

# DEENDAYAL PORT AUTHORITY



Office of the Executive Engineer(D),  
Deendayal Port Authority,  
A. O. Building,  
Gandhidham.

Sub:- Release of SOR-2022 for the Civil works of Deendayal  
Port Authority -reg

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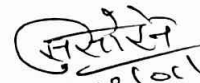
With reference to the above, the SOR-2022 for Civil Works have been approved by Competent Authority and released for implementation from 15/01/2023. This will be applicable for Kandla, Gandhidham & Vadinar.

All Divisional Officers are requested to prepare the estimate as per the approved SOR -2022.

Dy Director-EDP, is requested to upload SOR-2022 on DPA website.

Soft copy sent via email to all the concerns.

This has the approval of Competent Authority.

  
12/01/2023

Executive Engineer (Design)

FA&CAO/DDED/SE(D)/SE(P)/SE(H)/SE(C-I)/ SE (PL)/ XEN (TD)/XEN(R)

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No : CE/DESIGN/SOR'2021/ 481

Date:- 12/01/2023  
13



# **DEENDAYAL PORT AUTHORITY**

**(FORMELY KANDLA PORT  
TRUST)**

**ISO 9001:2015 | ISO 14001 | ISPS compliant port**

# **SCHEDULE OF RATES**

## **2022**

**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 -2021-DELHI**
- **THE REVISED SOR IS PREPARED CONSIDERING THE CPWD DELHI SOR 2021 RATES AND BY REDUCING IT BY 30%.**
- **THE BIFURCATION IS AS UNDER:**
  - **REDUCING FACTOR CONSIDERED FOR KUTCH DISTRICT :- 8.57%**
  - **GST :- 14.05%**
  - **CONTRACTORS PROFITS (15%-10%) :- 5.00%**
  - **TOTAL:- 27.62%**  
**:- SAY 30.00%**

**THESE RATES ARE COMMON FOR GANDHIDHAM/ KANDLA/ VADINAR**

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<b>BASIC RATES</b>			
<b>0.1 HIRE CHARGES OF PLANTS &amp; MACHINERY</b>			
<b>Note :- These rates are exclusive of GST, contractor's profit and over heads etc.</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Basic rate as on or 01-04-2021</b>
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	800.00
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	day	800.00
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	3000.00
0004	Production cost of concrete by batch mix plant	cum	400.00
0005	Hire charges of Diesel Truck - 9 tonne (with POL)	day	3940.00
0006	Hire charges of Spraying machine including electric charges	day	250.00
0007	Hire charges of Coaltar Sprayer	day	350.00
0008	Hire charges of Barber green, drying, mixing and Asphalt Plant, with accessories, capacity 30/45 tonne	day	7700.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	210.00
0010	Hire charges of Derrick monkey rope	day	750.00
0011	Hire charges of Pump set of capacity 4000 litres/hour	day	700.00
0012	Vibrator (Needle type 40 mm)	day	350.00
0013	Machine for rubbing of floors	day	300.00
0014	Front end loader capacity 1.00 cum	day	6000.00
0015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	3000.00
0016	Mastic Cooker	day	750.00
0017	Hire and running charges of tipper	day	3750.00
0018	Hire and running charges of loader	day	6000.00
0019	Hand Grinder for mirror polish	day	250.00
0020	Hydraulic Excavator (3D) with driver and fuel	day	7000.00
0021	Pin vibrator	day	250.00
0022	Surface Vibrator	day	300.00
0023	Hot Bitumen Mixer 0.5 cum i/c hand cart	day	3500.00
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	35000.00
0025	Hire and running charges of light crane	day	3500.00
0026	Hire and running charges of bentonite pump	day	3000.00
0027	Hire and running charges of vibrating pile driving hammer	day	30000.00
0028	Hire and running charges of crane 20 tonne capacity	day	7000.00
0029	Carriage of ready mixed concrete by rotatory transit mixer	km/cum	37.30
0030	Generator 250 KVA	day	3000.00
0031	Steam curing by using boiler /Heater	cum	500.00
0032	Stressing Machine (jack with pump)	day	11500.00
0033	Paint applicator	day	800.00
0034	Cutting saw machine	day	1350.00
0035	Strands Roller machinery for laying strands	day	3500.00
0036	Bed master (Pulling strands)	day	3000.00
0037	Mobile crane	day	4500.00
0038	Tractor with ripper attachment	day	1200.00
0039	Tractor with trolley	day	1200.00
0040	Air compressor 250 cfm with two leads for pneumatic cutters /	day	1600.00
0041	Joint cutting machine with 2-3 blades	day	800.00

0042	C.C .batch mix plant	day	10000.00
0043	Road sweeper	day	550.00
0044	Cost for crane upto 40 tonne capacity	day	8000.00
0045	Slip form paver with sensor	day	13000.00
0046	Water tanker 5000 litre	day	1200.00
0047	Concrete joint cutting machine	day	600.00
0048	Texturing machine	day	925.00
0049	Dozer D-80-A 12	hour	1500.00
0050	Motor Grader 3.35 metre blade	hour	2400.00
0051	Hydraulic Excavator of 1 cum bucket	hour	800.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	1300.00
0053	Tipper-5 Cum/10 tonnes	tonne/km	3.30
0054	Vibratory roller 8 to 10 tonne	hour	600.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	300.00
0056	Tandem Road Roller	hour	1200.00
0057	Water Tanker 5 to 6 KL capacity	hour	200.00
0058	Air compressor	hour	200.00
0059	Wet Mix Plant 60 TPH	hour	950.00
0060	Mechanical Broom Hydraulic	hour	450.00
0061	Emulsion Pressure Distributor of capacity 1750 sqm per hour	hour	700.00
0062	Hot mix Plant -120 TPH capacity	hour	15000.00
0063	Hot mix Plant 100 TPH Capacity	hour	13000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	1500.00
0065	Paver finisher Mechanical 100 TPH	hour	800.00
0066	Batching and Mixing Plant @ 75 cum per hour	hour	2400.00
0067	Cost for crane upto 80 tonne capacity	day	15000.00
0068	Concrete Paver finisher with 40 HP Motor and sensor	hour	3000.00
0069	Generator 250 KVA	hour	400.00
0070	Generator 100 KVA/125 KVA	hour	300.00
0071	Truck 5.5 cum/10 tonnes	tonne km	3.30
0072	Cost for crane having capacity 50MT	day	8500.00
0075	Road sweeper (Mechanical Broom) @ 1250 sqm per hour	hour	450.00
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	12000.00
0080	Hire and running charges of drill machine up to 400 mm dia (including cost of mobile oil, diesel consumption in ordinary soil and operator)	day	7500.00
0081	Pile Integrity testing equipment	day	3000.00
0082	Excavation of Diaphragm wall by Mechanical Grab	sqm	1500.00
0083	Hire charges of TATA 407 or equivalent for local shifting.	day	1400.00
	<b>Note :- 1. Above hire - charges (from item code 0001 to 0083) include cost of services of operating staff, Cost of lubricating oil, diesel / Petrol/ Kerosene oil , other consumables for running the plant and machinery and excluding GST. 2. The hire charges of plant machinery on per day basis are for single shift of eight working hours.</b>		
0084	Hire charges of diesel truck - 9 tonne (witout POL)	day	2000.00
0085	Using cost of Ultra Violet Radiation tube	Hour	190.00
0086	Compressor, gun, rubber pipes & other accessories- hire charge of plant & machinery i/c necessary fuel.		
	plant & machinery i/c necessary fuel	day	4000.00
0087	Hire Charges of Suction Jeting machine 2200 PSI machine i/c POL and operator	day	40000.00
0088	Hire charges of Drill machine upto 30 mm dia	day	160.00

0089	Hire charges of sand blasting equipment	day	400.00
0090	Hire charges of compressor	day	500.00
0091	Welding charges of shear key to existing reinforcement	each	5.00
0092	Hire charges of plant and Machinery that can inject 350 kg/day	day	200.00
0093	Hire Charges of Suction Jeting machine 1500 PSI machine i/c POL and operator	day	10000.00

## BASIC RATES

### 0.2 LABOUR

**Note:- These rates are exclusive of GST, contractor's profit and over heads and are inclusive of wages for weekly day of rest.**

Code No.	Description	Unit	Basic rate as on or 01-04-2021
0101	Bhisti	day	714.00
0102	Blacksmith 1st class	day	784.00
0103	Blacksmith 2nd class	day	714.00
0111	Carpenter 1st class	day	784.00
0112	Carpenter 2nd class	day	714.00
0113	Chowkidar	day	645.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0116	Fitter (grade 1)	day	784.00
0117	Assistant Fitter or 2nd class Fitter	day	714.00
0119	Glazier	day	714.00
0122	Mason (for plaster of paris work) 1st class	day	784.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0125	Mason (for plain stone work) 2nd class	day	714.00
0126	Mason (for ornamental stone work) 1st class	day	784.00
0127	Driver for (Road roller, concrete mixer, Trucks etc.)	day	784.00
0128	Mate	day	714.00
0129	Sewer man	day	645.00
0130	Mistry	day	784.00
0131	Painter	day	714.00
0132	Rock Excavator	day	645.00
0133	Rock Breaker	day	645.00
0134	Rock Hole Driller	day	645.00
0135	Stone Chiseller	day	714.00
0138	Sprayer (for bitumen, tar etc.)	day	714.00
0139	Skilled Beldar (for floor rubbing etc.)	day	714.00
0141	White Washer	day	714.00
0154	Nozzel man/ gun man	day	784.00
0155	Mason(average)	day	749.00
0156	Carpenter (average)	day	749.00
0157	Operator (Pile/ Special machine)	day	784.00
0159	Skilled torch operator for laying tack	day	784.00
0160	Technician	day	853.00
0161	Helper (Technician)	day	645.00
0162	Labour for fabrication of uPVC extruded casement/ sliding	sqm	534.00
0163	Labour for installation of uPVC extruded casement/ sliding	sqm	773.00
0164	Security guard without gun (8 hours shift duty per day)	day	784.00
0165	Security guard with gun (8 hours shift duty per day)	day	853.00
0166	Installation charges for fixing of façade at all heights with	sqm	645.00
0167	Polisher 1st class	day	784.00
0168	Polisher 2nd class	day	714.00
0169	Specialized technicians	day	853.00



