST on "X" (multiplying factor 0.1405)				2014.95
	TOTAL				16356.22 Y
	Add 15% CPOH on "Y"				2453.43
	TOTAL				18809.65 Z
	Add Cess @ 1% on "Z"				188.10
	Cost for 40.02 kg				18997.75
	Cost for 1 kg				474.71
	Say				474.70
	FOR DPA 30% LESS				**332.29**

20.1.2 For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)

20.1.2.1 Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 20.21 kg MATERIAL (i) Hanging style (Jindal section no 4524) 1x2.35 = 2.35 m @ 2.53 kg/m = 5.95 kg (ii) Meeting style (Jindal section no 4526) 1x2.35 = 2.35 m @ 2.465 kg/m = 5.79 kg (iii) Top & bottom rail (Jindal section no 4510) 2x0.75 = 1.50 m @ 2.48 kg/m = 3.72 kg (iv) Lock rail (Jindal section no 4524) 1x0.75 = 0.75 m @ 2.53 kg/m = 1.90 kg (v) Glazing plate (Jindal section no 440) on one side of lock rail 1x0.75 = 0.75 m @ 0.459 kg/m = 0.34 kg (vi) Aluminium snap beading (Jindal section no 4497) on both side 2x2 (0.75+1.26) = 8.04 m 2x2 (0.75+0.81) = 6.24 m = 14.28 m @ 0.176 kg/m = 2.51 kg (vii) Aluminium angle cleat 38x38x 4.8 mm 35 mm long 3x4x0.035 = 0.42 m @ 0.985 kg/m				

	= 0.41 kg				
	Sub total = 20.62 kg				
	Add 5% wastage = 1.03 kg				
	Total = 21.65 kg				
7306	Aluminium T or L sections	kilogram	21.65	**190.00**	4113.50
	(viii)				
0689	Anodised Aluminium butt hinges				
	100x75x4 mm	10 Nos	0.40	**393.00**	157.20
	(ix) C.P. brass /stainless steel screws				
	20 mm				
	For cleat 12x4 = 48				
	For cleat 4x8 = 32				
	For glazing plate @ 15 cm centre to				
	centre in 75 cm length 2x6 = 12				
	Total = 92 Nos				
0589	Chromium plated Brass screws 20 mm	100 Nos	0.92	**160.00**	147.20
	(x)				
7389	Anodising 15 microns on aluminium				
	sections	kilogram	21.65	**38.00**	822.70
	(xi)				
9977	Carriage of material	L.S.	31.20	**2.12**	66.14
	(xii) Neoprene/ EPDM gasket in groove				
	of meeting style				
7390	Neoprene/EPDM rubber gasket	metre	2.35	**15.00**	35.25
	LABOUR				
	For fabrication				
0116	Fitter (grade 1)	day	1.00	**784.00**	784.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	**714.00**	714.00
0114	Beldar	day	0.50	**645.00**	322.50
0100	Bandhani	day	0.40	**714.00**	285.60
	For fixing the shutter including hinges :				
0111	Carpenter 1st class	day	0.20	**784.00**	156.80
0114	Beldar	day	0.50	**645.00**	322.50
9999	Labour for making provision for fittings				
	and carriage of screws etc. including				
	sundries	L.S.	50.00	**2.12**	106.00
	TOTAL				8033.39 W
	Add 1 % Water charges on "W"				80.33
	TOTAL				8113.73 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1139.98
	TOTAL				9253.71 Y
	Add 15% CPOH on "Y"				1388.06
	TOTAL				10641.76 Z
	Add Cess @ 1% on "Z"				106.42
	Cost for 20.21 kg				10748.18
	Cost for 1 kg				531.82
	Say				531.80

	FOR DPA 30% LESS				372.26

20.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 20.21 kg				
	MATERIAL				
	(i) Hanging style (Jindal section no 4524)				
	1x2.35 = 2.35 m @ 2.53 kg/m = 5.95 kg				
	(ii) Meeting style (Jindal section no 4526)				
	1x2.35 = 2.35 m @ 2.465 kg/m = 5.79 kg				
	(iii) Top & bottom rail (Jindal section no 4510)				
	2x0.75 = 1.50 m @ 2.48 kg/m = 3.72 kg				
	(iv) Lock rail (Jindal section no 4524)				
	1x0.75 = 0.75 m @ 2.53 kg/m = 1.90 kg				
	(v) Glazing plate (Jindal section no 440) on one side of lock rail				
	1x0.75 = 0.75 m @ 0.459 kg/m = 0.34 kg				
	(vi) Aluminium snap beading (Jindal section no 4497) on both side				
	2x2 (0.75+1.26) = 8.04 m				
	2x2 (0.75+0.81) = 6.24 m				
	= 14.28 m @ 0.176 kg/m = 2.51 kg				
	(vii) Aluminium angle cleat 38x38x 4.8 mm 35 mm long				
	3x4x0.035 = 0.42 m @ 0.985 kg/m = 0.41 kg				
	Sub total = 20.62 kg				
	Add 5% wastage = 1.03 kg				
	Total = 21.65 kg				
7306	Aluminium T or L sections	kilogram	21.65	190.00	**4113.50**
	(viii)				
0689	Anodised Aluminium butt hinges 100x75x4 mm	10 Nos	0.40	393.00	**157.20**
	(ix) C.P. brass /stainless steel screws 20 mm				
	For cleat 12x4 = 48				
	For cleat 4x8 = 32				
	For glazing plate @ 15 cm centre to centre				
	in 75 cm length 2x6 = 12				
	Total = 92 Nos				
0589	Chromium plated Brass screws 20 mm	100 Nos	0.92	160.00	**147.20**
	(x) Epoxy				
7392	Powder coating 50 microns on aluminium sections	kilogram	21.65	61.00	**1320.65**
	(xi)				
9977	Carriage of material	L.S.	31.20	2.12	**66.14**
	(xii) Neoprene/ EPDM rubber gasket in groove of meeting style				
7390	Neoprene/EPDM rubber gasket	metre	2.35	15.00	**35.25**
	LABOUR				

0116	Fitter (grade 1)	day	1.00	784.00	**784.00**
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	714.00	**714.00**
0114	Beldar	day	0.50	645.00	**322.50**
0100	Bandhani	day	0.40	714.00	**285.60**

Code	Description	Unit	Quantity	Rate	Amount
	For fixing the shutter including hinges :				
0111	Carpenter 1st class	day	0.20	**784.00**	156.80
0114	Beldar	day	0.50	**645.00**	322.50
9999	Labour for making provision for fittings and carriage of screws etc. including sundries	L.S.	50.00	**2.12**	106.00
	TOTAL				8531.34 W
	Add 1 % Water charges on "W"				85.31
	TOTAL				8616.66 X
	Add GST on "X" (multiplying factor 0.1405)				1210.64
	TOTAL				9827.30 Y
	Add 15% CPOH on "Y"				1474.09
	TOTAL				11301.39 Z
	Add Cess @ 1% on "Z"				113.01
	Cost for 20.21 kg				11414.41
	Cost for 1 kg				564.79
	Say				564.80
	FOR DPA 30% LESS				**395.36**

20.1.2.3 Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 20.21 kg MATERIAL (i) Hanging style (Jindal section no 4524) 1x2.35 = 2.35 m @ 2.53 kg/m = 5.95 kg (ii) Meeting style (Jindal section no 4526) 1x2.35 = 2.35 m @ 2.465 kg/m = 5.79 kg (iii) Top & bottom rail (Jindal section no 4510) 2x0.75 = 1.50 m @ 2.48 kg/m = 3.72 kg (iv) Lock rail (Jindal section no 4524) 1x0.75 = 0.75 m @ 2.53 kg/m = 1.90 kg (v) Glazing plate (Jindal section no 440) on one side of lock rail 1x0.75 = 0.75 m @ 0.459 kg/m = 0.34 kg (vi) Aluminium snap beading (Jindal section no 4497) on both side 2x2 (0.75+1.26) = 8.04 m 2x2 (0.75+0.81) = 6.24 m = 14.28 m @ 0.176 kg/m = 2.51 kg (vii) Aluminium angle cleat 38x38x 4.8 mm 35 mm long 3x4x0.035 = 0.42 m @ 0.985 kg/m = 0.41 kg Sub total = 20.62 kg Add 5% wastage = 1.03 kg Total = 21.65 kg				
7306	Aluminium T or L sections (viii)	kilogram	21.65	190.00	4113.50
0689	Anodised Aluminium butt hinges				

	100x75x4 mm	10 Nos	0.40	**393.00**	157.20
	(ix) C.P. brass /stainless steel screws 20 mm For cleat 12x4 = 48 For cleat 4x8 = 32 For glazing plate @ 15 cm centre to centre in 75 cm length 2x6 = 12 Total = 92 Nos				
0589	Chromium plated Brass screws 20 mm	100 Nos	0.92	**160.00**	147.20
	(x)				
7393	Polyester powder coating 50 microns on aluminium sections	kilogram	21.65	**67.00**	1450.55
	(xi)				
9977	Carriage of material	L.S.	31.20	**2.12**	66.14
	(xii) Neoprene/ EPDM rubber gasket in groove of meeting style				
7390	Neoprene/EPDM rubber gasket	metre	2.35	**15.00**	35.25
	LABOUR				
	For fabrication				
0116	Fitter (grade 1)	day	1.00	**784.00**	784.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	**714.00**	714.00
0114	Beldar	day	0.50	**645.00**	322.50
0100	Bandhani	day	0.40	**714.00**	285.60
	For fixing the shutter including hinges :				
0111	Carpenter 1st class	day	0.20	**784.00**	156.80
114	Beldar	day	0.50	**645.00**	322.50
9999	Labour for making provision for fittings and carriage of screws etc. including sundries	L.S.	50.00	**2.12**	106.00
	TOTAL				8661.24 W
	Add 1 % Water charges on "W"				86.61
	TOTAL				8747.86 X
	Add GST on "X" (multiplying factor 0.1405)				1229.07
	TOTAL				9976.93 Y
	Add 15% CPOH on "Y"				1496.54
	TOTAL				11473.47 Z
	Add Cess @ 1% on "Z"				114.73
	Cost for 20.21 kg				11588.20
	Cost for 1 kg				573.39
	Say				573.40
	FOR DPA 30% LESS				**401.38**

20.2 Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.

20.2.1 Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7 sqm				
	MATERIAL				
	12 mm thick particle board = 7.00 sqm				
	Add 5% wastage = 0.35 sqm				
	Total = 7.35 sqm				
7477	Prelaminated particle board with one side decorative and other side balancing lamination, flat pressed 3 layer & graded (medium density) Grade I, Type II conforming to IS : 12823 (exterior grade) 12 mm thick	sqm	7.35	500.00	**3675.00**
9977	Carriage of particle board	L.S.	13.65	2.12	**28.94**
9999	Sundries & screws etc.	L.S.	27.30	2.12	**57.88**
	LABOUR				
0112	Carpenter 2nd class	day	0.90	714.00	**642.60**
0114	Beldar	day	1.00	645.00	**645.00**
	TOTAL				**5049.41 W**
	Add 1 % Water charges on "W"				**50.49**
	TOTAL				**5099.91 X**
	Add GST on "X" (multiplying factor 0.1405)				**716.54**
	TOTAL				**5816.45 Y**
	Add 15% CPOH on "Y"				**872.47**
	TOTAL				**6688.91 Z**
	Add Cess @ 1% on "Z"				**66.89**
	Cost for 7 sqm				**6755.80**
	Cost for 1 sqm				**965.11**
	Say				**965.10**
	FOR DPA 30% LESS				**675.57**

20.2.2 Pre-laminated particle board with decorative lamination on both sides

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7 sqm MATERIAL 12 mm thick particle board = 7.00 sqm Add 5% wastage = 0.35 sqm Total = 7.35 sqm				
7480 9977 9999 0112	Prelaminated particle board with both sides decorative lamination, flat pressed 3 layer & graded (medium density) Grade I, Type II conforming to IS : 12823 (exterior grade) 12 mm thick Carriage of particle board Sundries & screws etc. LABOUR Carpenter 2nd class	sqm L.S. L.S. day	7.35 13.65 27.30 0.90	490.00 2.12 2.12 714.00	**3601.50** **28.94** **57.88** **642.60**
0114	Beldar	day	1.00	**645.00**	645.00
	TOTAL				4975.91 W

	Add 1 % Water charges on "W"				49.76
	TOTAL				5025.67 X
	Add GST on "X" (multiplying factor 0.1405)				706.11
	TOTAL				5731.78 Y
	Add 15% CPOH on "Y"				859.77
	TOTAL				6591.55 Z
	Add Cess @ 1% on "Z"				65.92
	Cost for 7 sqm				6657.46
	Cost for 1 sqm				951.07
	Say				951.05
	FOR DPA 30% LESS				**665.74**

20.3 Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):