<b>BASIC RATES</b> <b>0.3 CARRIAGE CODES</b> <b>(Carriage for 5.0 km lead by Mechanical Transport including loading, Unloading and stacking).</b> <b>Note: - These rates are exclusive of GST, contractor's profit and overhead charges.</b>			
Code No.	Description	Unit	Basic rate as on or 01-04-2021
2200	Steam coal	tonne	187.35
2201	Bricks	1000 Nos	437.15
2202	Stone aggregate below 40 mm nominal size	cum	163.93
2203	Coarse sand	cum	163.93
2204	Timber	cum	187.35
2205	Steel	tonne	145.72
2206	Stone aggregate 40 mm nominal size and above	cum	178.19
2207	Brick tiles	1000 Nos	262.29
2208	Lime	cum	163.93
2209	Cement	tonne	145.72
2211	Tar bitumen	tonne	163.93
2215	Soling stone & masonry stone	cum	192.86
2216	Stone blocks white & red sand stone & kota stone slab	tonne	145.72
2224	S.W. pipes 100 mm dia	100 metre	218.58
2225	S.W. pipes 150 mm dia	100 metre	437.15
2226	S.W. pipes 200 mm dia	100 metre	728.59
2228	S.W. pipes 250 mm dia	100 metre	1249.01
2229	S.W. pipes 300 mm dia	100 metre	1561.26
2241	Good earth	cum	204.92
2242	Dump manure	cum	178.19
2260	Brick aggregate	cum	178.19
2261	Sand	cum	163.93
2262	Fly ash	cum	163.93
2264	Rubbish	cum	163.93
2265	Moorum	cum	163.93
2266	Surkhi	cum	163.93
2267	Stone dust	cum	163.93
2268	Marble dust and marble chips	cum	163.93
2271	G.I. pipes below 100 mm dia	tonne	145.72
2272	Stainless Steel pipe below 100 mm dia	tonne	145.72
2273	A.C.sheet and accessories	tonne	145.72
2275	R.C.C. pipes 100 mm dia	100 metre	358.32
2281	R.C.C. pipes 150 mm dia	100 metre	597.20
2287	R.C.C. pipes 250 mm dia	100 metre	1380.48
2290	R.C.C. pipes 300 mm dia	100 metre	1706.30
2299	R.C.C. pipes 450 & 500 mm dia	100 metre	3981.36
2302	G.I.sheet and accessories	tonne	145.72
2303	R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	5972.04
2308	Plaster of paris	tonne	145.72
2309	Cast iron fittings	tonne	145.72
2311	Red bajri	cum	163.93
2314	Barbed wire	tonne	145.72

2317	Sludge	cum	178.19
2319	Spun iron S & S pipes 100 mm dia	100 metre	358.32
2320	Spun iron S & S pipes 125 mm dia	100 metre	478.64
2321	Spun iron S & S pipes 150 mm dia	100 metre	597.20
2322	Spun iron S & S pipes 200 mm dia	100 metre	971.45
2323	Spun iron S & S pipes 250 mm dia	100 metre	1380.48
2324	Spun iron S & S pipes 300 mm dia	100 metre	1706.30
2325	Spun iron S & S pipes 350 mm dia	100 metre	2388.82
2326	Spun iron S & S pipes 400 mm dia	100 metre	3257.48
2327	Spun iron S & S pipes 450 mm dia	100 metre	3981.36
2328	Spun iron S & S pipes 500 mm dia	100 metre	3981.36
2329	Spun iron S & S pipes 600mm dia	100 metre	5972.04
2330	C.I. pipes 500 mm dia	100 metre	3981.36
2331	R.C.C. pipes 900 mm dia	100 metre	8958.06
2332	R.C.C. pipes 1000 mm dia	100 metre	11944.08
2333	R.C.C. pipes 1100 mm dia	100 metre	11944.08
2334	R.C.C. pipes 1200 mm dia	100 metre	11944.08
2335	Jamuna sand	cum	163.93
2336	RCC pipe above 1200 mm dia & up to 1800 mm dia	100 metre	11944.08
2341	Pig lead	tonne	145.72
2342	Solvent/ Diesel	quintal	16.39
2343	Ductile iron pipes (k7) 100 mm dia	100 metre	358.32
2344	Cast iron pipes 150 mm dia	100 metre	597.20
2345	Cast iron pipes 200 mm dia	100 metre	971.45
2346	Cast iron pipes 250 mm dia	100 metre	1380.48
2347	Cast iron pipes 300 mm dia	100 metre	1706.30
2348	Cast iron pipes 350 mm dia	100 metre	2388.82
2349	Cast iron pipes 400 mm dia	100 metre	3257.48
2350	Cast iron pipes 450 mm dia	100 metre	3981.36
2351	Cast iron pipes 500 mm dia	100 metre	3981.36
2352	Cast iron pipes 600 mm dia	100 metre	5972.04
2353	Cast iron pipes 700 mm dia	100 metre	5972.04
2355	Cast iron pipes 800 mm dia	100 metre	5972.04
2356	Cast iron pipes 900 mm dia	100 metre	8958.06
2357	Cast iron pipes 1000 mm dia	100 metre	11944.08
2358	Carriage of Bamboo Mat corrugated sheets and accessories	tonne	17700.00

## BASIC RATES

### 0.3 MATERIALS

**Note:-** These rates are exclusive of GST, contractor's profit and over heads and carriage etc.

Code No.	Description	Unit	Basic rate as on or just before 01.04.2021 ₹
0222	Seam bolts and nuts 6 mm dia and 25 mm long	10 Nos	10.00
0223	Fibre reinforced by organic fibres and/or inorganic synthetic fibres cement corrugated sheet 6 mm thick	sqm	225.00
0224	Fibre reinforced by organic fibres and/or inorganic synthetic fibres cement close fitting adjustable ridge	metre	210.00
0225	Fibre reinforced by organic fibres and/or inorganic synthetic fibres cement corrugate serrated adjustable ridge	metre	210.00
0226	Fibre reinforced by organic fibres and/or inorganic synthetic fibres cement plain wing adjustable ridge	metre	210.00
0227	Fibre (high impact poly propylene reinforced) cement unserrated adjustable ridge for hips	metre	210.00
0228	Fibre reinforced by organic fibres and/or inorganic synthetic fibres cement corrugated apron piece	metre	200.00
0229	Fibre reinforced by organic fibres and/or inorganic synthetic fibres cement eaves filler piece	each	175.00
0230	Fibre reinforced by organic fibres and/or inorganic synthetic fibres cement north light curves	metre	280.00
0231	Fibre reinforced by organic fibres and/or inorganic synthetic fibres cement ventilator curves	each	310.00
0232	Fibre reinforced by organic fibres and/or inorganic synthetic fibres cement barge boards boards 6 mm thick	metre	400.00
0233	Fibre reinforced by organic fibres and/or inorganic synthetic fibres cement ridge finial	pair	165.00
0234	Fibre reinforced by organic fibres and/or inorganic synthetic fibres cement special north light curves	each	555.00
0235	Fibre reinforced by organic fibres and/or inorganic synthetic fibres cement S type louvers	each	260.00
0236	Multi purpose fibre reinforced by organic fibres and/or inorganic synthetic fibres cement board 6 mm thick	sqm	210.00
0237	Multi purpose fibre reinforced by organic fibres and/or inorganic synthetic fibres cement board 8 mm thick	sqm	220.00
0238	6 mm thick heavy duty fiber cement board	sqm	470.00
0239	8mm thick heavy duty fiber cement board	sqm	300.00
0240	9 mm thick heavy duty fiber cement board	sqm	625.00
0241	12.5 mm thick Gypsum plaster board	sqm	170.00
0242	6 mm thick multipurpose cement bonded wood particle board conforming to IS : 14276	sqm	195.00
0243	8 mm thick multipurpose cement bonded wood particle board conforming to IS : 14276	sqm	215.00
0244	Factory made light weight composite non asbestos fibre reinforced aerated cement sandwiched wall/roof panel (50mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 4mm thick) conforming to IS 14862:2000	sqm	634.00

SUB HEAD : 2.0			
EARTH WORK			
BASIC RATES (SH: 2.0 EARTH WORK)			
Code No.	Description	Unit	Rate
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	3000.00
0017	Hire and running charges of tipper	day	3750.00
0018	Hire and running charges of loader	day	6000.00
0020	Hydraulic Excavator (3D) with driver and fuel	day	7000.00
0101	Bhisti	day	714.00
0103	Blacksmith 2nd class	day	714.00
0112	Carpenter 2nd class	day	714.00
0113	Chowkidar	day	645.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0124	Mason (brick layer) 2nd class	day	714.00
0128	Mate	day	714.00
0132	Rock Excavator	day	645.00
0133	Rock Breaker	day	645.00
0134	Rock Hole Driller	day	645.00
0135	Stone Chiseller	day	714.00
0302	Safeda ballies 125 mm diameter	metre	40.00
0325	Blasting powder	kilogram	40.00
0326	Blasting fuse (fuse wire)	each	15.00
0771	Kerosene oil	litre	50.00
1197	Second class kail wood in scantling	10 cudm	260.00
1198	Second class kail wood in planks	10 cudm	260.00
1235	Diesel	litre	80.87
1980	Fly ash	cum	11.00
2204	Carriage of Timber	cum	187.35
2262	Carriage of Flyash	cum	163.93
2335	Carriage of sand	cum	163.93
2342	Carriage of Solvent / Diesel.	quintal	16.39
6501	Sand	cum	1300.00
7022	Chlorpyriphos 20% E.C. / Lindane 20% E.C.	litre	150.00
9999	Sundries	L.S.	2.12

<b>2.0 EARTH WORK</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
2.1	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50 m and lift upto 1.5 m, as directed by Engineer-in-Charge:		
2.1.1	All kinds of soil	sqm	74.90
2.2	Earth work in rough excavation, banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with ½ tonne roller or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up in embankments for roads, flood banks, marginal banks and guide banks or filling up ground depressions, lead upto 50 m and lift upto 1.5 m :		
2.2.1	All kinds of soil	cum	603.89
2.3	Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with ½ tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead upto 50 m and lift upto 1.5 m :		
2.3.1	All kinds of soil	cum	380.38
2.4	Deduct for not rolling with power roller of minimum 8 tonnes for banking excavated earth in layers not exceeding 20 cm in depth.	cum	3.08
2.5	Deduct for not watering the excavated earth for banking	cum	26.74
2.6	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.		
2.6.1	All kinds of soil	cum	143.82

2.7	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.		
2.7.1	All kinds of soil.	cum	200.80
2.8	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms,depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth,including consolidating each deposited layer by ramming, watering,etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :		
2.8.1	All kinds of soil		
2.8.1.1	Pipes, cables etc, not exceeding 80 mm dia.	metre	178.89
2.8.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	metre	292.15
2.8.1.3	Pipes, cables etc. exceeding 300 mm dia but not exceeding 600 mm	metre	456.09
2.9	Extra for excavating trenches for pipes, cables etc. in all kinds of soil for depth exceeding 1.5 m, but not exceeding 3 m. (Rate is over corresponding basic item for depth upto 1.5 metre).	metre	88.90
2.10	Extra for excavating trenches for pipes, cables, etc, in all kinds of soil for depth exceeding 3 m in depth, but not exceeding 4.5 m. (Rate is over corresponding basic item for depth upto 1.5 metre.)	metre	220.47
2.11	Open timbering in trenches including strutting and shoring complete (measurements to be taken of the face area timbered):		
2.11.1	Depth not exceeding 1.5 m	sqm	47.99
2.11.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	53.48
2.11.3	Depth exceeding 3 m but not exceeding 4.5 m	sqm	62.55
2.12	Open timbering in case of shafts, wells, cesspits, manholes and the like including strutting and shoring complete (Measurements to be taken of the face area timbered):		
2.12.1	Depth not exceeding 1.5 m	sqm	43.65
2.12.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	52.47
2.12.3	Depth exceeding 3 m but not exceeding 4.5 m	sqm	64.12

2.13	Open timbering over areas including strutting, shoring etc. complete.		
	(Measurements to be taken of the face area timbered):		
2.13.1	Depth not exceeding 1.5 m	sqm	29.68
2.13.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	35.56
2.13.3	Depth exceeding 3 m but not exceeding 4.5 m	sqm	45.01
2.14	Extra for planking and strutting in open timbering if required to be left permanently in position. (Face area of the timber permanently left to be measured).	sqm	575.44
2.15	Extra rates for quantities of works, executed :		
2.15.1	In or under water and/or liquid mud, including pumping out water as required.	metre depth	14.00%
2.15.2	In or under foul position, including pumping out water as required	metre depth	17.50%
2.16	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	cum	177.77
2.17	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.		
2.17.1	All kinds of soil	cum	73.15
2.17.2	Ordinary or hard rock	cum	131.18
2.18	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	cum	1,512.84
2.19	Surface dressing of the ground including removing vegetation and in- equalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m.		
2.19.1	All kinds of soil	sqm	19.71
2.20	Ploughing the existing ground to a depth of 15 cm to 25 cm and watering the same.		
2.20.1	All kinds of soil	sqm	19.95
2.21	Excavating holes more than 0.10 cum & upto 0.5 cum including getting out the excavated soil, then returning the soil as required in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering etc, disposing of surplus excavated soil, as directed within a lead of 50 m and lift upto 1.5 m.		
2.21.1	All kinds of soil	each	62.93
2.21.2	Ordinary rock	each	112.63

2.21.3	Hard rock (requiring blasting)	each	180.39
2.21.4	Hard rock (blasting prohibited)	each	266.98
2.22	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	sqm	10.15
2.23	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared.	sqm	5.18
2.24	Felling trees of the girth (measured at a height of 1		
2.24.1	Beyond 30 cm girth upto and including 60 cm girth	each	307.48
2.24.2	Beyond 60 cm girth upto and including 120 cm girth	each	1,370.01
2.24.3	Beyond 120 cm girth upto and including 240 cm girth	each	6,358.84
2.24.4	Above 240 cm girth	each	12,739.09
2.25	Supplying chemical emulsion in sealed containers including delivery as specified.		
2.25.1	Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	litre	22.61
2.26	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) :		
2.26.1	Along external wall where the apron is not provided using chemical emulsion @ 7.5 litres / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete:		
2.26.1.1	With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration	metre	22.61
2.26.2	Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes		
2.26.2.1	With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration	metre	31.29
2.26.3	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor:		
2.26.3.1	With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	sqm	25.03



2.26.4	Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole :		
2.26.4.1	With Chlorpyrifos/Lindane E.C. 20% with 1%	metre	180.29
2.26.5	Treatment at points of contact of wood work by chemical emulsion Chlorpyrifos/ Lindane (in oil or kerosene based solution) @ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same.	metre	25.03
2.27	Extra for levelling & neatly dressing of disposed soil completely as directed by Engineer-in-charge.	cum	53.69

## SUB HEAD : 3.0

### MORTARS

BASIC RATES (SH : 3.0 MORTAR)

Code No.	Description	Unit	Rate
0101	Bhisti	day	714.00
0114	Beldar	day	645.00
0367	Cement	tonne	5,000.00
0368	White Cement	tonne	11,200.00
0773	Unslaked lime	quintal	300.00
0784	Marble dust/ powder	cum	1,130.00
0811	Mud (dry)	cum	165.00
0982	Coarse sand	cum	1,500.00
0983	Fine sand	cum	900.00
1159	Stone dust	cum	1,100.0
1182	Surkhi	cum	700.00
2203	Carriage of Coarse sand	cum	163.93
2208	Carriage of Lime	cum	163.93
2209	Carriage of Cement	tonne	145.72
2261	Carriage of Fine sand	cum	163.93
2267	Carriage of Stone dust	cum	163.93
2268	Carriage of Marble dust and/or marble chips	cum	163.93
9999	Sundries	L.S.	2.12



SUB HEAD : 4.0			
CONCRETE WORK			
BASIC RATES (SH: 4.0 CONCRETE WORK)			
Code No.	Description	Unit	Rate
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	day	800.00
0004	Production cost of concrete by batch mix plant	cum	400.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	210.00
0011	Hire charges of Pump set of capacity 4000 litres/hour	day	700.00
0012	Vibrator (Needle type 40 mm)	day	350.00
0029	Carriage of concrete by transit mixer	km/cum	37.30
0101	Bhisti	day	714.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0116	Fitter (grade 1)	day	784.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0131	Painter	day	714.00
0155	Mason (average)	day	749.00
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	650.00
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	1300.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	1400.00
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	1350.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	1350.00
0309	Paving bitumen of grade VG-10 of approved quality	tonne	25614.00
0367	Portland Cement	tonne	5000.00
0370	Coal (steam)	quintal	440.00
0771	Kerosene oil	litre	50.00
0982	Coarse sand	cum	1500.00
0983	Fine sand	cum	900.00
1213	Water proofing materials	kilogram	35.00
1980	Fly ash	cum	11.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	163.93
2203	Carriage of Coarse sand	cum	163.93
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	178.19
2209	Carriage of Cement	tonne	145.72
2211	Carriage of Tar / Bitumen	tonne	163.93
2260	Carriage of Brick aggregate	cum	178.19
2261	Carriage of Fine sand	cum	163.93
2262	Carriage of Flyash	cum	163.93
7318	Plasticizer / super plasticizer	kilogram	29.00
7319	Wall form panel 1250x500 mm	each	860.00
7326	Corner angle 45x45x5 mm 1.50 m long	each	240.00
7327	100 mm channel shoulder 2.5 m long	each	910.00

7328	Double clip (bridge clip)	each	76.00
7329	Single clip	each	59.00
7330	M.S. tube 40 mm dia	metre	215.00
7331	Wall form panel 1250x450 mm	each	860.00
7332	Corner angle 45x45x5 mm 2.50 m long	each	255.00
7333	Column clamp 450x1070 mm	each	965.00
7334	Prop 2 m ( 2-3.5 m)	each	635.00
8732	Synthetic ployster triangular fibre of length 12 mm,	kg	370.00
9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

4.0 CONCRETE WORK			
Code No	Description	Unit	Rate
CEMENT CONCRET (CAST IN SITU)			
4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :		
4.1.2	1:1½:3 (1 Cement: 1½ coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	5,448.56
4.1.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	cum	5,155.61
4.1.4	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size).	cum	5,058.87
4.1.5	1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	cum	4,783.38
4.1.6	1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size).	cum	4,669.18
4.1.7	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	cum	4,428.24
4.1.8	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size).	cum	4,235.46
4.1.9	1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size).	cum	3,962.32
4.2	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing		
4.2.1	1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	6,855.63
4.2.2	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	cum	6,562.64
4.2.3	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	cum	6,190.42
4.2.4	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size).	cum	5,633.29
4.3	Centering and shuttering including strutting, propping etc. and removal of form work for :		
4.3.1	Foundations, footings, bases for columns	sqm	215.57
4.3.2	Retaining walls, return walls, walls (any thickness) including attached pilasters, buttresses, plinth and string courses fillets, kerbs and steps etc.	sqm	468.69

4.3.3	Columns, piers, abutments, pillars, posts and struts	sqm	562.98
4.4	Providing and laying cement concrete in kerbs, steps and the like at or near ground level excluding the cost of centering, shuttering and finishing		
4.4.1	1:1½:3 (1 Cement: 1½ coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	5,448.56
	CEMENT CONCRETE PRECAST		
4.5	Providing and fixing up to floor five level precast cement concrete string or lacing courses, copings, bed plates, anchor blocks, plain window sills, shelves, louvers, steps, stair cases, etc., including hoisting and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand),cost of required Centering complete.		
4.5.1	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size).	cum	6,494.43
4.6	Providing and fixing at or near ground level precast		
4.6.1	1:1½:3 (1 Cement: 1½ coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	5,691.46
4.7	Providing and fixing up to floor five level precast cement concrete solid block, including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete :		
4.7.1	1:1½:3 (1 Cement: 1½ coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	11,033.72
4.8	Providing and fixing up to floor five level precast cement concrete hollow block, including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete.		
4.8.1	1:1½:3 (1 Cement: 1½ coarse sand 3 graded stone aggregate 20 mm nominal size).	cum	8,823.78
4.9	Precasting and placing in position 125 mm dia Bollards 600 mm high of required shape including providing M.S. Pipe Sleeve 50 mm dia 300 mm long in the Bollard and M.S. Pipes 40 mm dia and 450mm long with 150x150x6mm M.S. plate welded at bottom and embedded 150mm in cement concrete 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), including necessary excavation of size 250x250x450mm deep for the same in bitumen/concrete pavement at specified spacing.	each	549.99
	DAMP-PROOF COURSE		