20.3.1 With float glass panes of 4.0 mm thickness (weight not less than 10kg/sqm)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 sqm				
	MATERIAL				
	Float Glass panes 4.0 mm thick = 1.00 sqm				
	Add for wastage & breakage @ 10% = 0.10 sqm				
	Total =1.10 sqm				
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	1.10	309.00	339.90
9977	Carriage of glass	L.S.	2.42	2.12	5.13
7390	Neoprene/EPDM rubber gasket	metre	6.00	15.00	90.00
	LABOUR				
0112	Carpenter 2nd class	day	0.23	714.00	164.22
0114	Beldar	day	0.23	645.00	148.35
9988	Sundries and carriage of gasket	L.S.	6.89	2.12	14.61
	TOTAL				762.21 W
	Add 1 % Water charges on "W"				7.62
	TOTAL				769.83 X
	Add GST on "X" (multiplying factor 0.1405)				108.16
	TOTAL				877.99 Y
	Add 15% CPOH on "Y"				131.70
	TOTAL				1009.69 Z
	Add Cess @ 1% on "Z"				10.10
	Cost for 1 sqm				1019.79
	Say				1019.80
	FOR DPA 30% LESS				**713.86**

20.3.2 With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 sqm				
	MATERIAL				
	Glass panes 5.50 mm thick = 1.00 sqm				
	Add for wastage & breakage @ 10%				

	= 0.10 sqm				
	Total =1.00 sqm				
2407	Float glass sheet of nominal thickness 5 mm (weight not less than 12.50 kg/sqm)	sqm	1.10	515.00	**566.50**
9977	Carriage of glass	L.S.	3.33	2.12	**7.06**
7390	Neoprene/EPDM rubber gasket	metre	6.00	15.00	**90.00**
	LABOUR				
0112	Carpenter 2nd class	day	0.23	714.00	**164.22**
0114	Beldar	day	0.23	645.00	**148.35**
9988	Sundries and carriage of gasket	L.S.	6.89	2.12	**14.61**
	TOTAL				**990.74 W**
	Add 1 % Water charges on "W"				**9.91**
	TOTAL				**1000.64 X**
	Add GST on "X" (multiplying factor 0.1405)				**140.59**
	TOTAL				**1141.23 Y**
	Add 15% CPOH on "Y"				**171.19**
	TOTAL				**1312.42 Z**
	Add Cess @ 1% on "Z"				**13.12**
	Cost for 1 sqm				**1325.54**
	Say				**1325.55**
	FOR DPA 30% LESS				**927.89**

20.3.3 With float glass panes of 8 mm thickness (weight not less than 20 kg/sqm)

Code	Description	Unit	Quantity	Rate	Amount
2408 9977 7390 0112 0114	Details of cost for 1.00 sqm MATERIAL Float Glass panes 8.0 mm thick = 1.00 sqm Add for wastage & breakage @ 10% = 0.10 sqm Total =1.10 sqm Float glass sheet of nominal thickness 8 mm.(weight not less than 20.00 kg/sqm). Carriage of glass Neoprene/EPDM rubber gasket LABOUR Carpenter 2nd class Beldar	sqm L.S. metre day day	1.10 4.84 6.00 0.23 0.23	628.00 2.12 15.00 714.00 645.00	**690.80** **10.26** **90.00** **164.22** **148.35**

Code	Description	Unit	Quantity	Rate	Amount
9988	Sundries and carriage of gasket	L.S.	6.89	**2.12**	14.61
	TOTAL				1118.24 W
	Add 1 % Water charges on "W"				11.18
	TOTAL				1129.42 X
	Add GST on "X" (multiplying factor 0.1405)				158.68
	TOTAL				1288.10 Y
	Add 15% CPOH on "Y"				193.22
	TOTAL				1481.32 Z
	Add Cess @ 1% on "Z"				14.81
	Cost for 1 sqm				1496.13
	Say				1496.15
	FOR DPA 30% LESS				**1047.31**

20.4 Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.

20.4.1 With stainless steel cover plate minimum 1.25 mm thickness

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one number				
	MATERIAL				
7394	Double action hydraulic floor spring				
	with stainless steel cover plate	each	1.00	1500.00	1500.00
9977	CARRIAGE	L.S.	13.00	2.12	27.56
9999	Sundries and screws	L.S.	26.00	2.12	55.12
	Cement concrete 1:2:4				
4.1.3	Rate as per item no. 4.1.3 of				
	SH : concrete work	cum	0.002	7365.15	14.73 A
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.08	784.00	62.72
0124	Mason (brick layer) 2nd class	day	0.08	714.00	57.12
0112	Carpenter 2nd class	day	0.01	714.00	7.14
0114	Beldar	day	0.17	645.00	109.65
	TOTAL				1834.04 W
	Add 1 % Water charges on "W-A"				18.19
	TOTAL				1852.23 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				258.17
	TOTAL				2110.40 Y
	Add 15% CPOH on "Y-A"				314.35
	TOTAL				2424.75 Z
	Add Cess @ 1% on "Z-A"				24.10
	Cost for each				2448.85
	Say				2448.85
	FOR DPA 30% LESS				**1714.20**

20.4.2 With brass cover plate minimum 1.25 mm thickness

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one number				
	MATERIAL				
7396	Double action hydraulic floor spring				
	with brass cover plate	each	1.00	1620.00	1620.00
9977	CARRIAGE	L.S.	13.00	2.12	27.56
9999	Sundries and screws	L.S.	26.00	2.12	55.12
	Cement concrete 1:2:4				
4.1.3	Rate as per item no. 4.1.3 of				
	SH : concrete work	cum	0.002	7365.15	14.73 A
	LABOUR				
	For cutting hole and making it good				
0123	Mason (brick layer) 1st class	day	0.08	784.00	62.72
0124	Mason (brick layer) 2nd class	day	0.08	714.00	57.12
0112	Carpenter 2nd class	day	0.01	714.00	7.14
0114	Beldar	day	0.17	645.00	109.65

	TOTAL				1954.04 W
	Add 1 % Water charges on "W-A"				19.39
	TOTAL				1973.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				275.20
	TOTAL				2248.63 Y
	Add 15% CPOH on "Y-A"				335.09
	TOTAL				2583.72 Z
	Add Cess @ 1% on "Z-A"				25.69
	Cost for each				2609.41
	Say				2609.40
	FOR DPA 30% LESS				**1826.58**

20.5 Providing and fixing powder coated aluminium work (minimum thickness of powder coating 50 micron) consisting of tee/ angle sections, of approved make conforming to IS : 733 in frames of false ceiling including aluminium angle cleats with necessary C.P. brass/ stainless steel sunk screws, aluminium perimeter angles fixed to wall with stainless steel rawl plugs @ 450 mm centre to centre and fixing the frame work to G.I. level adjusting hangers 6 mm dia. with necessary cadmium plated machine screws all complete as per approved architectural drawings and direction of the Engineer-in-charge (level adjusting hangers, ceiling cleats and expansion hold fasteners to be paid for separately).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 6.35 kg (2.40x2.40 = 5.76 sqm) MATERIAL (i) Aluminium main runner - assuming Tee of size 35x23.5x1.5 mm @ 600 mm centre to centre 3x2.40 m = 7.20 m Extra for light fittings 2x1.20 m = 2.40 m Total= 9.60 m @ 0.247 kg/m = 2.370 kg				
	Aluminium cross runner - assuming Tee of size 35x23.5x1.5 mm @ 600 mm centre to centre 3x4x0.60 m = 7.20 m (-) 2x0.30 = (-) 0.60 m Total=6.60 m @ 0.247 kg/m = 1.630 kg Perimeter angle aluminium - assuming size 25.4x25.4x1.63 mm @ 600 mm centre to centre 4x2.40 m = 9.60 m @ 0.213 kg/m = 2.045 kg (ii) CLEATS Aluminium angle- assuming size 25.4x25.4x1.63 mm Extra for light fittings =3x2x2 = 12.00 Corner = 4.00 For joining runners = 42.00 Total = 58.00x0.025 = 1.45 m @ 0.213 kg/m = 0.309 kg Sub total = 2.370 + 1.630 + 2.045 + 0.309 =6.354 kg Add 5% wastage = 0.318 kg Total = 6.672 kg				

7306	Aluminium T or L sections	kilogram	6.672	**190.00**	1267.68
	(iii) C.P. brass/ stainless steel screws 20 mm for angle cleats				
0589	Chromium plated Brass screws 20 mm	100 Nos	0.0116	**160.00**	1.86
	(iv) Rawl plug for fixing perimeter angles				
7048	Rawl plug 50 mm (designation 10 no.)	each	24.00	**22.00**	528.00
	Epoxy				
7392	Powder coating 50 microns on aluminium sections	kilogram	6.67	**61.00**	406.87
	(vi)				
9977	Carriage of material	L.S.	13.00	**2.12**	27.56
	(vii)				
9999	C.P. brass screws for fixing frame with suspenders	L.S.	13.00	**2.12**	27.56
	LABOUR				
	For fabrication and erection				
0111	Carpenter 1st class	day	0.64	**784.00**	501.76
0114	Beldar	day	0.64	**645.00**	412.80
9999	Scaffolding and sundries	L.S.	13.00	**2.12**	27.56
	TOTAL				3201.65 W
	Add 1 % Water charges on "W"				32.02
	TOTAL				3233.66 X
	Add GST on "X" (multiplying factor 0.1405)				454.33
	TOTAL				3687.99 Y
	Add 15% CPOH on "Y"				553.20
	TOTAL				4241.19 Z
	Add Cess @ 1% on "Z"				42.41
	Cost for 6.35 kg				4283.60
	Cost for 1 kg				674.58
	Say				674.60
	FOR DPA 30% LESS				**472.22**

20.6 Providing and fixing 6 mm dia. G.I. level adjusting hangers (upto 1200mm length), fixed to roof slabs by means of ceiling cleats made out of G.I. flat 40x3mm size 60 mm long and stainless steel expandable dash fastener of 12.5 mm dia and 50 mm long, complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 23 nos (hangers in 2.40 mx 2.40 m = 5.76 sqm)one number				
	MATERIAL				
	6 mm dia G.I. adjustable hangers including clips (upto 1.20 metre length).				
	For light fitting 2x4 = 8.00				
	For runners = 15.00				
	Total = 23.00				
7395	6 mm dia. G.I. adjustable hangers including clips (upto 1.2 m length)	each	23.00	20.00	**460.00**
	Ceiling cleats				
	G.I. flat 40X3 mm 60mm long				
	23x0.06 = 1.38 m @ 0.95kg/m = 1.31kg				

	Add 5% wastage = 0.07 kg				
	Total = 1.38 kg say 0.014 q				
0992	Galvanised steel plain sheets	quintal	0.014	5000.00	**70.00**
7388	Dash hold fastener 12.5 mm dia, 40 mm long with 6 mm dia bolt	each	23.00	10.00	**230.00**
9977	Carriage of materials	L.S.	5.20	2.12	**11.02**
	LABOUR				
0111	Carpenter 1st class	day	0.35	784.00	**274.40**
0114	Beldar	day	0.27	645.00	**174.15**
	TOTAL				**1219.57 W**
	Add 1 % Water charges on "W"				**12.20**
	TOTAL				**1231.77 X**
	Add GST on "X" (multiplying factor 0.1405)				**173.06**
	TOTAL				**1404.83 Y**
	Add 15% CPOH on "Y"				**210.73**
	TOTAL				**1615.56 Z**
	Add Cess @ 1% on "Z"				**16.16**
	Cost for 23 hangers				**1631.71**
	Cost for one hanger				**70.94**
	Say				**70.95**
	FOR DPA 30% LESS				**49.67**

20.7 Providing and fixing machine moulded aluminium covering of approved pattern & design, made out of machine cut aluminium sheet and machine holed for receiving dash fastener, over expansion joints on vertical surfaces/ceiling floors, the fixing on plate in one row on one side of joint only shall be done with stainless steel dash fasteners of 8 mm dia and 75 mm long bolt including providing aluminium washers 2 mm thick & 15 mm dia , at a staggered pitch of 200mm centre to centre including drilling holes in the receiving surface and providing expandable plastic sleeves in holes etc. complete as per direction of Engineer- in-

20.7.1 Anodised aluminium sheet 2.5mm thick (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7.00 kg				
	MATERIAL				
	Anodised aluminium sheet 2.5 mm thick, 170 mm wide				
	5.88 m x0.17 m = 1.00 sqm @ 7.00 kg/ sqm = 7.00 kg				
	Add 5% wastage = 0.35 kg				
	Total = 7.35 kg				
2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	7.35	240.00	1764.00
7389	Anodising 15 microns on aluminium sections	kilogram	7.35	38.00	279.30
7347	Cadmium plated full threaded steel screws (30x4 mm dia.)	100 Nos	0.30	27.00	8.10
7348	Aluminium washer 2 mm thick 15 mm dia	100 Nos	0.30	10.00	3.00
8776	Stainless steel dash fastener of 8 mm dia and 75 mm long bolt	each	30.00	17.00	510.00
9977	Carriage of materials	L.S.	6.50	2.12	13.78