4.10	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size)	sqm	259.60
4.11	Providing and laying damp-proof course 50mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand) : 4 graded stone aggregate 20mm nominal size).	sqm	316.58
4.12	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	per 50 kg cement	40.01
4.13	Providing & applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	sqm	79.70
13.70.1	MISCELLANEOUS		
4.14	Extra for concrete work in superstructure above floor V level for each four floors or part thereof.	cum	906.12
4.15	Extra for laying concrete in or under water and/or liquid mud including cost of pumping or bailing out water and removing slush etc. complete.	cum per meter depth	633.85
13.71.1	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	sqm	477.16
4.17	Extra for addition of synthetic Polyester triangular fibre of length 12mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 in cement concrete/RCC/Flooring/water retaining structures by using 125gms of synthetic Polyester triangular fibre for 50 Kg cement used as per directions of Engineer-in-Charge.	Per Bag of 50 Kg of cement	43.33



4.18	Providing and laying in position ready mixed plain cement concrete, using fly ash and cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge. sand and aggregate derived from natural sources.		
	Note : (1) Excess/less cement used than specified in this item is payable/ recoverable separately. (2) Fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS : 456. Uniform blending with cement is to be ensured in accordance with clauses 5.2 and 5.2.1 of IS: 456 - 2000 in the items of BMC and RMC."		
4.18.1	All works upto plinth level:		
4.18.1.1	M-15 grade plain cement concrete (cement content considered @ 240 kg/cum)	cum	5,722.33
4.18.1.2	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	cum	5,623.24
4.18.2	All works above plinth and upto floor V level:		
4.18.2.1	M-15 grade plain cement concrete (cement content considered @ 240 kg. /cum)	cum	6,858.01
4.18.2.2	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	cum	6,758.92

4.19	Providing and laying in position ready mixed plain cement concrete, with cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, including the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/retard setting of concrete, improve workability without impairing strength and durability as per direction of the		
4.19.1	All works upto plinth level :		
4.19.1.1	M-15 grade plain cement concrete (cement content considered @ 240 kg/cum)	cum	5,599.27
4.19.1.2	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	cum	4,972.07
4.19.2	All works above plinth and upto floor V level :		
4.19.2.1	M-15 grade plain cement concrete. (cement content considered @ 240 kg. /cum)	cum	6,734.91
4.19.2.2	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	cum	6,107.75

SUB HEAD : 5.0			
REINFORCED CEMENT CONCRETE			
BASIC RATES (SH: 5.0 REINFORCED CEMENT CONCRETE)			
Code No	Description	Unit	Rate
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	day	800.00
0004	Production cost of concrete by batch mix plant	cum	400.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	210.00
0011	Hire charges of Pump set of capacity 4000	day	700.00
0012	Vibrator (Needle type 40 mm)	day	350.00
0025	Hire and running charges of light crane	day	3500.00
0026	Hire and running charges of bentonite pump	day	3000.00
0029	Carriage of concrete by transit mixer	km/cum	37.30
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	1300.00
0066	Batching and Mixing Plant @ 75 cum per hour	hour	2400.00
0070	Generator 100 KVA/125 KVA	hour	300.00
0082	Excavation of Diaphragm wall by Mechanical Grab	sqm	1500.00
0101	Bhisti	day	714.00
0102	Blacksmith 1st class	day	784.00
0103	Blacksmith 2nd class	day	714.00
0112	Carpenter 2nd class	day	714.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0116	Fitter (grade 1)	day	784.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0126	Mason (for ornamental stone work) 1st class	day	784.00
0128	Mate	day	714.00
0131	Painter	day	714.00
0155	Mason (average)	day	749.00
0236	Multi purpose fibre (high impact poly propylene reinforced) cement board 6 mm thick	sqm	210.00
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	1300.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	1400.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	1350.00
0302	Safeda ballies 125 mm diameter	metre	40.00
0309	Paving bitumen of grade VG-10 of approved quality	tonne	25614.00
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	34790.00
0314	Bitumen hot sealing compound : grade A	kilogram	29.00
0316	Bitumen solution primer of approved quality	litre	47.00
0339	Flame retardant face insulating, Impregnated fibre board 12 mm thick	sqm	375.00
0349	Curing compound	litre	38.00

0367	Portland Cement	tonne	5000.00
0370	Coal (steam)	quintal	440.00
0596	Bright finished or black enameled mild steel butt hinges 75x47x1.70 mm	10 Nos	56.00
0639	Bright finished or black enameled mild steel screws 25 mm	100 Nos	40.00
0768	Cement Concrete Jali 50 mm thick	sqm	400.00
0769	Cement Concrete Jali 40 mm thick	sqm	350.00
0770	Cement Concrete Jali 25 mm thick	sqm	275.00
0967	Copper plate	kilogram	527.00
0982	Coarse sand	cum	1500.00
0983	Fine sand	cum	900.00
0992	Galvanised steel plain sheets	quintal	5000.00
1004	Average rate of Mild steel round bars for reinforcement	quintal	4850.00
1005	Twisted steel/ deformed TMT bars Fe-500D	quintal	4900.00
1015	Mild steel expanded metal 20x60 mm strands	sqm	280.00
1021	Hard drawn steel wire fabric size 75 X 25 mm mesh of weight not less than 7.75 kg/sq.m	sqm	430.00
1034	Bolts and nuts up to 300 mm in length	quintal	5200.00
1197	Second class kail wood in scantling	10 cudm	260.00
1198	Second class kail wood in planks	10 cudm	260.00
1215	Welding by electric plant	cm	2.00
1223	Hard drawn steel wire (Fusion bonded epoxy for anti corrosive coating).	quintal	150.00
1224	Hard drawn steel wire	quintal	4800.00
1225	Mild steel flat strap fitting	quintal	4120.00
1980	Fly ash	cum	11.00
2200	Carriage of Steam coal	tonne	187.35
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	163.93
2203	Carriage of Coarse sand	cum	163.93
2204	Carriage of Timber	cum	187.35
2205	Carriage of Steel	tonne	145.72
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	178.19
2209	Carriage of Cement	tonne	145.72
2211	Carriage of Tar / Bitumen	tonne	163.93
2261	Carriage of Fine sand	cum	163.93
2262	Carriage of Flyash	cum	163.93
2273	Carriage of A.C.sheet and accessories	tonne	145.72
2302	Carriage of G.I. sheet and accessories	tonne	145.72
2391	Strips-Aluminium fluted 3.15 mm thick and 150 mm wide	metre	286.00
2392	Strips Aluminium fluted 3.15 mm thick and 200 mm wide	metre	381.00
2393	1 mm thick Stainless Steel Cover plate grade 304	kg	286.00
2394	Coupler 16 mm dia	each	31.00

2395	Coupler 20 mm dia	each	41.00
2396	Coupler 25 mm dia	each	72.00
2397	Coupler 28 mm dia	each	83.00
2398	Coupler 32 mm dia	each	114.00
2399	Complete Roof Joint of 100 mm	metre	2912.00
2400	Complete Roof Joint of 150 mm	metre	3328.00
2401	Complete Roof Joint of 200 mm	metre	4160.00
2402	Epoxy adhesive	kg	156.00
2403	Floor Joint of 100 mm	metre	3193.00
2404	Floor Joint of 150 mm	metre	4120.00
2405	Floor Joint of 200 mm	metre	5562.00
2409	Wall Joint of 100 mm	metre	623.00
2410	Wall Joint of 150 mm	metre	2472.00
2411	Wall Joint of 200 mm	metre	2884.00
2447	Hollock ballies 125 mm diameter	metre	36.00
7183	Bentonite	tonne	2800.00
7318	Plasticizer / super plasticizer	kilogram	29.00
7319	Wall form panel 1250x500 mm	each	860.00
7320	Tie bolt 12 mm dia 100 mm length	each	38.00
7321	Tie bolt 12 mm dia 150 mm length	each	48.00
7322	Tie bolt 20 mm dia 150 mm length	each	57.00
7323	Tie bolt 20 mm dia 225 mm length	each	67.00
7324	Spring coil 12 mm	each	15.00
7325	Plastic cone 12 mm dia	each	15.00
7326	Corner angle 45x45x5 mm 1.50 m long	each	240.00
7327	100 mm channel shoulder 2.5 m long	each	910.00
7328	Double clip (bridge clip)	each	76.00
7329	Single clip	each	59.00
7330	M.S. tube 40 mm dia	metre	215.00
7331	Wall form panel 1250x450 mm	each	860.00
7332	Corner angle 45x45x5 mm 2.50 m long	each	255.00
7333	Column clamp 450x1070 mm	each	965.00
7334	Prop 2 m ( 2-3.5 m)	each	635.00
7342	Adjustable span ESO+SI (2.35-3.40)	each	1480.00
7343	Adjustable telescopic prop 3 m (2.02-3.75 m)	each	955.00
7344	Beam clamp 300-380 mm (450-1070 mm)	each set	355.00
7345	Prop 4 m	each	910.00
7346	Double coupler	each	46.00
8647	Stainless steel screws 30 mm x4 mm	100 Nos	35.84
8659	Water proof ply 12 mm thick	sqm	525.00
8953	Micro Silica	kg	28.00
8954	Stop end tubes for diaphragm wall 600 mm dia.	sqm	4.50
8955	Driving end tubes for diaphragm wall 600 mm dia.	sqm	72.00
9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