	LABOUR				
0112	Carpenter 2nd class	day	0.392	714.00	279.89
0114	Beldar	day	0.392	645.00	252.84
9999	Sundries including machine work	L.S.	21.45	2.12	45.47
	TOTAL				3156.38 W
	Add 1 % Water charges on "W"				31.56
	TOTAL				3187.95 X
	Add GST on "X" (multiplying factor 0.1405)				447.91
	TOTAL				3635.85 Y
	Add 15% CPOH on "Y"				545.38
	TOTAL				4181.23 Z
	Add Cess @ 1% on "Z"				41.81
	Cost for 7.00 kg				4223.04
	Cost for 1 kg				603.29
	Say				603.30
	FOR DPA 30% LESS				**422.31**

20.7.2 Powder coated aluminium sheet 2.5mm thick (minimum thickness of powder coating 50 micron)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 7.00 kg MATERIAL Anodised aluminium sheet 2.5 mm thick, 170 mm wide 5.88 m x0.17 m = 1.00 sqm @ 7.00 kg/sqm = 7.00 kg Add 5% wastage = 0.35 kg Total = 7.35 kg				
2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	7.35	240.00	1764.00
7392	Powder coating 50 microns on aluminium sections	kilogram	7.35	**61.00**	448.35
7347	Cadmium plated full threaded steel screws (30x4 mm dia.)	100 Nos	0.30	**27.00**	8.10
7348	Aluminium washer 2 mm thick 15 mm dia	100 Nos	0.30	**10.00**	3.00
8776	Stainless steel dash fastener of 8 mm dia and 75 mm long bolt	each	30.00	**17.00**	510.00
9977	Carriage of materials	L.S.	6.50	**2.12**	13.78
	LABOUR				
0112	Carpenter 2nd class	day	0.392	**714.00**	279.89
0114	Beldar	day	0.392	**645.00**	252.84
9999	Sundries including machine work	L.S.	21.45	**2.12**	45.47
	TOTAL				3325.43 W
	Add 1 % Water charges on "W"				33.25
	TOTAL				3358.69 X
	Add GST on "X" (multiplying factor 0.1405)				471.90
	TOTAL				3830.58 Y
	Add 15% CPOH on "Y"				574.59
	TOTAL				4405.17 Z
	Add Cess @ 1% on "Z"				44.05
	Cost for 7.00 kg				4449.22
	Cost for 1 kg				635.60
	Say				635.60
	FOR DPA 30% LESS				**444.92**

20.8 Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.

20.8.1 Upto 5mm depth and 5 mm width

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 metre				
	MATERIAL				
8646	Silicon sealant	cartridge	0.087	112.00	**9.74**
	(i/c 5% wastage)				
8654	Masking tape	metre	2.00	2.18	**4.36**
9999	Sundries & profile	L.S.	2.60	2.12	**5.51**
9999	LABOUR	L.S.	20.80	2.12	**44.10**
	TOTAL				**63.71 W**
	Add 1 % Water charges on "W"				**0.64**
	TOTAL				**64.35 X**
	Add GST on "X" (multiplying factor 0.1405)				**9.04**
	TOTAL				**73.39 Y**
	Add 15% CPOH on "Y"				**11.01**
	TOTAL				**84.40 Z**
	Add Cess @ 1% on "Z"				**0.84**
	Cost for 1 metre				**85.24**
	Say				**85.25**
	FOR DPA 30% LESS				**59.68**

20.9 Extra for applying additional anodic coating AC 25 instead of AC 15 to aluminium extruded sections.

20.9.1 For fixed portion

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 41.09 kg				
	Difference in cost of				
7391	Anodising 25 microns on aluminium sections	kilogram	41.09	48.00	**1972.32**
7389	Anodising 15 microns on aluminium sections	kilogram	-41.09	38.00	**-1561.42**
	TOTAL				**410.90 W**
	Add 1 % Water charges on "W"				**4.11**
	TOTAL				**415.01 X**
	Add GST on "X" (multiplying factor 0.1405)				**58.31**
	TOTAL				**473.32 Y**
	Add 15% CPOH on "Y"				**71.00**
	TOTAL				**544.32 Z**
	Add Cess @ 1% on "Z"				**5.44**
	Cost for 41.09 kg				**549.76**
	Cost for 1 kg				**13.38**
	Say				**13.40**
	FOR DPA 30% LESS				**9.38**

20.9.2 For shutters of doors, windows & ventilators

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 21.65 kg				
	Difference in cost of				

7391	Anodising 25 microns on aluminium sections	kilogram	21.65	48.00	**1039.20**
7389	Anodising 15 microns on aluminium sections	kilogram	-21.65	38.00	**-822.70**
	TOTAL				**216.50 W**
	Add 1 % Water charges on "W"				**2.17**
	TOTAL				**218.67 X**
	Add GST on "X" (multiplying factor 0.1405)				**30.72**
	TOTAL				**249.39 Y**
	Add 15% CPOH on "Y"				**37.41**
	TOTAL				**286.80 Z**
	Add Cess @ 1% on "Z"				**2.87**
	Cost for 21.65kg				**289.66**
	Cost for 1 kg				**13.38**
	Say				**13.40**
	FOR DPA 30% LESS				**9.38**

20.10 Providing and fixing double glazed hermetically sealed glazing in aluminium windows, ventilators and partition etc. with 6 mm thick clear float glass both side, having 12 mm air gap, including providing EPDM gasket, perforated aluminium spacers, desiccants, sealant (Both primary and secondary sealant) etc. as per specifications, drawings and direction of Engineer-in-charge complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 sqm				
	MATERIAL				
	Hermetically sealled double glazed unit made with 6mm thick clear float glass both side having 12 mm air gap = 1.00 sqm.				
	Add for wastage & breakage @ 10% = 0.10 sqm				
	Total = 1.10 sqm				
8648	Hermetically sealed double glazed unit made with 6 mm thick clear float glass both side having 12 mm air gap	sqm	1.10	2200.00	2420.00
9977	Carriage of glass	L.S.	6.66	2.12	14.12
7390	Neoprene/EPDM rubber gasket	metre	6.00	15.00	90.00
	LABOUR				
0112	Glazier / Carpenter 2nd class	day	0.23	714.00	164.22
0114	Beldar	day	0.46	645.00	296.70
9988	Sundries and carriage of gasket	L.S.	6.89	2.12	14.61
	TOTAL				2999.65 W
	Add 1 % Water charges on "W"				30.00
	TOTAL				3029.64 X
	Add GST on "X" (multiplying factor 0.1405)				425.66
	TOTAL				3455.31 Y

	Add 15% CPOH on "Y"				518.30
	TOTAL				3973.60 Z
	Add Cess @ 1% on "Z"				39.74
	Cost for 1 sqm				4013.34
	Say				4013.35
	FOR DPA 30% LESS				**2809.35**

20.11 Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete.

20.11.1 205 X 19 mm

Code	Description	Unit	Quantity	Rate	Amount
8649 8647 9977	Details of cost for 10 nos. MATERIAL Stainless steel (SS 304 grade) adjustable friction window stay 205 x 19 mm Stainless steel screws 30 mm x4 mm CARRIAGE	each 100 nos L.S.	10.00 0.40 2.73	197.80 35.84 2.12	1978.00 14.34 5.79
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	LABOUR				
0112	Carpenter 2nd class	day	0.14	**714.00**	99.96
0114	Beldar	day	0.14	**645.00**	90.30
	TOTAL				2188.38 W
	Add 1 % Water charges on "W"				21.88
	TOTAL				2210.27 X
	Add GST on "X" (multiplying factor 0.1405)				310.54
	TOTAL				2520.81 Y
	Add 15% CPOH on "Y"				378.12
	TOTAL				2898.93 Z
	Add Cess @ 1% on "Z"				28.99
	Cost for 10 nos				2927.92
	Cost for each				292.79
	Say				292.80
	FOR DPA 30% LESS				**204.96**

20.11.2 255 X 19 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 nos.				
	MATERIAL				
8650	Stainless steel (SS 304 grade)				
	adjustable 255 x 19mm	each	10.00	225.00	2250.00
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	35.84	14.34
9977	CARRIAGE	L.S.	2.73	2.12	5.79
	LABOUR				
0112	Carpenter 2nd class	day	0.14	714.00	99.96
0114	Beldar	day	0.14	645.00	90.30
	TOTAL				2460.38 W
	Add 1 % Water charges on "W"				24.60
	TOTAL				2484.99 X
	Add GST on "X" (multiplying factor 0.1405)				349.14
	TOTAL				2834.13 Y
	Add 15% CPOH on "Y"				425.12
	TOTAL				3259.25 Z

	Add Cess @ 1% on "Z"				32.59
	Cost for 10 nos				3291.84
	Cost for each				329.18
	Say				329.20
	FOR DPA 30% LESS				**230.44**

20.11.3 355 X 19 mm

Code	Description	Unit	Quantity	Rate	Amount
8651	Details of cost for 10 nos. MATERIAL				
8647	Stainless steel (SS 304 grade) adjustable friction window stay 355 x 19 mm	each	10.00	195.00	1950.00
9977	Stainless steel screws 30 mm x4 mm	100 nos	0.40	35.84	14.34
	CARRIAGE	L.S.	2.73	2.12	5.79

Code	Description	Unit	Quantity	Rate	Amount
	LABOUR				
0112	Carpenter 2nd class	day	0.14	**714.00**	99.96
0114	Beldar	day	0.14	**645.00**	90.30
	TOTAL				2160.38 W
	Add 1 % Water charges on "W"				21.60
	TOTAL				2181.99 X
	Add GST on "X" (multiplying factor 0.1405)				306.57
	TOTAL				2488.56 Y
	Add 15% CPOH on "Y"				373.28
	TOTAL				2861.84 Z
	Add Cess @ 1% on "Z"				28.62
	Cost for 10 nos				2890.46
	Cost for each				289.05
	Say				289.05
	FOR DPA 30% LESS				**202.34**

20.11.4 510 X 19 mm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 nos.				
	MATERIAL				
8652	Stainless steel (SS 304 grade) adjustable friction window stay 510 x 19 mm	each	10.00	535.00	5350.00
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	35.84	14.34
9977	CARRIAGE	L.S.	2.73	2.12	5.79
	LABOUR				
0112	Carpenter 2nd class	day	0.14	714.00	99.96
0114	Beldar	day	0.14	645.00	90.30
	TOTAL				5560.38 W
	Add 1 % Water charges on "W"				55.60
	TOTAL				5615.99 X
	Add GST on "X" (multiplying factor 0.1405)				789.05
	TOTAL				6405.03 Y
	Add 15% CPOH on "Y"				960.76
	TOTAL				7365.79 Z
	Add Cess @ 1% on "Z"				73.66
	Cost for 10 nos				7439.45
	Cost for each				743.94

	Say				743.95
	FOR DPA 30% LESS				**520.77**

20.11.5 710 X 19 mm

Code	Description	Unit	Quantity	Rate	Amount
8653 8647 9977	Details of cost for 10 nos. MATERIAL Stainless steel (SS 304 grade) adjustable friction window stay 710 x 19 mm Stainless steel screws 30 mm x4 mm CARRIAGE	each 100 nos L.S.	10.00 0.40 2.73	925.00 35.84 2.12	9250.00 14.34 5.79
Code	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	LABOUR				
0112	Carpenter 2nd class	day	0.14	**714.00**	99.96
0114	Beldar	day	0.14	**645.00**	90.30
	TOTAL				9460.38 W
	Add 1 % Water charges on "W"				94.60
	TOTAL				9554.99 X
	Add GST on "X" (multiplying factor 0.1405)				1342.48
	TOTAL				10897.46 Y
	Add 15% CPOH on "Y"				1634.62
	TOTAL				12532.08 Z
	Add Cess @ 1% on "Z"				125.32
	Cost for 10 nos				12657.40
	Cost for each				1265.74
	Say				1265.75
	FOR DPA 30% LESS				**886.03**

20.12 Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer- in-Charge.
20.12.1 Anodized (AC 15) aluminium tubular handle bar

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 nos handle bar.				
	MATERIAL				
	10x22/7 x 1/4 (0.032x0.032 - 0.026 x 0.026) x 2.10 = 0.0057 cum				
	0.0057 cum @ 2710 kg/ cum = 15.56kg				
	Add 5% wastage 0.78 kg				
	Total = 16.34 kg				
7306	Aluminium T or L sections	kilogram	16.34	190.00	**3104.60**
7389	Anodising 15 microns on aluminium sections	kilogram	16.34	38.00	**620.92**
9977	Carriage of material	L.S.	4.42	2.12	**9.37**
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.08	35.84	**2.87**
	LABOUR				
0111	Carpenter 1st class	day	0.125	784.00	**98.00**
	TOTAL				**3835.76 W**
	Add 1 % Water charges on "W"				**38.36**
	TOTAL				**3874.12 X**
	Add GST on "X" (multiplying factor 0.1405)				**544.31**
	TOTAL				**4418.43 Y**

	Add 15% CPOH on "Y"				**662.76**
	TOTAL				**5081.19 Z**
	Add Cess @ 1% on "Z"				**50.81**
	Cost of 10 nos				**5132.00**
	Cost of 1 no				**513.20**
	Say				**513.20**
	FOR DPA 30% LESS				**359.24**

20.12.2 Powder coated minimum thickness 50 micron aluminium tubular handle bar

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 nos handle bar.				
	MATERIAL				
	10x22/7 x 1/4 (0.032x0.032 - 0.026 x				
	0.026) x 2.10 = 0.0057 cum				
	0.0057 cum @ 2710 kg/ cum = 15.56kg				
	Add 5% wastage 0.78 kg				
	Total = 16.34 kg				
7306	Aluminium T or L sections	kilogram	16.34	190.00	**3104.60**
	Epoxy				
7392	Powder coating 50 microns on				
	aluminium sections	kilogram	16.34	61.00	**996.74**
9977	Carriage of material	L.S.	4.42	2.12	**9.37**
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.08	35.84	**2.87**
	LABOUR				
0111	Carpenter 1st class	day	0.125	784.00	**98.00**
	TOTAL				**4211.58 W**
	Add 1 % Water charges on "W"				**42.12**
	TOTAL				**4253.69 X**
	Add GST on "X" (multiplying				
	factor 0.1405)				**597.64**
	TOTAL				**4851.34 Y**
	Add 15% CPOH on "Y"				**727.70**
	TOTAL				**5579.04 Z**
	Add Cess @ 1% on "Z"				**55.79**
	Cost of 10 nos				**5634.83**
	Cost of 1 no				**563.48**
	Say				**563.50**
	FOR DPA 30% LESS				**394.45**

20.12.3 Polyester powder coated minimum thickness 50 micron aluminium tubular handle bar

Code	Description	Unit	Quantity	Rate	Amount

7306 7393 9977 8647	Details of cost for 10 nos handle bar. MATERIAL 10x22/7 x 1/4 (0.032x0.032 -0.026 x 0.026) x 2.10 = 0.0057 cum 0.0057 cum @ 2710 kg/ cum = 15.56kg Add 5% wastage 0.78 kg Total = 16.34 kg Aluminium T or L sections Polyester powder coating 50 microns on aluminium sections Carriage of material Stainless steel screws 30 mm x4 mm	kilogram kilogram L.S. 100 nos	16.34 16.34 4.42 0.08	190.00 67.00 2.12 35.84	**3104.60** **1094.78** **9.37** **2.87**

Code	Description	Unit	Quantity	Rate	Amount
	LABOUR				
0111	Carpenter 1st class	day	0.125	**784.00**	98.00
	TOTAL				4309.62 W
	Add 1 % Water charges on "W"				43.10
	TOTAL				4352.71 X
	Add GST on "X" (multiplying factor 0.1405)				611.56
	TOTAL				4964.27 Y
	Add 15% CPOH on "Y"				744.64
	TOTAL				5708.91 Z
	Add Cess @ 1% on "Z"				57.09
	Cost of 10 nos				5766.00
	Cost of 1 no				576.60
	Say				576.60
	FOR DPA 30% LESS				**403.62**

20.13 Providing and fixing Brass 100mm mortice latch and lock with 6 levers without pair of handles (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 1 nos.				
	MATERIAL				
7001	Brass 100mm mortice latch and lock with 6 levers without pair of handles	each	1.00	195.00	195.00
	LABOUR				
0111	Carpenter 1st class	day	0.17	784.00	133.28
9999	Sundry and screws	L.S.	3.64	2.12	7.72
	TOTAL				336.00 W
	Add 1 % Water charges on "W"				3.36
	TOTAL				339.36 X
	Add GST on "X" (multiplying factor 0.1405)				47.68
	TOTAL				387.04 Y
	Add 15% CPOH on "Y"				58.06
	TOTAL				445.09 Z
	Add Cess @ 1% on "Z"				4.45
	Cost of 1 no				449.54
	Say				449.55
	FOR DPA 30% LESS				**314.69**

20.14 Providing and fixing anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868. Minimum anodic coating of grade AC 15) sub frame work for windows and ventilators with extruded built up standard tubular sections of approved make conforming to IS: 733 and IS: 1285, fixed with dash fastener of required dia and size (Dash fastener to be paid for separately).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 4.082kg MATERIAL				
	Aluminium Section				
	(i) External member of the frame				
	(Jindal section no TU/ 3644)				
	V = 2x2.00 = 4.00 m				
	H = 2x1.20 = 2.40 m				
	Total= 6.40 m @ 0.607 kg/m = 3.885kg				
	Angle cleat 38x38x4.8 mm 50 mm long				
	4x0.05 = 0.200 m @ 0.985 kg/m				
	= 0.197 kg				
	sub total = 4.082kg.				
	Add 5% wastage = 0.204kg				
	Total = 4.286kg				
7306	Aluminium T or L sections	kilogram	4.286	**190.00**	814.34
0589	Chromium plated Brass screws 20 mm	100 Nos	0.08	**160.00**	12.80
7389	Anodising 15 microns on aluminium sections	kilogram	4.286	**38.00**	162.87
9977	Carriage of material	L.S.	5.20	**2.12**	11.02
	LABOUR				
	For fabrication of frame				
0116	Fitter (grade 1)	day	0.04	**784.00**	31.36
0139	Skilled Beldar (for floor rubbing etc.)	day	0.04	**714.00**	28.56
0114	Beldar	day	0.02	**645.00**	12.90
0100	Bandhani	day	0.01	**714.00**	7.14
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fastners & sundries	L.S.	5.20	**2.12**	11.02
	TOTAL				1092.02 W
	Add 1 % Water charges on "W"				10.92
	TOTAL				1102.94 X
	Add GST on "X" (multiplying factor 0.1405)				154.96
	TOTAL				1257.90 Y
	Add 15% CPOH on "Y"				188.68
	TOTAL				1446.58 Z
	Add Cess @ 1% on "Z"				14.47
	Cost for 4.082 kg				1461.05
	Cost for 1 kg				357.92
	Say				357.90
	FOR DPA 30% LESS				**250.53**

20.15 Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete.

20.15.1 Anodized (AC 15) aluminium

Code	Description	Unit	Quantity	Rate	Amount

8660 8666	Detail of cost for 10 nos. MATERIAL Aluminium casement window fastener (Anodised AC 15) Stainless steel screws 25 mm x4 mm	each 100 Nos	10.00 0.40	48.00 41.80	**480.00** **16.72**

Code	Description	Unit	Quantity	Rate	Amount
	LABOUR				
0111	Carpenter 1st class	day	0.06	**784.00**	47.04
9977	Carriage of materials	L.S.	2.73	**2.12**	5.79
	TOTAL				549.55 W
	Add 1 % Water charges on "W"				5.50
	TOTAL				555.04 X
	Add GST on "X" (multiplying factor 0.1405)				77.98
	TOTAL				633.03 Y
	Add 15% CPOH on "Y"				94.95
	TOTAL				727.98 Z
	Add Cess @ 1% on "Z"				7.28
	Cost of 10 nos				735.26
	Cost of 1 nos				73.53
	Say				73.55
	FOR DPA 30% LESS				**51.49**

20.15.2 Powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 nos.				
	MATERIAL				
8661	Aluminium casement window fastener (powder coated)	each	10.00	52.64	526.40
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	41.80	16.72
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	TOTAL				595.95 W
	Add 1 % Water charges on "W"				5.96
	TOTAL				601.91 X
	Add GST on "X" (multiplying factor 0.1405)				84.57
	TOTAL				686.48 Y
	Add 15% CPOH on "Y"				102.97
	TOTAL				789.45 Z
	Add Cess @ 1% on "Z"				7.89
	Cost of 10 nos				797.34
	Cost of 1 nos				79.73
	Say				79.75
	FOR DPA 30% LESS				**55.83**

20.15.3 Polyester powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate	Amount
8662 8666	Detail of cost for 10 nos. MATERIAL Aluminium casement window fastener (polyester powder coated) Stainless steel screws 25 mm x4 mm	each 100 Nos	10.00 0.40	51.52 41.80	515.20 16.72

Code	Description	Unit	Quantity	Rate	Amount
	LABOUR				

0111	Carpenter 1st class	day	0.06	**784.00**	47.04
9977	Carriage of materials	L.S.	2.73	**2.12**	5.79
	TOTAL				584.75 W
	Add 1 % Water charges on "W"				5.85
	TOTAL				590.60 X
	Add GST on "X" (multiplying factor 0.1405)				82.98
	TOTAL				673.57 Y
	Add 15% CPOH on "Y"				101.04
	TOTAL				774.61 Z
	Add Cess @ 1% on "Z"				7.75
	Cost of 10 nos				782.36
	Cost of 1 nos				78.24
	Say				78.25
	FOR DPA 30% LESS				**54.78**

20.16 Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-in-charge

20.16.1 Anodized (AC 15) aluminium

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 nos.				
	MATERIAL				
8663	Aluminium round shape handle (anodised AC 15) outer dia 100mm	each	10.00	59.36	593.60
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	41.80	16.72
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	TOTAL				663.15 W
	Add 1 % Water charges on "W"				6.63
	TOTAL				669.78 X
	Add GST on "X" (multiplying factor 0.1405)				94.10
	TOTAL				763.88 Y
	Add 15% CPOH on "Y"				114.58
	TOTAL				878.47 Z
	Add Cess @ 1% on "Z"				8.78
	Cost of 10 nos				887.25
	Cost of 1 nos				88.73
	Say				88.75
	FOR DPA 30% LESS				**62.13**

20.16.2 Powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate	Amount
8664 8666 0111	Aluminium round shape handle (powder coated) outer dia 100 mm Stainless steel screws 25 mm x4 mm LABOUR Carpenter 1st class	each 100 Nos day	10.00 0.40 0.06	60.00 41.80 784.00	600.00 16.72 47.04

Code	Description	Unit	Quantity	Rate	Amount
9977	Carriage of materials	L.S.	2.73	**2.12**	5.79
	TOTAL				669.55 W
	Add 1 % Water charges on "W"				6.70
	TOTAL				676.24 X
	Add GST on "X" (multiplying				

	factor 0.1405)				95.01
	TOTAL				771.26 Y
	Add 15% CPOH on "Y"				115.69
	TOTAL				886.94 Z
	Add Cess @ 1% on "Z"				8.87
	Cost of 10 nos				895.81
	Cost of 1 nos				89.58
	Say				89.60
	FOR DPA 30% LESS				**62.72**

20.16.3 Polyester powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 nos.				
	MATERIAL				
8665	Aluminium round shape handle				
	(polyester powder coated) outer dia				
	100 mm	each	10.00	62.00	620.00
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	41.80	16.72
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	TOTAL				689.55 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.44 X
	Add GST on "X" (multiplying				
	factor 0.1405)				97.85
	TOTAL				794.29 Y
	Add 15% CPOH on "Y"				119.14
	TOTAL				913.44 Z
	Add Cess @ 1% on "Z"				9.13
	Cost of 10 nos				922.57
	Cost of 1 nos				92.26
	Say				92.25
	FOR DPA 30% LESS				**64.58**

20.17 Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer- in-charge. (Only weight of grill to be measured for payment).

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10.00 kg MATERIAL				
	Anodised aluminium grill = 10.00 kg				
	Add 20% wastage = 2 kg = 12 kg				
8774	Aluminium Grill	kg	12.00	**279.00**	3348.00
9977	Carriage of materials	L.S.	11.00	**2.12**	23.32
	LABOUR				
	for fixing				
0116	Fitter (grade 1)	day	0.50	**784.00**	392.00
0139	Skilled Beldar (for floor rubbing etc.)	day	0.25	**714.00**	178.50
0114	Beldar	day	0.25	**645.00**	161.25
0100	Bandhani	day	0.05	**714.00**	35.70

9999	Sundries	L.S.	25.00	**2.12**	53.00
	TOTAL				4191.77 W
	Add 1 % Water charges on "W"				41.92
	TOTAL				4233.69 X
	Add GST on "X" (multiplying factor 0.1405)				594.83
	TOTAL				4828.52 Y
	Add 15% CPOH on "Y"				724.28
	TOTAL				5552.80 Z
	Add Cess @ 1% on "Z"				55.53
	Cost for 10.00 kg				5608.33
	Cost for 1 kg				560.83
	Say				560.85
	FOR DPA 30% LESS				**392.60**

20.19 Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & double acting hydraulic floor spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately).