<b>5.0 REINFORCED CEMENT CONCRETE</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
	CAST IN SITU		
5.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :		
5.1.2	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	5854.94
5.1.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	cum	5561.96
5.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :		
5.2.2	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	7129.54
5.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	7503.51
5.4	Providing and laying up to floor five level reinforced cement concrete in kerbs, steps and the like excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	6861.23
5.5	Reinforced cement concrete work in arches, archribs, domes, vaults, shells, folded plate and roofs having slope more than 15° up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	7903.84

5.6	Reinforced cement concrete work in chimneys, shafts, up to floor five level , excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand 3 graded stone aggregate 20 mm nominal size).	cum	7286.58
5.7	Reinforced cement concrete work in well-steining, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	5496.89
5.8	Reinforced cement concrete work in vertical and horizontal fins individually or forming box louvers, facias and eaves boards above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1½:3 (1 cement : 1½ coarse sand :3 graded stone aggregate 20mm nominal size).3 graded stone aggregate 20mm nominal size).	cum	6508.39
FORM WORK			
5.9	Centering and shuttering including strutting, propping etc. and removal of form for all heights :		
5.9.1	Foundations, footings, bases of columns, etc. for mass concrete	sqm	215.57
5.9.2	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	sqm	468.69
5.9.3	Suspended floors, roofs, landings, balconies and access platform	sqm	536.59
5.9.4	Shelves (Cast in situ)	sqm	536.59
5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	sqm	425.85
5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts	sqm	562.98
5.9.7	Stairs, (excluding landings) except spiral-staircases	sqm	460.43
5.9.8	Spiral staircases (including landing)	sqm	456.96
5.9.9	Arches, domes, vaults up to 6 m span	sqm	1,278.38
5.9.10	Extra for arches, domes, vaults exceeding 6 m span	sqm	402.68
5.9.11	Chimneys and shafts	sqm	468.69
5.9.12	Well steining	sqm	172.48
5.9.13	Vertical and horizontal fins individually or forming box louvers band, facias and eaves boards	sqm	770.28

5.9.14	Small lintels not exceeding 1.5 m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like	sqm	215.57
5.9.15	Edges of slabs and breaks in floors and walls		
5.9.15.1	Under 20 cm wide	metre	127.33
5.9.15.2	Above 20 cm wide	sqm	540.47
5.9.16	Cornices and mouldings	sqm	538.52
5.9.17	Small surfaces such as cantilever ends, brackets and ends of steps, caps and bases to pilasters and columns and the like	sqm	579.01
5.9.18	Weather shade, Chajjas, corbels etc., including edges	sqm	570.47
5.9.19	Suspended floors, roofs, landings, balconies and access platform. with water proof ply 12 mm thick	sqm	597.63
5.9.20	Lintels, beams, plinth beams, girders, bressumers and antilevers. with water proof ply 12 mm thick	sqm	489.62
5.10	Providing and fixing tie bolt, spring coil and plastic cone in wall shuttering complete as per the direction of Engineer-in-charge.		
5.10.1	12 mm dia. & 100 mm length	each set	95.03
5.10.2	12 mm dia. & 150 mm length	each set	104.37
5.10.3	20 mm dia. & 150 mm length	each set	112.81
5.10.4	20 mm dia. & 225 mm length	each set	122.19
5.11	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured).		
5.11.1	Suspended floors, roofs, landing, beams and balconies (Plan area to be measured)	sqm	223.48
PRE-CAST RCC			
5.12	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like, including the cost of required centering, shuttering but, excluding cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand 3 graded stone aggregate 20 mm nominal size).	cum	6,771.45



5.13	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in small lintels not exceeding 1.5m clear span up to floor five level, including the cost of required centering, shuttering but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand 3 graded stone aggregate 20 mm nominal size).	cum	9,507.30
5.14	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete in mouldings as in cornices, windows sills etc, including setting in cement mortar 1:3 (1 cement : 3 coarse sand)cost of required centering, shuttering but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand 3 graded stone aggregate 20 mm nominal size).	cum	11,044.18
5.15	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete in lintels, beams and bressumers, including setting in cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering and shuttering but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	cum	8,624.88
5.16	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete in shelves, including setting in cement mortar 1:3 (1cement : 3 coarse sand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but ,excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	13,051.22
5.17	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete in vertical & horizontal fins, individually or forming box louvers, setting in cement mortar 1:2 (1 cement : 2 coarse sand), including the cost of required centering, shuttering but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	7,571.97

5.18	Providing precast cement concrete Jali 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6mm nominal size), reinforced with 1.6 mm dia mild steel wire, including centering and shuttering, roughening cleaning, fixing and finishing with cement mortar 1:3 (1 cement: 3 fine sand) etc. complete, excluding plastering of the jambs, sills and soffits.		
5.18.1	50 mm thick	sqm	1,106.63
5.18.2	40 mm thick	sqm	1,001.21
5.18.3	25 mm thick	sqm	904.02
	ENCASING ROLLED STEEL SECTION		
5.19	Encasing rolled steel sections, in beams and columns, with cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size including centering and shuttering complete but, excluding cost of reinforcement.	cum	9,934.37
5.20	Encasing rolled steel section in grillages with cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size, including centering and shuttering but, excluding cost of expanded metal and hangers.	cum	6,212.26
5.21	Extra for providing and fixing expanded metal mesh of size 20x60 mm and strands 3.25 mm wide 1.6 mm thick weighing 3.64 kg per sqm for encasing of rolled steel sections in beams, columns and grillages, excluding cost of hangers	sqm	314.16
STEEL REINFORCEMENT			
5.22	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position		
5.22.1	Mild steel and Medium Tensile steel bars	Kg	62.27
5.22.2	Hard drawn steel wire	Kg	61.25
5.22.3	Cold twisted bars	Kg	62.76
5.22.4	Hot rolled deformed bars	Kg	62.76
5.22.5	Hard drawn steel wire fabric	Kg	65.87
5.22.6	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	62.76
5.22A	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.		
5.22A.1	Mild steel and Medium Tensile steel bars	Kg	62.27
5.22A.2	Hard drawn steel wire	Kg	61.25
5.22A.3	Cold twisted bars	Kg	62.76
5.22A.4	Hot rolled deformed bars	Kg	62.76

5.22A.5	Hard drawn steel wire fabric	Kg	65.87
5.22A.6	Thermo-Mechanically Treated bars of grade Fe-500	Kg	62.76
C			
5.23	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge." (Note :- Cement content considered in this item is @ 330 kg/cum." Excess/ less cement used as per design mix is payable/recoverable separately).		
5.23.1	All works upto plinth level	cum	6,078.66
5.23.2	All works above plinth level upto floor V level	cum	7,214.34
5.24	Extra for providing richer mixes at all floor levels.		
5.24.1	Providing M-30 grade concrete instead of M-25	cum	7,313.43
5.24.2	Providing M-35 grade concrete instead of M-25	cum	7,412.55
5.24.3	Providing M-40 grade concrete instead of M-25	cum	7,511.63
5.25	Add for using extra cement in the items of design mix over and above the specified cement content therein.	quintal	481.92
5.26	Providing and placing in position precast reinforced cement concrete waffle units, square or rectangular, as per design and shape for floors and roofs in 1:1½:3 (1 Cement : 1½ coarse sand : 3 graded stone aggregate 10 mm nominal size), including flush or deep ruled pointing at joints with Cement mortar 1:2 (1 Cement : 2 Fine sand) making necessary holes of required sizes for carrying through service lines etc., providing steel hooks for lifting etc, form work in precasting, handling, hoisting, centering and erection complete for all floor levels but, excluding the cost of reinforcement.	cum	19,588.63

5.27	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying , excluding the cost of centering, shuttering finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete,improve workability without impairing strength and durability as per direction of the Engineer-in-charge.		
(Note :- Cement content considered in this item is @ 330 kg/cum.Excess/less cement used as per design mix is payable/recoverable separately)			
5.27.1	All works upto plinth level	cum	5,950.32
5.27.2	All works above plinth level upto floor V level	cum	7,086.00
5.28	Extra for R.C.C./ B.M.C/ R.M.C. work above floor V level for each four floors or part thereof.	cum	196.67
5.29	Supplying and applying pre tested and approved		
5.29.1	Non pigmented wet curing compound	sqm	40.25

<b>SUB HEAD : 6.0</b>			
<b>BRICK AND BLOCK WORK</b>			
BASIC RATES (SH: 6.0 BRICK AND BLOCK WORK)			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0011	Hire charges of Pump set of capacity 4000 litres/hour	day	700.00
0037	Mobile crane capacity (10 to 12 tonne)	day	4500.00
0101	Bhisti	day	714.00
0112	Carpenter 2nd class	day	714.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0155	Mason (average)	day	749.00
0322	Bitumen felt :Type 3 grade 1	sqm	971.45
0357	Polymer modified adhesive mortar	kilogram	14.00
0982	Coarse sand	cum	1500.00
1002	Mild steel round bar 12 mm dia and below	quintal	4850.00
1008	Flats up to 10 mm in thickness	quintal	4850.00
1034	Bolts and nuts up to 300 mm in length	quintal	5200.00
1197	Second class kail wood in scantling	10 cudm	260.00
1225	Mild steel flat strap fitting	quintal	4120.00
1235	Diesel	litre	80.87
1984	Common burnt clay F.P.S. bricks tile class	1000 Nos	4600.00
1986	Common burnt clay modular bricks class designation 12.5	1000 Nos	5200.00
2201	Carriage of Bricks	1000 Nos	437.15
2204	Carriage of Timber	cum	187.35
14	Carriage of Steel	tonne	145.72
2207	Carriage of Brick tiles	1000 Nos	262.29
2208	Carriage of Lime	cum	163.93
2302	Carriage of G.I. sheet and accessories	tonne	145.72
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5	1000 Nos	4590.00
7008	F.P.S. (non modular) clay fly ash bricks class	1000 Nos	4500.00
7736	Extruded burnt flyash clay sewer bricks conforming to I.S 4885	1000 Nos	5000.00
7737	Fly ash bricks conforming to I.S. 12894	1000 Nos	3950.00
7738	Calcium Silicate Bricks machine moulded conforming to I.S. 4139	1000 Nos	5050.00
7900	Modular common burnt clay bricks of class	1000 Nos	3800.00
7901	Machine moulded perforated common burnt clay FPS (non modular) bricks of class designation 12.5	1000 Nos	4200.00
7902	Machine moulded common burnt clay modular perforated bricks of class designation 12.5	1000 Nos	4800.00
7903	Machine moulded common burnt clay FPS (non modular) bricks of class designation 12.5	1000 Nos	4700.00

7904	Machine moulded common burnt clay tile bricks of class designation 12.5	1000 Nos	4600.00
8655	Autoclaved aerated cement (AAC) blocks	cum	2650.00
8656	Gypsum panel 666 X 500 X 100 mm size	sqm	480.00
8657	Bonding plaster for Gypsum panel	kg	25.50
9999	Sundries	L.S.	2.12

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<b>6.0 BRICK AND BLOCK WORK</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
6.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:		
6.1.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	4,817.40
6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	4,660.78
6.2	Brick work with common burnt clay modular bricks of class designation 7.5 in foundation and plinth in:		
6.2.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	4,022.76
6.2.2	Cement Mortar 1:6 (1 cement : 6 coarse sand).	cum	3,884.97
6.3	Brick work with common burnt clay machine moulded perforated bricks of class designation 12.5 conforming to IS: 2222 in superstructure above plinth level up to floor five level in cement mortar 1:6 (1 cement : 6 coarse sand) :		
6.3.1	With F.P.S.(non modular) bricks	cum	5,621.42
6.3.2	With Modular bricks	cum	5,470.26
6.4	Brick work with common burnt clay F.P.S. (non		
6.4.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	5,958.47
6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	5,801.85
6.5	Extra for brick work / AAC block masonry / Tile brick masonry in superstructure above floor V level, for each four floors or part thereof by mechanical means.	cum	99.40
<b>HALF BRICK MASONRY</b>			
6.6	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in:		
6.6.1	Cement mortar 1:3 (1 cement : 3 coarse sand)	sqm	604.03
6.6.2	cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	586.50
6.7	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.		
6.7.1	Cement mortar 1:3 (1 cement :3 coarse sand)	sqm	730.17
6.7.2	Cement mortar 1:4 (1 cement :4 coarse sand)	sqm	712.64
6.8	Extra for half brick masonry in superstructure, above floor V level for every four floors or part thereof by mechanical means.	sqm	8.82
6.9	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	sqm	60.52

SUB HEAD : 7.0			
STONE WORK			
BASIC RATES (SH: 7.0 STONE WORK)			
Code No.	Description	Unit	Rate
0011	Hire charges of Pump set of capacity 4000 litres/hour	day	700.00
0100	Bandhani	day	714.00
0101	Bhisti	day	714.00
0102	Blacksmith 1st class	day	784.00
0103	Blacksmith 2nd class	day	714.00
0112	Carpenter 2nd class	day	714.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0116	Fitter (grade1)	day	784.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0125	Mason (for plain stone work) 2nd class	day	714.00
0126	Mason (for ornamental stone work) 1st class	day	784.00
0139	Skilled Beldar (for floor rubbing etc.)	day	714.00
0367	Portland Cement	tonne	5,000.00
0373	Cramp Gun metal 25x6x300 mm	each	80.00
0873	Copper pins 6 mm dia 7.5 cm long	each	10.00
1002	Mild steel round bar 12 mm dia and below	quintal	4,850.00
1007	Structural steel such as tees, angles channels and R.S. joists	quintal	4,950.00
1034	Bolts and nuts up to 300 mm in length	quintal	5,200.00
1154	Through and bond stone	100 Nos	5,000.00
1157	Stone for masonry work	cum	1,100.00
1160	Red sand stone block	10 cudm	80.00
1161	White sand stone block	10 cudm	205.00
1163	White sand stone slab 75 mm thick (un-dressed)	sqm	800.00
1164	Red sand stone slab 40 mm thick (un-dressed)	sqm	230.00
1165	White sand stone slab 40 mm thick (un-dressed)	sqm	250.00
1166	Red sand stone slab 30 mm thick (un-dressed)	sqm	220.00
1169	Kota stone slab 25mm thick (rough chiseled)	sqm	250.00
1197	Second class kail wood in scantling	10 cudm	260.00
1215	Welding by electric plant	cm	2.00
1225	Mild steel flat strap fitting	quintal	4,120.00
1237	Cutting marble or sand stone slab up to 50 mm thick by mechanical device	metre	10.00
2204	Carriage of Timber	cum	187.35
2215	Carriage of Soling stone & masonry stone	cum	192.86
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	145.72
2302	Carriage of G.I. sheet and accessories	tonne	145.72
2750	8 mm thick granite stone tiles (mirror polished of all shades)	sqm	690.00



4009	Mild steel tubes hot finished welded type	kilogram	60.00
7339	Stainless steel cramp	kilogram	290.00
7439	8mm thick (mirror polished tiles machine cut edge) Raj Nagar white	sqm	450.00
8683	Red sand stone gang saw cut 30 mm thick	sqm	476.00
8684	White sand stone gang saw cut 30 mm thick	sqm	560.00
8698	Stainless steel cramps (weight 260 grams) with nuts, bolts and washer for dry stone cladding	each	115.00
9977	Carriage	L.S.	2.12
9999	Sundries	L.S.	2.12

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<b>7.0 STONE WORK</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
<b>RANDOM RUBBLE MASONRY</b>			
7.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with :		
7.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	4,657.42
7.2	Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, ceiling level and the like.		
7.2.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	5,792.99
7.3	Extra for random rubble masonry with hard stone in :		
7.3.1	Square or rectangular pillars	cum	550.94
7.3.2	Circular pillars	cum	1,512.14
7.4	Extra for random rubble masonry with hard stone curved on plan for a mean radius not exceeding 6 m.	cum	621.81
<b>COURSED RUBBLE MASONRY</b>			
7.5	Coursed rubble masonry (first sort) with hard stone in foundation and plinth with :		
7.5.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	5,540.15
7.6	Coursed rubble masonry (second sort) with hard stone in foundation & plinth with :		
7.6.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	5,166.25
7.7	Coursed rubble masonry with hard stone (first or second sort) in superstructure above plinth level and upto floor five level.		
7.7.1	Masonry work (first sort), in cement mortar 1:6 (1 cement : 6 coarse sand)	cum	6,656.06
7.7.2	Masonry work (second sort), in cement mortar 1:6 (1 cement: 6 coarse sand)	cum	6,282.15
7.8	Extra for coursed rubble masonry with hard stone (first or second sort) in:		
7.8.1	Square or rectangular pillars	cum	611.14
7.8.2	Circular pillars	cum	1,715.63
7.9	Extra for coursed rubble masonry with hard stone (first or second sort) curved on plan for a mean	cum	674.03

<b>SUB HEAD : 8.0</b>			
<b>MARBLE &amp; GRANITE WORK</b>			
BASIC RATES (SH: 8.0 MARBLE & GRANITE WORK)			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0013	Machine for rubbing of floors	day	300.00
0019	Hand Grinder for mirror polish	day	250.00
0100	Bandhani	day	714.00
0101	Bhisti	day	714.00
0102	Blacksmith 1st class	day	784.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0116	Fitter (grade 1)	day	784.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0126	Mason (for ornamental stone work) 1st class	day	784.00
0128	Mate	day	714.00
0139	Skilled Beldar (for floor rubbing etc.)	day	714.00
0367	Portland Cement	tonne	5,000.00
0368	White Cement	tonne	11,200.00
0874	Black colour dark shade pigment	kilogram	70.00
1034	Bolts and nuts up to 300 mm in length	quintal	5,200.00
1239	18 mm thick Flamed finish granite stone slab	sqm	1,000.00
1240	18 mm thick Italian Marble stone slab, Perlato (slab area up to 0.5 sqm).	sqm	3209.00
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	145.72
2750	8 mm thick granite stone tiles (mirror polished of all shades)	sqm	690.00
2751	8 mm thick marble tiles (polished) Raj Nagar	sqm	400.00
7244	Table rubbed polished stone 18 mm thick (75x50cm) Agaria Marble stone - 18 mm thick	sqm	1,500.00
7245	Table rubbed polished stone 18mm thick (75x50cm) Granite stone-18 mm thick	sqm	1,800.00
7295	Granite of any colour, 18 mm thick (slab area upto 0.50 sqm)	sqm	1,800.00
7297	Granite of any colour, 18 mm thick (slab area above 0.50 sqm)	sqm	1,000.00
7338	Gun metal cramp	kilogram	315.00
7339	Stainless steel cramp	kilogram	290.00
7430	Wedge expansion hold fastener 1/4" or 6 mm	each	8.00
7431	Wedge expansion hold fastener 3/8" or 10 mm	each	10.00
7432	Wedge expansion hold fastener 1/2" or 12 mm	each	24.00
7452	Raj nagar plain white marble (table rubbed and polished) 18 mm thick (slab area upto 0.50 sqm)	sqm	538.00

7453	Raj nagar plain white marble (table rubbed and polished) 18 mm thick (slab area more than 0.50 sqm)	sqm	650.00
9977	Carriage	L.S.	2.12
9999	Sundries	L.S.	2.12

8.0 MARBLE & GRANITE WORK			
Code No.	Description	Unit	Rate
8.1	Marble work gang saw cut (polished and machine cut) of thickness 18 mm for wall lining (veneer work), backing filled with a grout of average 12 mm thick in cement mortar 1:3 (1 cement : 3 coarse sand), including pointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with an admixture of pigment to match the marble shade (To be secured to the backing by means of cramps, which shall be paid for separately).		
8.1.1	Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble.		
8.1.1.1	Area of slab upto 0.50 sqm	sqm	3,379.18
8.1.1.2	Area of slab over 0.50 sqm	sqm	3,498.67
8.2	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.		
8.2.1	Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble		
8.2.1.1	Area of slab upto 0.50 sqm	sqm	2,034.52
8.2.1.2	Area of slab over 0.50 sqm	sqm	1,847.62
8.2.2	Granite of any colour and shade		
8.2.2.1	Area of slab upto 0.50 sqm	sqm	3,275.55
8.2.2.2	Area of slab over 0.50 sqm	sqm	3,097.75
8.3	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.		
8.3.1	Marble work	metre	171.43
8.3.2	Granite work	metre	293.20
8.4	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete.	metre	332.89