Code	Description	Unit	Quantity	Rate	Amount
8778	Details of cost for 2.10 sqm MATERIAL	sqm L.S.	2.31	1750.00	**4042.50**
9977	Glass= 2.10 Sqm.	L.S.	8.19	2.12	**17.36**
9999	Add Wastage @ 10% = 0.21 sqm. Total= 2.31 sqm.	each	5.33	2.12	**11.30**
21.4.1	Toughened glass 12 mm thickness Carriage of	day day	1.00	2448.85	**2448.85 A**
0119	glass panes and other materials		0.90	714.00	**642.60**
0114	Methylated spirit		0.90	645.00	**580.50**
	Stainless steel pivot and double acting hydraulic floor spring type fixing				
	Rate as per Item No.21.4.1 of SH:Aluminium Work				
	LABOUR				
	Glazier Beldar				

Code	Description	Unit	Quantity	Rate	Amount
9999	Sundries,sush rog cotton etc.	L.S.	1.13	**2.12**	2.40
	TOTAL				7745.51 W
	Add 1 % Water charges on "W-A"				52.97
	TOTAL				7798.47 X
	Add GST on "X-A" (multiplying factor 0.1405)				751.62
	TOTAL				8550.10 Y
	Add 15% CPOH on "Y-A"				915.19
	TOTAL				9465.28 Z
	Add Cess @ 1% on "Z-A"				70.16
	Cost for 2.10 sqm				9535.45
	Cost for 1 sqm				4540.69
	Say				4540.70
	FOR DPA 30% LESS				**3178.49**

20.20 Filling the gap in between aluminium/ stone/ wood frame and adjacent RCC/ Brick/ Stone/ wood/ Ceramic/ Gypsum work by providing weather/structural non sag elastomeric PU sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete, complying to ASTM C920, DIN 18540-F & ISO 11600

20.20.1 Upto 5 mm depth and 5 mm width

Code	Description	Unit	Quantity	Rate	Amount

	Details of cost for 10m length width 5mm & depth 5mm				
	MATERIAL				
2604	Weather/structural non sag elastomeric PU sealant (600ml Sausage) for joints in RCC/Brick/ Stone/ wood/ Ceramic/ Gypsum/Alluminium work complying to ASTM C920, DIN 18540-F & ISO 11600 incl all taxes	each	1.00	543.00	543.00
8654	Masking tape	metre	20.00	2.18	43.60
9999	Sundries, including charges of Sealant gun machine, dhoti etc	L.S.	26.00	2.12	55.12
9977	Carriage of material	L.S.	8.40	2.12	17.81
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.40	784.00	313.60
	TOTAL				973.13 W
	Add 1 % Water charges on "W"				9.73
	TOTAL				982.86 X
	Add GST on "X" (multiplying factor 0.1405)				138.09
	TOTAL				1120.95 Y
	Add 15% CPOH on "Y"				168.14
	TOTAL				1289.09 Z
	Add Cess @ 1% on "Z"				12.89
	Cost of 10 metre				1301.98
	Cost per metre				130.20
	Say				130.20
	FOR DPA 30% LESS				**91.14**

20.20.2 Upto 10 mm depth and 10 mm width

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10m length, width 10mm & depth 10mm				
	MATERIAL				
2604	Weather/structural non sag elastomeric PU sealant (600ml Sausage) for joints in RCC/Brick/ Stone/ wood/ Ceramic/ Gypsum/Alluminium work complying to ASTM C920, DIN 18540-F & ISO 11600 incl all taxes	each	1.50	543.00	**814.50**
8654	Masking tape	metre	20.00	2.18	**43.60**
9999	Sundries, including charges of Sealant gun machine, dhoti etc	L.S.	26.00	2.12	**55.12**
9977	Carriage of material	L.S.	8.40	2.12	**17.81**
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	**392.00**
	TOTAL				**1323.03 W**
	Add 1 % Water charges on "W"				**13.23**
	TOTAL				**1336.26 X**
	Add GST on "X" (multiplying factor 0.1405)				**187.74**
	TOTAL				**1524.00 Y**

	Add 15% CPOH on "Y"				228.60
	TOTAL				1752.60 Z
	Add Cess @ 1% on "Z"				17.53
	Cost of 10 metre				1770.13
	Cost per metre				177.01
	Say				177.00
	FOR DPA 30% LESS				**123.9**

20.20.3 Upto 20 mm depth and 20 mm width

Code	Description	Unit	Quantity	Rate	Amount
2604 8654 2630 9999 9977	Details of cost for 10m length, width 20mm & depth 20mm MATERIAL Weather/structural non sag elastomeric PU sealant (600ml Sausage) for joints in RCC/Brick/ Stone/ wood/ Ceramic/ Gypsum/Alluminium work complying to ASTM C920, DIN 18540-F & ISO 11600 incl all taxes Masking tape Baker rod Sundries, including charges of Sealant gun machine, dhoti etc Carriage of material	each metre metre L.S. L.S.	3.00 20.00 10.00 26.00 8.40	543.00 2.18 6.00 2.12 2.12	**1629.00** **43.60** **60.00** **55.12** **17.81**

Code	Description	Unit	Quantity	Rate	Amount
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.75	784.00	**588.00**
	TOTAL				**2393.53 W**
	Add 1 % Water charges on "W"				**23.94**
	TOTAL				**2417.46 X**
	Add GST on "X" (multiplying factor 0.1405)				**339.65**
	TOTAL				**2757.12 Y**
	Add 15% CPOH on "Y"				**413.57**
	TOTAL				**3170.68 Z**
	Add Cess @ 1% on "Z"				**31.71**
	Cost of 10 metre				**3202.39**
	Cost per metre				**320.24**
	Say				**320.25**
	FOR DPA 30% LESS				**224.18**

SUB HEAD 21
WATER PROOFING

21.1 Providing and laying integral cement based treatment for water proofing on horizontal surface at all depth below ground level for under ground structures as directed by Engineer-in-Charge and consisting of :
(i) Ist layer of 22 mm to 25 mm thick approved and specified rough stone slab over a 25 mm thick base of cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound conforming to IS:2645 in the recommended proportion over the leveling course (leveling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound.
(ii) 2nd layer of 25 mm thick cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound in recommended proportions.
(iii) Finishing top with stone aggregate of 10 mm to 12 mm nominal size spreading @ 8 cudm/sqm thoroughly embedded in the 2nd layer.
21.1.1 Using rough kota stone.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10.00 sqm				
	MATERIAL				
	Ist layer				
	Cement mortar 1:3 for fixing of stone				
	10x0.025 = 0.25 cum				
3.8	Rate as per Item Number 3.8 of				
	SH: MORTARS	cum	0.25	5024.15	1256.04
	Kota stone slab = 10 sqm				
	Wastage @ 10% = 1 sqm				
	Total = 11 sqm				
1169	Kotastone slab 25mm thick				
	(rough cheseled)	sqm	11.00	250.00	2750.00
	Cartage 11x0.025 @ 2330 kg/m3				
	= 0.64 t				
2216	Carriage of Stone blocks white &				
	red sand stone & kota stone slab	tonne	0.64	145.72	93.26
	Cement mortar 1:3				
	10x0.025 = 0.25 cum				
	Wastage @ 12% = 0.03 cum				
	Total = 0.28 cum				
3.8	Rate as per Item No.3.8 of				
	SH: MORTARS	cum	0.28	5024.15	1406.76
	for slurry Bed				
	2x10.00 @ 2kg/m3 = 40.00 kg				
	Joints				
	4x3.7x0.02x0.037 = 0.011 cum				
	25x0.6x0.02x0.037 = 0.011 cum				
	= 0.022 cum @ 1440 kg/cum				
	Total = 71.88 kg or 0. 72 t				
0367	Portland Cement (OPC-43 grade)	tonne	0.072	5000.00	360.00
2209	Carriage of Cement	tonne	0.072	145.72	10.49
	Mortar = 0.25 + 0.28 = 0.53 cum				
	Cement in 0.53 cum @ 5.1 q/cum				
	= 2.7 quintal				
	Cement in slurry = 0.73 quintal				
	Total = 3.43 quintal @ 1 kg for 50 kg				
	of cement i.e. 6.86 kg				
1213	Water proofing materials	kilogram	6.86	35.00	240.10

0296	Stone Aggregate (Single size) :				
	12.5 mm nominal size	cum	0.08	**1350.00**	108.00
	@ 8 cudm/sqm 1x10.3x8x1/1000				
	= 0.08 cum				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	0.08	**163.93**	13.11
	Labour for base mortar & kota stone				
	laying i/c slurry job				
0125	Mason (for plain stone work) 2nd class	day	1.20	**714.00**	856.80
0114	Beldar	day	1.00	**645.00**	645.00
0115	Coolie	day	1.00	**645.00**	645.00
	LABOUR				
	Labour for top layer & spreading				
	stone grit				
0125	Mason (for plain stone work) 2nd class	day	1.08	**714.00**	771.12
0114	Beldar	day	1.08	**645.00**	696.60
0101	Bhisti	day	0.45	**714.00**	321.30
9999	Sundries	L.S.	6.24	**2.12**	13.23
	TOTAL				10186.82 W
	Add 1 % Water charges on "W"				101.87
	TOTAL				10288.68 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1445.56
	TOTAL				11734.24 Y
	Add 15% CPOH on "Y"				1760.14
	TOTAL				13494.38 Z
	Add Cess @ 1% on "Z"				134.94
	Cost for 10.00 sqm				13629.32
	Cost for 1 sqm				1362.93
	Say				1362.95
	FOR DPA 30% LESS				**954.07**

21.2 Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 22 mm to 25 mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20 mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 cement : 3 coarse sand) 20 mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge :

21.2.1 Using rough Kota stone

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10.00 sqm MATERIAL Ist layer Kota stone slab = 10 sqm Wastage @ 10% = 1 sqm Total = 11 sqm				

1169	Kotastone slab 25mm thick (rough cheseled) Cartage 11x0.025 @ 2330 kg/m3 = 0.64t Carriage of Stone blocks white & red sand stone & kota stone slab Cement slurry for jointing 6x3.70 = 22.20 m 7x2.78 = 19.46 m =41.66x0.025x0.012 = 0.013 cum Cement slurry for filling 20 mm gap 10x0.02 = 0.200 cum = 0.213 cum @ 1440 kg/cum = 306.70 kg or 0.307 t Portland Cement (OPC-43 grade) Carriage of Cement Cement plaster 1:3 with neat cement punning Rate as per item no 13.9.2 of SH : Finishing Water proofing material Cement slurry = 0.31 t = 310 kg Cement plaster 1:3 @ 13.62 q/100sqm = 136.20 kg Total = 446.20 kg @ 1 kg for 50 kg of cement i.e. 8.90 kg Water proofing materials LABOUR Fixing of Kota stone and applying cement slurry. Mason (for plain stone work) 2nd class Beldar Coolie Sundries and scaffolding TOTAL Add 1 % Water charges on "W-A" TOTAL Add GST on "X-A" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y-A" TOTAL Add Cess @ 1% on "Z-A" Cost for 10.00sqm Cost for 1 sqm Say				
		sqm	11.00	250.00	**2750.00**
2216					
		tonne	0.64	145.72	**93.26**
0367		tonne	0.31	5000.00	**1550.00**
2209		tonne	0.31	145.72	**45.17**
13.9.2					
		sqm	10.00	507.85	**5078.50 A**
1213		kilogram	8.90	35.00	**311.50**
0125		day	3.00	714.00	**2142.00**
0114		day	3.00	645.00	**1935.00**
0115		day	1.00	645.00	**645.00**
9999		L.S.	18.20	2.12	**38.58**
					14589.02 W
					95.11
					14684.12 X
					1349.59
					16033.71 Y
					1643.28
					17677.00 Z
					125.98
					17802.98
					1780.30
					1780.30
	FOR DPA 30% LESS				**1246.21**

21.3 Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of:
(i) Ist course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.

(ii) IInd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface.
(iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area.
(iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/ sqm).

Details of cost for 10 sqm MATERIAL
Cement slurry @ 4.4 kg/sqm
= 44.00 kg or 0.044 t
Portland Cement (OPC-43 grade) Carriage of Cement
MATERIAL
Cement plaster 1:3 (20 mm thick) Rate as per Item No.3.8 of
SH: MORTARS LABOUR
Mason (average) Coolie
Bhisti
Scafolding and sundries
Blown type petroleum bitumen of penetration 85/25 of approved quality
= 10x1.70= 17 kg = 0.017 t
Carriage of Tar bitumen
Polyvinyle chloride sheet 400 micron thick
CARRIAGE
Water proofing materials
@ 1 kg per 50 kg of cement used Cement slurry = 44 kg
Cement plaster 1:3
10x(13.62xl00)/100= 136.2 kg
Total = 180.2 kg/50 = 3.60 kg LABOUR
Painter Beldar Mistry Sundries TOTAL
Add 1 % Water charges on "W" TOTAL
Add GST on "X" (multiplying factor 0.1405)
TOTAL
Add 15% CPOH on "Y" TOTAL
Add Cess @ 1% on "Z" Cost for 10 sqm
Cost for 1 sqm Say

0367	tonne	0.044	5000.00	**220.00**
2209	tonne	0.044	145.72	**6.41**
3.8	cum	0.224	5024.15	**1125.41**
0155	day	0.94	749.00	**704.06**
0115	day	1.02	645.00	**657.90**
0101	day	1.10	714.00	**785.40**
9999	L.S.	12.61	2.12	**26.73**
0313	tonne	0.017	34790.00	**591.43**
2211	tonne	0.017	163.93	**2.79**
3002	sqm	10.00	45.00	**450.00**
9977	L.S.	13.00	2.12	**27.56**
1213	kilogram	3.60	35.00	**126.00**
0131	day	0.20	714.00	**142.80**

0114		day	1.33	645.00	**857.85**
0130		day	0.06	784.00	**47.04**
9999		L.S.	7.28	2.12	**15.43**
					5786.81 W
					57.87
					5844.68 X
					821.18
					6665.86 Y
					999.88
					7665.74 Z
					76.66
					7742.40
					774.24
					774.25
	FOR DPA 30% LESS				**541.98**

21.4 Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete :

21.4.1 Serrated with central bulb (225 mm wide, 8-11 mm thick)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
7427	Water stops Serrated with central bulb (225 mm wide, 8-11 mm thick)	metre	100.00	200.00	**20000.00**
	LABOUR				
0114	Beldar	day	2.00	645.00	**1290.00**
9999	Sundries & wire etc.	L.S.	26.00	2.12	**55.12**
	TOTAL				**21345.12 W**
	Add 1 % Water charges on "W"				**213.45**
	TOTAL				**21558.57 X**
	Add GST on "X" (multiplying factor 0.1405)				**3028.98**
	TOTAL				**24587.55 Y**
	Add 15% CPOH on "Y"				**3688.13**
	TOTAL				**28275.68 Z**
	Add Cess @ 1% on "Z"				**282.76**
	Cost for 100 metres				**28558.44**
	Cost for 1 metre				**285.58**
	Say				**285.60**
	FOR DPA 30% LESS				**199.92**

21.4.2 Dumb bell with central bulb (180 mm wide, 8 mm thick)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
7428	Water stops Dumb bell with central bulb	metre	100.00	160.00	**16000.00**
	LABOUR				
0114	Beldar	day	2.00	645.00	**1290.00**
9999	Sundries & wire etc.	L.S.	26.00	2.12	**55.12**
	TOTAL				**17345.12 W**
	Add 1 % Water charges on "W"				**173.45**
	TOTAL				**17518.57 X**

Code	Description	Unit	Quantity	Rate	Amount
	Add GST on "X" (multiplying factor 0.1405)				**2461.36**
	TOTAL				**19979.93 Y**
	Add 15% CPOH on "Y"				**2996.99**
	TOTAL				**22976.92 Z**
	Add Cess @ 1% on "Z"				**229.77**
	Cost for 100 metres				**23206.69**
	Cost for 1 metre				**232.07**
	Say				**232.05**
	FOR DPA 30% LESS				**162.44**

21.4.3 Kickers (320 mm wide, 5 mm thick)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 metres				
	MATERIAL				
7429	Kickers	metre	100.00	160.00	16000.00
	LABOUR				
0114	Beldar	day	2.00	645.00	1290.00
9999	Sundries & wire etc.	L.S.	26.00	2.12	55.12
	TOTAL				17345.12 W
	Add 1 % Water charges on "W"				173.45
	TOTAL				17518.57 X
	Add GST on "X" (multiplying factor 0.1405)				2461.36
	TOTAL				19979.93 Y
	Add 15% CPOH on "Y"				2996.99
	TOTAL				22976.92 Z
	Add Cess @ 1% on "Z"				229.77
	Cost for 100 metres				23206.69
	Cost for 1 metre				232.07
	Say				232.05
	FOR DPA 30% LESS				**162.44**

21.5 Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying :
(a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours.
(b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours.
The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of

Code	Description	Unit	Quantity	Rate	Amount
0367	Details of cost for 10 sqm	tonne tonne	0.012	5000.00	60.00
2209	Cement 10x(0.488+0.242) = 7.30 kg	kilogram	0.012	145.72	1.75
8501	Sealing fillets 10x0.5 kg / sqm = 5.00 kg Total = 12.30	day day day	5.00	160.00	800.00
0155	kg = 0.012 tonne Portland Cement (OPC-43 grade)		2.00	749.00	1498.00
0114	Carriage of Cement		2.00	645.00	1290.00
0101	Bonding material 1.6 kgx30x2 = 96 kg Bitumen		0.25	714.00	178.50
	(blown/residual type) 10x(0.25+0.126) = 3.79 kg				
	Sealing fillets 10x0.10 kg / sqm				
	= 1.00 kg				
	Wastage @ 5% on 4.79 kg = 0.24 kg Total = 5.03 kg				
	Say 5.00 kg				
	Polymer modified cementation coating LABOUR				
	Mason (average) Beldar				
	Bhisti				

Code	Description	Unit	Quantity		Amount
9999	Sundries, brushes etc	L.S.	15.60		33.07
	TOTAL				3861.32 W
	Add 1 % Water charges on "W"				38.61
	TOTAL				3899.93 X
	Add GST on "X" (multiplying factor 0.1405)				547.94
	TOTAL				4447.87 Y
	Add 15% CPOH on "Y"				667.18
	TOTAL				5115.06 Z
	Add Cess @ 1% on "Z"				51.15
	Cost for 10 sqm				5166.21
	Cost for 1 sqm				516.62
	Say				516.60
	FOR DPA 30% LESS				**361.62**

21.6 Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying:
(a) after surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm.
(b) laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm.
(c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/ sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and tucked into groove in parapet all around.
(d) fourth and final layer of brick tiling with cement mortar (which will be paid for separately.
For the purpose of measurement the entire treated surface will be measured.

Code	Description	Unit	Quantity	Rate	Amount
0367 2209 8501 8502 0155 0114	Details of cost for 10 sqm MATERIAL Cement 10x(1.289+0.488) = 17.77 kg Sealing fillets @ 10% = 1.77 kg Total = 19.54kg = 0.020 tonne Portland Cement (OPC-43 grade) Carriage of Cement Bonding material 1.6 kgx30x2 = 96 kg Bitumen (blown/residual type) 10x(0.253+0.67) = 9.23 kg Wastage @ 5% = 0.46 kg Total = 9.69 kg Polymer modified cementation coating Fibre Glass cloth = 10.00 sqm Wastage @ 10 % = 1.00 sqm Total = 11.00 sqm Fibre glass cloth LABOUR Mason (average) Beldar	tonne tonne kilogram sqm day day	0.02 0.02 9.69 11.00 2.00 1.00	5000.00 145.72 160.00 32.00 749.00 645.00	**100.00** **2.91** **1550.40** **352.00** **1498.00** **645.00**

Code	Description	Unit	Quantity	Rate	Amount
0101	Bhisti	day	0.25	714.00	178.50
9999	Sundries, brushes etc	L.S.	23.40	2.12	49.61
	TOTAL				4376.42 W
	Add 1 % Water charges on "W"				43.76
	TOTAL				4420.19 X
	Add GST on "X" (multiplying factor 0.1405)				621.04
	TOTAL				5041.22 Y
	Add 15% CPOH on "Y"				756.18
	TOTAL				5797.41 Z
	Add Cess @ 1% on "Z"				57.97
	Cost for 10 sqm				5855.38

	Cost for 1 sqm				585.54
	Say				585.55
	FOR DPA 30% LESS				409.89

21.7 Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations:

(a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment.

(b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.

(c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge.

(d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep.

(e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test.“All above operations to be done in order and as directed and specified by the Engineer-in-Charge :

21.7.1 With average thickness of 120 mm and minimum thickness at khurra as

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 10 sqm				
	i) Cement slury				
0367	Portland Cement (OPC-43 grade)	tonne	0.0275	5000.00	137.50
	ii) Cement mortar 1:5 (1 cement:				
	5 coarsesand)				
3.10	Rate as per Item No.3.10 of SH:Mortars	cum	0.224	3995.00	894.88
	iii) Roof treatment with brick bat and				
	cement mortar				
	MATERIAL				
0285	Brick Aggregate (Single size) : 63 mm	cum	0.94	650.00	611.00
2260	Carriage of Brick aggregate	cum	0.94	178.19	167.50
	Cement mortar 1:5				
3.10	Rate as per Item No.3.10 of SH:Mortars	cum	0.50	3995.00	1997.50
	LABOUR				
0114	Beldar	day	1.75	645.00	1128.75
0101	Bhisti	day	0.28	714.00	199.92
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0128	Mate	day	0.04	714.00	28.56
	Extra labour for ramming				
0114	Beldar	day	0.25	645.00	161.25
9999	Sundries	L.S.	13.65	2.12	28.94
	iv) Cement slury				
0367	Portland Cement (OPC-43 grade)	tonne	0.0275	5000.00	137.50
0114	Beldar	day	0.20	645.00	129.00

13.6.1	v) 20 mm cement plaster 1:4 (1 cement : 4 coarse sand) Rate as per item no 13.6.1 of SH : Finishing	sqm	10.00	421.40	4214.00 A
	vi) Water proofing compound vi) Water proofing compound 27.50+27.50+69.40+124.00 = 248.40 kg @ 1 kg per bag of cement				
1213	Water proofing materials	kilogram	5.00	35.00	175.00
	Extra for making chequers for 10 sqm				
7233	Fibre glass tissue reinforcement Type II Grade I	sqm	10.50	75.00	787.50
0124	Mason (brick layer) 2nd class	day	0.36	714.00	257.04
0114	Beldar	day	0.36	645.00	232.20
9999	Chequer plate	L.S.	13.65	2.12	28.94
	Add labour for laying 20 mm bed mortar				
0124	Mason (brick layer) 2nd class	day	0.54	714.00	385.56
0114	Beldar	day	0.54	645.00	348.30
0101	Bhisti	day	0.45	714.00	321.30
	TOTAL				12447.03 W
	Add 1 % Water charges on "W-A"				82.33
	TOTAL				12529.36 X
	Add GST on "X-A" (multiplying factor 0.1405)				1168.31
	TOTAL				13697.67 Y
	Add 15% CPOH on "Y-A"				1422.55
	TOTAL				15120.22 Z
	Add Cess @ 1% on "Z-A"				109.06
	Cost for 10 sqm				15229.29
	Cost for one sqm				1522.93
	Say				1522.95
	FOR DPA 30% LESS				1066.07

21.8 Providing and laying four courses water proofing treatment with bitumen felt over roofs consisting of first and third courses of blown bitumen 85/25 or 90/ 15 conforming to IS : 702 applied hot @ 1.45 Kg per square metre of area for each course, second course of roofing felt type 3 grade-I (hessian based self finished bitumen felt) and fourth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per square metre, including preparation of surface but excluding grading complete with :

21.8.1 Bitumen felt (hessian base) type 3 grade I conforming to IS : 1322

Code	Description	Unit	Quantity	Rate	Amount
0313	Detail of cost for 30 sqm Blown or / and residual bitumen applied hot =	tonne	0.087	34790.00	3026.73
0322	2x1.45x30 = 87 kg Blown type petroleum bitumen of penetration 85/25 of approved quality Hession felt type	sqm	33.00	70.00	2310.00
1177	3 Grade I (hessian base self finished bitumen felt) = 30sqm + Add for over lapping @ 10%	cum	0.18	800.00	144.00
2202	= 3 sqm. Total = 33 Sqm Bitumen felt :Type 3 grade 1 Stone grit 6 mm and down size or pea sized gravel 30x6=180 cudm	cum	0.18	163.93	29.51
2211	Carriage of Stone aggregate below 40 mm nominal size	tonne	0.162	163.93	26.56
0370	Carriage of Tar bitumen 0.087tx2.7x.001x33=0.162t	quintal	0.174	440.00	76.56

Code	Description	Unit	Quantity	Rate	Amount
2200	Coal (steam)	tonne	0.0174	187.35	3.26
9999	= 2 quintals/t of bitumen i.e. 2x0.087 =0.174q	L.S.	134.55	2.12	285.25
0131	Carriage of steam coal	day	2.16	714.00	1542.24
0114	Praparing roof surface, sutting groove and making good etc.	day	3.24	645.00	2089.80
0130	LABOUR	day	0.18	784.00	141.12
9999	Sundries, brushes etc.	L.S.	6.76	2.12	14.33
	TOTAL				9689.35 W
	Add 1 % Water charges on "W"				96.89
	TOTAL				9786.24 X
	Add GST on "X" (multiplying factor 0.1405)				1374.97
	TOTAL				11161.21 Y
	Add 15% CPOH on "Y"				1674.18
	TOTAL				12835.39 Z
	Add Cess @ 1% on "Z"				128.35
	Cost of 30.00 Sqm.				12963.75
	Cost of 1.00 Sqm.				432.12
	Say				432.10
	FOR DPA 30% LESS				302.47