8.5	Extra for providing opening of required size & shape for wash basin/kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	each	565.71
8.6	Mirror polishing on marble work/Granite work/stone work where ever required to give high gloss finish complete.	sqm	292.32
8.7	Stone tile (polished) work for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete.		
8.7.1	8mm thick		
8.7.1.1	Raj nagar plain white marble/ Udaipur green marble/ Zebra black marble	sqm	1,895.46
8.7.1.2	Granite of any colour and shade	sqm	2,173.85
8.8	Providing and fixing machine cut, mirror/ eggshell polished , Marble stone work for wall lining (veneer work) including dado, skirting, risers of steps etc., in required design and pattern wherever required, stones of different finished surface texture, on 12 mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) laid and jointed with white cement slurry @ 3.3 kg/sqm including pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing, polishing etc. all complete as per Architectural drawings, and as directed by the Engineer-in-Charge.		
8.8.1	18 mm thick Italian Marble stone slab, Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	sqm	6,495.27
8.9	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge :		
8.9.1	Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	1,812.93

8.10	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building, all complete as per the architectural drawings, with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand), laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.		
8.10.1	Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	2,736.16

<b>SUB HEAD : 9.0</b>			
<b>WOOD &amp; PVC WORK</b>			
BASIC RATES (SH: 9.0 WOOD AND P.V.C. WORK)			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0100	Bandhani	day	714.00
0102	Blacksmith 1st class	day	784.00
0103	Blacksmith 2nd class	day	714.00
0111	Carpenter 1st class	day	784.00
0112	Carpenter 2nd class	day	714.00
0114	Beldar	day	645.00
0116	Fitter (grade 1)	day	784.00
0119	Glazier	day	714.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0130	Mistry	day	784.00
0131	Painter	day	714.00
0156	Carpenter (average)	day	749.00
0162	Labour for fabrication of uPVC extruded casement/ sliding windows and doors including drilling holes, fixing of fittings & hardwares, hire charges of drill machine and electricity charges etc.	sqm	534.00
0163	Labour for installation of uPVC extruded casement/ sliding windows and doors including scaffolding	sqm	773.00
0237	Multi purpose fibre (high impact poly propylene reinforced) cement board 8 mm thick	sqm	220.00
0243	Multipurpose cement bonded wood particle board 8 mm thick conforming to IS : 14276	sqm	215.00
0305	Bamboo 25 mm dia 2.5 metre long	score	400.00
0341	Flat pressed 3 layer particle board (medium density) Grade 1, 12 mm thick	sqm	288.00
0346	Extra for veneered particle board with Teak veneering on one side and commercial veneering on	sqm	230.00
0347	Extra for veneered particle board with Commercial veneering on both sides	sqm	155.00
0348	Extra for veneered particle board with Teak veneering on both sides	sqm	500.00
0378	Brass butt hinges (light/ordinary type) : 125x70x4 mm	10 Nos	775.00
0379	Brass butt hinges (light/ordinary type) : 100x70x4 mm	10 Nos	625.00
0380	Brass butt hinges (light/ordinary type) : 75x40x2.5 mm	10 Nos	380.00
0381	Brass butt hinges (light/ordinary type) : 50x40x2.5 mm	10 Nos	155.00
0382	Brass butt hinges (heavy type) : 125x85x5.5 mm(0.70 kg)	10 Nos	1,309.00



0383	Brass butt hinges (heavy type) : 100x85x5.5 mm(0.56 kg)	10 Nos	997.00
0384	Brass butt hinges (heavy type) : 75x65x4.0 mm(0.20 kg)	10 Nos	838.00
0385	Brass parliamentary hinges 150x125x27x5 mm	10 Nos	2,610.00
0386	Brass parliamentary hinges 125x125x27x5 mm	10 Nos	2,300.00
0387	Brass parliamentary hinges 100x125x27x5 mm	10 Nos	2,090.00
0388	Brass parliamentary hinges 75x100x20x3.2 mm	10 Nos	1,870.00
0400	Brass tower bolt (barrel type) 250x10 mm	each	257.00
0401	Brass tower bolt (barrel type) 200x10 mm	each	205.00
0402	Brass tower bolt (barrel type) 150x10 mm	each	154.00
0403	Brass tower bolt (barrel type) 100x10 mm	each	103.00
0408	Brass handles 125 mm with plate 175x32 mm	each	144.00
0409	Brass handles 100 mm with plate 150x32 mm	each	133.00
0410	Brass handles 75 mm with plate 125x32 mm	each	103.00
0411	Brass door latch 300x16x5 mm (0.380 kg)	each	185.00
0412	Brass door latch 250x16x5 mm (0.350 kg)	each	175.00
0413	Brass mortice latch and lock 100x65 mm with 6 levers and a pair of brass lever handles	each	400.00
0414	Brass mortice latch 100x65mm with a pair of brass lever handles	each	310.00
0423	Brass casement window fastener	each	45.00
0424	Brass casement stays (straight peg type) 300 mm weighing not less than 0.33 kg	each	126.00
0425	Brass casement stays (straight peg type) 250 mm weighing not less than 0.28 kg	each	100.00
0426	Brass casement stays (straight peg type) 200 mm weighing not less than 0.24 kg	each	95.00
0431	Brass hasps and staples (safety type) 150 mm	10 Nos	740.00
0432	Brass hasps and staples (safety type) 115 mm	10 Nos	670.00
0433	Brass hasps and staples (safety type) 90 mm	10 Nos	575.00
0438	Brass night latch	each	610.00
0447	Brass cupboard knob or wardrobe knob 50 mm	each	36.00
0449	Brass screws 50 mm	100 Nos	220.00
0450	Brass screws 40 mm	100 Nos	170.00
0451	Brass screws 30 mm	100 Nos	140.00
0452	Brass screws 25 mm	100 Nos	100.00
0453	Brass screws 20 mm	100 Nos	95.00
0555	Chromium plated Brass handles 125 mm with plate 175 x32 mm	each	160.00
0556	Chromium plated Brass handles 100 mm with plate 150 x 32 mm	each	140.00
0557	Chromium plated Brass handles 75mm with plate 125x32 mm	each	125.00
0558	Chromium plated Brass mortice latch and lock 100x65 mm with 6 levers and a pair of brass lever handles	each	470.00
0568	Chromium plated brass casement window fastener	each	90.00

0569	Chromium plated Brass casement stays (straight peg type) 300 mm weighing not less than 0.33 kg	each	140.00
0570	Chromium plated Brass casement stays (straight peg type) 250 mm weighing not less than 0.28 kg	each	120.00
0571	Chromium plated Brass casement stays (straight peg type) 200 mm weighing not less than 0.24 kg	each	100.00
0583	Chromium plated Brass Night latch	each	500.00
0584	Chromium plated Brass Wardrobe Knob 50 mm	each	80.00
0585	Chromium plated Brass screws 50 mm	100 Nos	300.00
0586	Chromium plated Brass screws 40 mm	100 Nos	290.00
0587	Chromium plated Brass screws 30 mm	100 Nos	240.00
0588	Chromium plated Brass screws 25 mm	100 Nos	180.00
589	Chromium plated Brass screws 20 mm	100 Nos	160.00
0590	Chromium plated Brass curtain rod 12 mm dia	metre	185.00
0591	Chromium plated Brass curtain rod 20 mm dia 1.25mm thick	metre	260.00
0592	Chromium plated Brass curtain rod 25 mm dia 1.25mm thick	metre	340.00
0594	Bright finished or black enameled mild steel butt	10 Nos	135.00
0595	Bright finished or black enameled mild steel butt hinges 100x58x1.90 mm	10 Nos	80.00
0596	Bright finished or black enameled mild steel butt hinges 75x47x1.70 mm	10 Nos	56.00
0597	Bright finished or black enameled mild steel butt hinges 50x37x1.50 mm	10 Nos	49.00
0608	Nickel plated bright finished mild steel piano hinges 1 mm thick 25 mm wide	metre	39.00
0635	Bright finished or black enameled mild steel screws 50 mm	100 Nos	75.00
0637	Bright finished or black enameled mild steel screws 40 mm	100 Nos	60.00
0638	Bright finished or black enameled mild steel screws 30 mm	100 Nos	45.00
0639	Bright finished or black enameled mild steel screws 25 mm	100 Nos	40.00
0640	Bright finished or black enameled mild steel screws 20 mm	100 Nos	35.00
0641	Bright finished or black enameled mild steel bolts and nuts 50x6 mm	each	5.00
0642	Oxidised mild steel butt hinges 125x65x2.12 mm	10 Nos	125.00
0643	Oxidised mild steel butt hinges 100x58x1.90 mm	10 Nos	90.00
0644	Oxidised mild steel butt hinges 75x47x1.70 mm	10 Nos	65.00
0645	Oxidised mild steel butt hinges 50x37x1.50 mm	10 Nos	55.00
0646	Oxidised mild steel parliamentary hinges 150x125x27x2.8 mm	10 Nos	335.00
0647	Oxidised mild steel parliamentary hinges 125x125x27x2.8 mm	10 Nos	300.00
0648	Oxidised mild steel parliamentary hinges	10 Nos	235.00
0649	Oxidised mild steel parliamentary hinges	10 Nos	200.00