21.9 Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth course of blown bitumen 85/25 or 90/15 conforming to IS : 702 applied hot @ 1.45, 1.20 and 1.45 Kg per square metre of area respectively, second and fourth courses of roofing felt type 3 grade I conforming to IS : 1322 (Hessian based self finished bitumen felt) , sixth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface but excluding grading, complete.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 sqm				
	Blown or / and residual bitumen applied hot (1.45+1.20+1.45)x30=123kg				
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.123	34790.00	4279.17
	Bitumen felt Type 3 grade 1 (hessian base self finished bitumen felt) = 60 sqm.+ Add for over lapping @ 10% = 6 sqm. Total =66 Sqm				
0322	Bitumen felt :Type 3 grade 1	sqm	66.00	70.00	4620.00
2211	Carriage of Tar bitumen 0.123t+2.7x.001x66=0.273t	tonne	0.273	163.93	44.75
1177	Stone grit 6 mm and down size or pea sized gravel 30x6=180cudm	cum	0.18	800.00	144.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.18	163.93	29.51
0370	Coal (steam) = 2 quintals/t of bitumen i.e. 2x0.123 =0.246q	quintal	0.246	440.00	108.24
2200	Carriage of steam coal	tonne	0.0246	187.35	4.61
9999	Praparing roof surface, sutting groove and making good etc.	L.S.	134.55	2.12	285.25
	LABOUR				

0131	Painter	day	3.24	714.00	2313.36
0114	Beldar	day	4.86	645.00	3134.70
0130	Mistry	day	0.2	784.00	156.80
9999	Sundries, brushes etc.	L.S.	6.76	2.12	14.33
	TOTAL				15134.72 W
	Add 1 % Water charges on "W"				151.35
	TOTAL				15286.06 X
	Add GST on "X" (multiplying factor 0.1405)				2147.69
	TOTAL				17433.76 Y
	Add 15% CPOH on "Y"				2615.06
	TOTAL				20048.82 Z
	Add Cess @ 1% on "Z"				200.49
	Cost of 30.00 Sqm.				20249.31
	Cost of 1.00 Sqm.				674.98
	Say				675.00
	FOR DPA 30% LESS				472.50

21.10 Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or / and residual bitumen applied hot at 1.45, 1.20 and 1.70 kg per square metre of area respectively, second and fourth courses of roofing felt type 2 grade I (fibre base self finished bitumen felt) six and final courses of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface, excluding grading, complete.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 30 sqm				
	Blown bitumen applied hot (1.45+1.20+1.70)x30 = 130.5 kg.				
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.1305	34790.00	4540.10
	Bitumen felt type B grade I (fibre base self finished bitumen felt) = 60 sqm. + Add for over lapping @ 10% = 6 sqm. Total =66 Sqm				
0318	Bitumen felt fibre base (vegetable or animal):Type 2 grade 1	sqm	66.00	70.00	4620.00
2211	Carriage of Tar bitumen (0.131 t+2.22x.001x66 = 0.275t)	tonne	0.275	163.93	45.08
1177	Stone grit 6 mm and down size or pea sized gravel	cum	0.18	800.00	144.00
	30x6=180cudm				
	CARRIAGE:				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.18	163.93	29.51
	Fuel (Steam coal) = 2 quintals/t of bitumen i.e. 0.1305=0.261q				
0370	Coal (steam)	quintal	0.261	440.00	114.84
2200	Carriage of steam coal	tonne	0.0261	187.35	4.89
9999	Praparing roof surface, sutting groove and making good etc.	L.S.	134.55	2.12	285.25
	LABOUR				
0131	Painter	day	4.32	714.00	3084.48
0114	Beldar	day	6.48	645.00	4179.60
0130	Mistry	day	0.36	784.00	282.24
9999	Sundries, brushes etc.	L.S.	6.76	2.12	14.33

	TOTAL				17344.31 W
	Add 1 % Water charges on "W"				173.44
	TOTAL				17517.75 X
	Add GST on "X" (multiplying factor 0.1405)				2461.24
	TOTAL				19979.00 Y
	Add 15% CPOH on "Y"				2996.85
	TOTAL				22975.85 Z
	Add Cess @ 1% on "Z"				229.76
	Cost of 30.00 Sqm.				23205.61
	Cost of 1.00 Sqm.				773.52
	Say				773.50
	FOR DPA 30% LESS				541.45

21.11 Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or / and residual bitumen applied hot at 1.45, 1.20 and 1.70 kg per square metre of area respectively, second and fourth courses of roofing felt type 2 grade II (glass fibre base self finished bitumen felt) and sixth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface but excluding grading, complete.

Code	Description	Unit	Quantity	Rate	Amount
	Detail of cost for 30 sqm				
	Blown or / and residual bitumen applied hot (1.45+1.20+1.70)x30 =130.5 kg.				
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.1305	34790.00	4540.10
	Bitumen felt as per IS 7193 Grade II (fibre base self finished bitumen felt) = 60 sqm. + Add for over lapping @ 10% = 6 sqm. Total =66 Sqm				
0318	Bitumen felt fibre base (vegetable or animal):As per IS 7193 Grade I	sqm	66.00	70.00	4620.00
2211	Carriage of Tar bitumen	tonne	0.334	163.93	54.75
	(0.131t+3.08x.001x66=334t.)				
1177	Stone grit 6 mm and down size or pea sized gravel	cum	0.18	800.00	144.00
	30x6=180cudm				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.18	163.93	29.51
	Fuel (Steam coal) = 2 quintals/t of bitumen				
	i.e. 2x0.1305=0.261q				
0370	Coal (steam)	quintal	0.261	440.00	114.84
2200	Carriage of steam coal	tonne	0.0261	187.35	4.89
9999	Praparing roof surface, sutting groove and making good etc.	L.S.	134.55	2.12	285.25
	LABOUR				
0131	Painter	day	4.32	714.00	3084.48
0114	Beldar	day	6.48	645.00	4179.60
0130	Mistry	day	0.36	784.00	282.24
9999	Sundries, brushes etc.	L.S.	6.76	2.12	14.33
	TOTAL				17353.98 W
	Add 1 % Water charges on "W"				173.54

	TOTAL				17527.52 X
	Add GST on "X" (multiplying factor 0.1405)				2462.62
	TOTAL				19990.14 Y
	Add 15% CPOH on "Y"				2998.52
	TOTAL				22988.66 Z
	Add Cess @ 1% on "Z"				229.89
	Cost of 30.00 Sqm.				23218.55
	Cost of 1.00 Sqm.				773.95
	Say				773.95
	FOR DPA 30% LESS				541.77

21.12 Supplying and applying bituminous solution primer on roof and / or wall surface at 0.24 litre per sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sq. metres				
	MATERIAL				
0316	Bitumen solution primer of approved quality	litre	2.40	47.00	112.80
9977	CARRIAGE	L.S.	1.43	2.12	3.03
	LABOUR				
0131	Painter	day	0.17	714.00	121.38
0114	Beldar	day	0.17	645.00	109.65
9999	Sundries brushes etc.	L.S.	13.52	2.12	28.66
	TOTAL				375.52 W
	Add 1 % Water charges on "W"				3.76
	TOTAL				379.28 X
	Add GST on "X" (multiplying factor 0.1405)				53.29
	TOTAL				432.57 Y
	Add 15% CPOH on "Y"				64.89
	TOTAL				497.45 Z
	Add Cess @ 1% on "Z"				4.97
	Cost of 10.00 Sqm.				502.43
	Cost of 1.00 Sqm.				50.24
	Say				50.25
	FOR DPA 30% LESS				35.18

21.13 Deduct for omitting in water proofing treatment final course of spreading stone grit 6 mm down size or pea sized gravel :

21.13.1 at 6 cudm per sqm

Code	Description	Unit	Quantity	Rate	Amount
1177	Details of cost for 10 sqm. MATERIAL Stone grit 6 mm and down size or pea sized gravel 6x10 = 60 cudm	cum	0.06	800.00	48.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.06	163.93	9.84
9999	Labour for screening and spreading grit	L.S.	21.58	2.12	45.75
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				117.92 W
	Add 1 % Water charges on "W"				1.18
	TOTAL				119.10 X
	Add GST on "X" (multiplying factor 0.1405)				16.73

	TOTAL				135.83 Y
	Add 15% CPOH on "Y"				20.37
	TOTAL				156.20 Z
	Add Cess @ 1% on "Z"				1.56
	Cost of 10.00 Sqm.				157.77
	Cost of 1.00 Sqm.				15.78
	Say				15.80
	FOR DPA 30% LESS				11.06

21.13.2 at 8 cudm per sqm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 sqm.				
	MATERIAL				
1177	Stone grit 8 mm and down size or pea sized gravel	cum	0.08	800.00	64.00
	8x10 = 80 cudm				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.08	163.93	13.11
9999	Labour for screening and spreading grit	L.S.	26.91	2.12	57.05
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				148.49 W
	Add 1 % Water charges on "W"				1.48
	TOTAL				149.98 X
	Add GST on "X" (multiplying factor 0.1405)				21.07
	TOTAL				171.05 Y
	Add 15% CPOH on "Y"				25.66
	TOTAL				196.71 Z
	Add Cess @ 1% on "Z"				1.97
	Cost of 10.00 Sqm.				198.68
	Cost of 1.00 Sqm.				19.87
	Say				19.85
	FOR DPA 30% LESS				13.90

21.14 Grading roof for water proofing treatment with

21.14.1 Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)

Code	Description	Unit	Quantity	Rate	Amount
0295	Details of cost for one cum. Stone Aggregate (Single size) : 20 mm nominal size	cum	0.67	1400.00	938.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.22	1350.00	297.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.89	163.93	145.90
0982	Coarse sand (zone III)	cum	0.45	1500.00	675.00
2203	Carriage of Coarse sand	cum	0.45	163.93	73.77
0367	Portland Cement (OPC-43 grade)	tonne	0.32	5000.00	1600.00
2209	Carriage of Cement	tonne	0.32	145.72	46.63
	LABOUR				
0114	Beldar	day	1.63	645.00	1051.35
0101	Bhisti	day	0.70	714.00	499.80
0123	Mason (brick layer) 1st class	day	0.10	784.00	78.40
9999	Sundries, brushes etc.	L.S.	14.30	2.12	30.32
0002	Hire charges of Concrete Mixer 0.25 to				

Code	Description	Unit	Quantity	Rate	Amount
	0.40 cum with hooper	day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	day	0.07	350.00	24.50
9999	Sundries for laying in terrace	L.S.	45.76	2.12	97.01
	TOTAL				5613.67 W
	Add 1 % Water charges on "W"				56.14
	TOTAL				5669.81 X
	Add GST on "X" (multiplying factor 0.1405)				796.61
	TOTAL				6466.42 Y
	Add 15% CPOH on "Y"				969.96
	TOTAL				7436.38 Z
	Add Cess @ 1% on "Z"				74.36
	Cost of one cum				7510.75
	Say				7510.75
	FOR DPA 30% LESS				5257.53

21.14.2 Cement mortar 1:3 (1 cement : 3 coarse sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one cum.				
	MATERIAL				
	Cement mortar 1:3				
3.8	Rate as per Item No.3.8 of SH:Mortars	cum	1.00	5024.15	5024.15
	LABOUR				
0155	Mason (average)	day	1.00	749.00	749.00
0114	Beldar	day	2.00	645.00	1290.00
0101	Bhisti	day	0.50	714.00	357.00
0115	Coolie	day	5.00	645.00	3225.00
9999	Sundries	L.S.	11.70	2.12	24.80
	TOTAL				10669.95 W
	Add 1 % Water charges on "W"				106.70
	TOTAL				10776.65 X
	Add GST on "X" (multiplying factor 0.1405)				1514.12
	TOTAL				12290.77 Y
	Add 15% CPOH on "Y"				1843.62
	TOTAL				14134.39 Z
	Add Cess @ 1% on "Z"				141.34
	Cost of one cum				14275.73
	Say				14275.75
	FOR DPA 30% LESS				9993.03

21.14.3 Cement mortar 1:4 (1cement : 4 coarse sand)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for one cum.				
	MATERIAL				
	Cement mortar 1:4				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	1.00	4355.20	4355.20
	LABOUR				
0155	Mason (average)	day	1.00	749.00	749.00
0114	Beldar	day	2.00	645.00	1290.00
0101	Bhisti	day	0.50	714.00	357.00
0115	Coolie	day	5.00	645.00	3225.00
9999	Sundries	L.S.	10.79	2.12	22.87
	TOTAL				9999.07 W

	Add 1 % Water charges on "W"				99.99
	TOTAL				10099.07 X
	Add GST on "X" (multiplying factor 0.1405)				1418.92
	TOTAL				11517.98 Y
	Add 15% CPOH on "Y"				1727.70
	TOTAL				13245.68 Z
	Add Cess @ 1% on "Z"				132.46
	Cost of one cum				13378.14
	Say				13378.15
	FOR DPA 30% LESS				9364.71

21.22 Providing and mixing integral crystalline admixture for water proofing treatment to RCC structures like basement raft, retaining walls, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc. at the time of transporting of concrete into the drum of the ready-mix truck , using integral crystalline admixture @0.80% (minimum) to the weight of cement content per cubic meter of concrete) or higher as recommended by the manufacturer's specification in reinforced cement concrete at site of work. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e. by reducing permeability of concrete by more than 90%, compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure. The crystalline admixture shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the Engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 kg MATERIAL :				
0352	Integral crystalline admixture	kg	1.00	230.00	230.00
9999	LABOUR : For measuring, making and mixing etc..	L.S.	5.80	2.12	12.30
9999	Sundries	L.S.	1.15	2.12	2.44
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.12	3.71
	TOTAL				248.44 W
	Add 1 % Water charges on "W"				2.48
	TOTAL				250.93 X
	Add GST on "X" (multiplying factor 0.1405)				35.26
	TOTAL				286.18 Y
	Add 15% CPOH on "Y"				42.93
	TOTAL				329.11 Z
	Add Cess @ 1% on "Z"				3.29
	Cost for 1.00 Kg				332.40
	Say				332.40
	FOR DPA 30% LESS				232.68

21.22A Providing and applying fibre reinforced elastomeric liquid water proofing membrane with resilient acrylic polymers having Sun Reflectivity Index (SRI) of 105 on top of concrete roof in three coats @10.76 litre/ 10 sqm. One coat of self-priming of elastomeric waterproofing liquid (dilution with water in the ratio of 3:1) and two coats of undiluted elastomeric waterproofing liquid (dry film thickness of complete application/system not less than 500 microns). The operation shall be carried out after scrapping and properly cleaning the surface to remove loose particles with wire brushes, complete in all respect as per the direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 Sqm				
	MATERIAL				
8511	Fibre reinforced elastomeric liquid water proofing membrane	litre	11.30	230.00	2599.00

	10.76 litre + 0.538 (Add wastage 5%)				
	= 11.30 litre				
9977	Carriage of materials	L.S.	1.43	2.12	3.03
	LABOUR				
0115	Coolie	day	0.67	645.00	432.15
0131	Painter	day	0.67	714.00	478.38
9999	Wire brush brushes, rollers etc.	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				3543.98 W
	Add 1 % Water charges on "W"				35.44
	TOTAL				3579.42 X
	Add GST on "X" (multiplying factor 0.1405)				502.91
	TOTAL				4082.33 Y
	Add 15% CPOH on "Y"				612.35
	TOTAL				4694.68 Z
	Add Cess @ 1% on "Z"				46.95
	Cost of 10 sqm				4741.62
	Cost of 1 sqm				474.16
	Say				474.15
	FOR DPA 30% LESS				331.91

21.23 Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in- charge. The product performance shall carry guarantee for 10 years against any leakage.

22.23.1 For vertical surface two coats @ 0.70 kg per sqm

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 sqm				
	MATERIAL :				
0351	Integral crystalline slurry (2 x .70kg / sq.mtr. = 1.40kg)	kg	1.40	195.00	273.00
	LABOUR				
9999	For application of waterproofing material	L.S.	11.55	2.12	24.49
9999	Sundries	L.S.	1.15	2.12	2.44
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.12	3.71
	TOTAL				303.63 W
	Add 1 % Water charges on "W"				3.04
	TOTAL				306.67 X
	Add GST on "X" (multiplying factor 0.1405)				43.09
	TOTAL				349.76 Y
	Add 15% CPOH on "Y"				52.46
	TOTAL				402.22 Z
	Add Cess @ 1% on "Z"				4.02

	Cost for 1.00 sqm				406.24
	Say				406.25
	FOR DPA 30% LESS				284.38

21.23.2 For horizontal surface one coat @1.10 kg per sqm.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 sqm MATERIAL :				
0351	Integral crystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg)	kilogram	1.10	195.00	214.50
9999	LABOUR : For application of waterproofing material	L.S.	5.75	2.12	12.19
9999	Sundries	L.S.	1.15	2.12	2.44
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.12	3.71
	TOTAL				232.84 W
	Add 1 % Water charges on "W"				2.33
	TOTAL				235.17 X
	Add GST on "X" (multiplying factor 0.1405)				33.04
	TOTAL				268.21 Y
	Add 15% CPOH on "Y"				40.23
	TOTAL				308.44 Z
	Add Cess @ 1% on "Z"				3.08
	Cost for 1.00 sqm				311.52
	Say				311.50
	FOR DPA 30% LESS				218.05

21.23A Providing & Applying polymer modified, flexible cementatious negative side waterproofing coating with elastic waterproofing polymers on interior wall plaster surface in three coats @14.35 kg /10 sqm. one coat of self priming of cementatious waterproofing polymer(dilution with water in the ratio of 1:1) and two coats of cementatious waterproofing polymer (dilution with water in the ratio of 3:1) after scrapping and properly cleaning the surface to remove pre-existing paint film & loose particles till plaster is visible, complete in all respect as per the direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 10 Sqm				
	MATERIAL				
8512	Cementitious water proofing coating with elastic polymers 14.35 kg + 0.72 (Add wastage 5%) = 15.07 litre	kg	15.07	225.00	3390.75
9977	Carriage of materials	L.S.	1.56	2.12	3.31
	LABOUR				
0115	Coolie	day	0.23	645.00	148.35
0131	Painter	day	0.46	714.00	328.44
9999	Wire brush brushes, rollers etc.	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				3903.09 W
	Add 1 % Water charges on "W"				39.03
	TOTAL				3942.12 X
	Add GST on "X" (multiplying factor 0.1405)				553.87
	TOTAL				4495.99 Y
	Add 15% CPOH on "Y"				674.40
	TOTAL				5170.39 Z
	Add Cess @ 1% on "Z"				51.70
	Cost of 10 sqm				5222.09
	Cost of 1 sqm				522.21
	Say				522.20

	FOR DPA 30% LESS				365.54

21.24 Providing and applying integral crystalline (dry shake) of hydrophilic in nature for waterproofing treatment to the RCC structures like basement raft, foundation slab, sewage & water treatment plant slab, warehouses floor, parking structures and water tank base slab etc. sprinkled @0.60kg per sqm or higher as recommended by the manufacturer's specification over the lean concrete of above cited structures. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e. by reducing permeability of concrete by more than 85%, compared control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline dry-shake shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the Engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 sqm				
	MATERIAL :				
0354	Integral crystalline dry shake	kilogram	0.60	280.00	168.00
	LABOUR				
9999	For measuring and sprinkling of waterproofing material	L.S.	11.55	2.12	24.49
9999	Sundries	L.S.	1.15	2.12	2.44
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.12	3.71
	TOTAL				198.63 W
	Add 1 % Water charges on "W"				1.99
	TOTAL				200.62 X
	Add GST on "X" (multiplying factor 0.1405)				28.19
	TOTAL				228.81 Y
	Add 15% CPOH on "Y"				34.32
	TOTAL				263.13 Z
	Add Cess @ 1% on "Z"				2.63
	Cost for 1.00 sqm				265.76
	Say				265.75
	FOR DPA 30% LESS				186.03

21.24A Providing & Applying high quality acrylic modified resin based texture of Dholpur/Red sand stone Pattern with anti algae and UV resistance properties to be applied as intermediate finish in desired pattern @ 43.04 kgs/10 sqm to form film of 1- 1.5 mm thickness after scrapping and properly cleaning the surface to remove loose particles from the plaster surface, followed by top coating with Premium Acrylic Smooth exterior paint with Silicone additives of required shade by two or more coats @ 1.43 litres/10 sqm, complete as the direction of Engineer -in-

Code	Description	Unit	Quantity	Rate	Amount
8513	Details of cost for 10 Sqm MATERIAL Acrylic modified resin based texture 43.04 kg + 2.15 (Add wastage 5%) = 45.19 kg	kg	45.19	42.00	1897.98
	Quantity taken for cost using once = 10 sqm				
	Top coat with premium acrylic exterior paint (two or more coats)				
13.112.1	Rate as per Item No.13.112.1 of SH:Finishing	sqm	10.00	108.60	1086.00 A
9977	Carriage of materials	L.S.	3.90	2.12	8.27
	LABOUR				
0115	Coolie	day	0.56	645.00	361.20
0123	Mason (brick layer) 1st class	day	0.56	784.00	439.04
9999	Sundries and scaffolding	L.S.	40.00	2.12	84.80

	TOTAL				3877.29 W
	Add 1 % Water charges on "W-A"				27.91
	TOTAL				3905.20 X
	Add GST on "X-A" (multiplying factor 0.1405)				396.10
	TOTAL				4301.30 Y
	Add 15% CPOH on "Y-A"				482.29
	TOTAL				4783.59 Z
	Add Cess @ 1% on "Z-A"				36.98
	Cost of 10 sqm				4820.57
	Cost of 1 sqm				482.06
	Say				482.05
	FOR DPA 30% LESS				**337.44**

21.25 Providing and applying crystalline mortar by mixing in the ratio of 4.5 : 1 (4.5 parts crystalline mortar : 1 part water) for the treatment of faulty construction joints, cracks, tie rod holes and spalled & honeycombed surface of RCC underground structures like basement, water tanks, bridge deck etc. to ensure water tightness. The crystallie mortar shall conform to the EN 1504-3 having compressive strength Class R4 ?45 MPa and adhesive bond strength Class R3 ?1.5 MPa. The work shall be carried out all complete as per specification and the direction of the Engineer-In-Charge. The product performance shall carry guarantee for 10 years against any leakage.

22.25.1 For sealing cracks and faulty construction joints, routed out/making U-shape groove size 25x25mm and then primed the area with integral crystalline slurry @0.05kg/running metre and while the surface is tacky filled the groove upto surface with crystalline mortar @1.50kg/running metre. Once crystalline mortar is touch dry then finally applied two coats of integral crystalline slurry @0.05kg/running metre per coat.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 meter MATERIAL :				
0353	Crystalline Mortar @1.50 kg per meter Integral	kilogram	1.50	190.00	285.00
0351	crystalline slurry for priming and finishing	kilogram	0.150	195.00	29.25
9999	(3 x 0.05kg / meter) = 0.15kg LABOUR	L.S.	14.450	2.12	30.63
9999	For making crystalline mortar and repair work etc..	L.S.	1.150	2.12	2.44
	Sundries				
9999	Carriage of material and tools cost etc..	L.S.	1.750	2.12	3.71
	TOTAL				351.03 W
	Add 1 % Water charges on "W"				3.51
	TOTAL				354.54 X
	Add GST on "X" (multiplying factor 0.1405)				49.81
	TOTAL				404.36 Y
	Add 15% CPOH on "Y"				60.65
	TOTAL				465.01 Z
	Add Cess @ 1% on "Z"				4.65
	Cost for 1.00 meter				469.66
	Say				469.65
	FOR DPA 30% LESS				328.76

21.25.2 For patching of tie rod holes, prepared tie rod hole surface and then primed the area with integral crystalline slurry @0.070kg/sqm and while the surface is tacky repair and then filled the tie rod holes with crystalline mortar@0.040kg per hole. The crystalline mortar should be tightly rodded into tie rod holes or packed tightly (For 25x25x25 mm tie rod hole, use 0.040kg to fill the hole)

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1 no. hole				
	MATERIAL :				

0353	Crystalline mortar@0.040 kg per hole	kilogram	0.04	190.00	7.60
	LABOUR				
9999	For making crystalline mortar and repair work etc..	L.S.	2.90	2.12	6.15
9999	Sundries	L.S.	0.30	2.12	0.64
9999	Carriage of material and tools cost etc..	L.S.	0.25	2.12	0.53
	TOTAL				14.91 W
	Add 1 % Water charges on "W"				0.15
	TOTAL				15.06 X
	Add GST on "X" (multiplying factor 0.1405)				2.12
	TOTAL				17.18 Y
	Add 15% CPOH on "Y"				2.58
	TOTAL				19.76 Z
	Add Cess @ 1% on "Z"				0.20
	Cost for each hole				19.95
	Say				19.95
	FOR DPA 30% LESS				13.97

21.26 Providing and applying of swellable type water stop tape, 19mm x 25mm thick in linear meter (expansive nature) for construction joints treatment of RCC structure such as raft slab, retaining walls, water storage tank and at the junctions of raft slab with the retaining walls etc.. After cleaning the surface, one coat of required primer for swellable water stop tape shall be applied throughout the length of the joint @3.78 litre per 240 running meter. Over the primed surface swellable type water stop tape shall be placed. The work shall

be carried out all complete as per specification and the direction of the Engineer-In-Charge. The product performance shall carry guarantee for 10 years against any leakage.

Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 1.00 meter				
	MATERIAL :				
0355	Swellable type water stop tape (Crystalline sealing compound)	metre	1.00	325.00	325.00
0356	Swellable type water stop primer (@3.78 litre per 240 running meter)	Litre	0.016	1300.00	20.80
	LABOUR				
9999	For application of primer and swellable water stop	L.S.	8.65	2.12	18.34
9999	Sundries	L.S.	1.15	2.12	2.44
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.12	3.71
	TOTAL				370.29 W
	Add 1 % Water charges on "W"				3.70
	TOTAL				373.99 X
	Add GST on "X" (multiplying factor 0.1405)				52.55
	TOTAL				426.53 Y
	Add 15% CPOH on "Y"				63.98
	TOTAL				490.51 Z
	Add Cess @ 1% on "Z"				4.91
	Cost for 1.00 metre				495.42
	Say				495.40
	FOR DPA 30% LESS				**346.78**