0650	Oxidised mild steel single acting spring hinges 150	each	140.00
0651	Oxidised mild steel single acting spring hinges 125 mm	each	120.00
0652	Oxidised mild steel single acting spring hinges 100	each	100.00
0653	Oxidised mild steel double acting spring hinges 150 mm	each	160.00
0654	Oxidised mild steel double acting spring hinges 125 mm	each	140.00
0655	Oxidised mild steel double acting spring hinges 100 mm	each	120.00
0656	Nickel plated mild steel piano hinges 1 mm thick 35 mm wide	metre	40.00
0660	Oxidised mild steel sliding door bolt 300x16 mm	each	90.00
0661	Oxidised mild steel sliding door bolt 250x16 mm	each	80.00
0662	Oxidised mild steel door latch 300x20x6 mm	each	49.00
0663	Oxidised mild steel door latch 250x20x6 mm	each	39.00
0664	Oxidised mild steel tower bolt (barrel type) 250x10 mm	each	43.00
0665	Oxidised mild steel tower bolt (barrel type) 200x10 mm	each	34.00
0666	Oxidised mild steel tower bolt (barrel type) 150x10 mm	each	29.00
0667	Oxidised mild steel tower bolt (barrel type) 100x10 mm	each	20.00
0668	Oxidised mild steel handles 125 mm	each	20.00
0669	Oxidised mild steel handles 100 mm	each	15.00
0670	Oxidised mild steel handles 75 mm	each	12.00
0679	Oxidised mild steel hasps and staples (safety type) 150 mm	10 Nos	128.00
0680	Oxidised mild steel hasps and staples (safety type) 115 mm	10 Nos	108.00
0681	Oxidised mild steel hasps and staples (safety type) 90 mm	10 Nos	79.00
0682	Oxidised mild steel screws 50 mm	100 Nos	76.00
0683	Oxidised mild steel screws 40 mm	100 Nos	62.00
0684	Oxidised mild steel screws 30 mm	100 Nos	49.00
0685	Oxidised mild steel screws 25 mm	100 Nos	36.00
0686	Oxidised mild steel screws 20 mm	100 Nos	32.00
0687	Anodised Aluminium butt hinges 125x75x4 mm	10 Nos	560.00
0688	Anodised Aluminium butt hinges 125x63x4 mm	10 Nos	393.00
0689	Anodised Aluminium butt hinges 100x75x4 mm	10 Nos	393.00
0690	Anodised Aluminium butt hinges 100x63x3.2 mm	10 Nos	270.00
0691	Anodised Aluminium butt hinges 100x63x4 mm	10 Nos	324.00
0692	Anodised Aluminium butt hinges 75x63x4 mm	10 Nos	275.00
0693	Anodised Aluminium butt hinges 75x63x3.2 mm	10 Nos	226.00
0694	Anodised Aluminium butt hinges 75x45x3.2 mm	10 Nos	196.00
0696	Anodised Aluminium sliding door bolt 300x16 mm	each	147.00
0697	Anodised Aluminium sliding door bolt 250x16 mm	each	128.00

0698	Anodised Aluminium tower bolt (barrel type) 300x10 mm	10 Nos	580.00
0699	Anodised Aluminium tower bolt (barrel type) 250x10 mm	10 Nos	481.00
0700	Anodised Aluminium tower bolt (barrel type) 200x10 mm	10 Nos	383.00
0701	Anodised Aluminium tower bolt (barrel type) 150x10 mm	10 Nos	304.00
0702	Anodised Aluminium tower bolt (barrel type) 100x10 mm	10 Nos	225.00
0703	Anodised Aluminium handles 125 mm with plate 175 x 32 mm	10 Nos	324.00
0704	Anodised Aluminium handles 100 mm with plate 150 x 32 mm	10 Nos	275.00
0705	Anodised Aluminium handles 75mm with plate 125 x 32 mm	10 Nos	231.00
0706	Anodised Aluminium kicking plate 50 cm long	each	142.00
0713	Block board construction flush door with teak wood ply on both faces 35 mm thick	sqm	1800.00
0714	Block board construction flush door with teak wood ply on both faces 30 mm thick	sqm	1600.00
0715	Block board construction flush door with teak wood ply on both faces 25 mm thick	sqm	1400.00
0717	Block board construction flush door with commercial ply on both faces 35 mm thick	sqm	1000.00
0718	Block board construction flush door with commercial ply on both faces 30 mm thick	sqm	900.00
0719	Block board construction flush door with commercial ply on both faces 25 mm thick	sqm	890.00
0752	Block board construction flush door lipping 25 mm thick	sqm of door area	300.00
0753	Square vision panel in Block board construction flush door not exceeding 0.10 sqm	sqm of door area	130.00
0754	Circular vision panel in Block board construction flush door	sqm of door area	135.00
0755	Decorative type louvers in Block board construction flush door	sqm of door area	265.00
0757	Rebate cutting in block board construction flush door	sqm of door area	70.00
0759	Decorative plywood 4 mm	sqm	320.00
0763	Glue	kilogram	75.00
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	165.00
0869	Plaster of Paris	kilogram	5.00
1003	Mild steel round bar above 12 mm dia	quintal	4,750.00
1008	Flats up to 10 mm in thickness	quintal	4,850.00
1015	Mild steel expanded metal 20x60 mm strands	sqm	280.00

1021	Hard drawn steel wire fabric size 75 X 25 mm mesh of weight not less than 7.75 kg/sq.m	sqm	430.00
1022	Galvanised steel bolts & nuts 6 mm dia and 25 mm long round head with slots	10 Nos	38.00
1189	Second class teak wood in scantling	10 cudm	776.00
1190	Second class teak wood in planks	10 cudm	791.00
1199	Sal wood in scantling	10 cudm	600.00
1200	Kiln seasoned selected sheesham wood planks	10 cudm	650.00
1211	G.I. plain washer for seam bolts	100 Nos	32.00
1231	Extra for selected planks of second class teakwood	10 cudm	150.00
1238	Extra for selected planks of first class teakwood	10 cudm	150.00
2204	Carriage of Timber	cum	187.35
2205	Carriage of Steel	tonne	145.72
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10 kg/sqm)	sqm	309.00
2407	Float glass sheet of nominal thickness 5.5 mm (weight not less than 13.50 kg/sqm)	sqm	515.00
2412	Ply wood 5 ply with commercial ply on both faces 6 mm thick	sqm	306.00
2413	12 mm commercial ply	sqm	510.00
2414	18 mm thick block board with commercial ply veneering on both sides	sqm	775.00
2449	Oxidised mild steel pull bolt lock (locking bolt) of size 85 mm x42 mm with screws, bolts, nuts and washers complete	each	62.00
2451	Brass cupboard lock 6 levers of approved quality, 40 mm size	each	57.00
2452	Brass cupboard lock 6 levers of approved quality, 50 mm size	each	88.00
2453	Brass cupboard lock 6 levers of approved quality, 65 mm size	each	93.00
2454	Brass cupboard lock 6 levers of approved quality, 75 mm size	each	108.00
2455	Brass hanging type door stopper 150 mm	each	77.00
2456	Hydraulic door closer bottle type M.S. body with necessary accessories and screws complete	each	686.00
2459	Anodised Aluminium hanging type door stopper	each	20.00
2464	Anodised Aluminium pull bolt lock (locking bolt) of size 85 mm x 42 mm with screws, bolts, nuts and washers complete	each	48.00
2465	Anodised Aluminium Casement stay 250 mm	each	33.00
2466	Hollock wood in scantling	10 cudm	357.00
2468	Nickled Chromium Brass cupboard lock 40 mm size	each	63.00
2469	Nickled Chromium Brass cupboard lock 50 mm size	each	73.00

2470	Nickled Chromium Brass cupboard lock 65 mm size	each	99.00
2471	Nickled Chromium Brass cupboard lock 75 mm size	each	125.00
2480	Ply wood 5 ply with teak ply on both faces 9 mm thick	sqm	884.00
2481	Ply wood 5 ply with teak ply on one face and commercial ply on another face 9 mm thick	sqm	905.00
2483	Ply wood 7 ply with teak ply on one face and commercial ply on another face 9 mm thick	sqm	1,010.00
2484	Pre-laminated with decorative lamination on both side exterior Grade-I MDF Board 12 mm thick confirming to IS:14587	sqm	469.00
2485	Pre-laminated with decorative lamination on both side exterior Grade-I MDF Board 18 mm thick confirming to IS:14587	sqm	609.00
2486	Pre-laminated with decorative lamination one side	sqm	877.00
2487	Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade-I MDF Board 12 mm thick confirming to IS:14587	sqm	439.00
2488	Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade-I MDF Board 18 mm thick confirming to IS:14587	sqm	582.00
2489	PVC edge bending tape 2.00 mm thick	metre	21.00
2504	Kiln seasoning of timber	cum	772.00
2505	Hollock wood in planks	10 cudm	402.00
2640	Clear, toughened, interlayered, non-wired fire	sqm	25,500.00
2641	G.I. U beading of 1.6 mm thick G.I. Sheet with	metre	250.00
2642	Ceramic tape 5x20 mm size	metre	400.00
3991	Galvanized iron (1.6 ± 0.2 mm) thick reinforcement for small series casement window/door frame, sash, mullion & small series sliding window frame	metre	70.00
3992	Galvanized iron (1.6 ± 0.2 mm) thick reinforcement for big series casement window/door frame, sash, mullion, big & small series sliding window frame	metre	75.00
3993	Galvanized iron (1.6 ± 0.2 mm) thick reinforcement for big series casement door sash	metre	100.00
3994	Galvanized iron (1.6 ± 0.2 mm) thick reinforcement for big series sliding window / door sash	metre	90.00
3995	G.I fasteners 100 x 8 mm	each	15.00
4009	Mild steel tubes hot finished welded type	kilogram	60.00
7001	Brass 100mm mortice latch and lock with 6 levers without pair of handles	each	195.00

7003	Pair of Anodised Aluminium lever handles for 100 mm mortice latch and lock	each	215.00
7018	Joint tape roll	roll	90.00
7019	Dash fastener/chemical fastener	each	12.50
7020	All drive screws (for gypsum board)	100 Nos	58.00
7021	Primer (for gypsum board)	litre	70.00
7023	Chromium plated brackets (curtain rods)	each	8.00
7029	Galvanised wire mesh of average width of aperture 1.4 mm and nominal dia of wire 0.63 mm	sqm	250.00
7032	Frosted glass sheet of nominal thickness 4 mm (weighing not less than 10 kg/sqm)	sqm	420.00
7033	Nickel plated M.S. pipe 25 mm dia	metre	76.00
7034	Nickel plated M.S. pipe 20 mm dia	metre	72.00
7035	Nickel plated M.S. Brackets for curtain rod 20 mm	each	7.00
7036	Nickel plated M.S. - Brackets for curtain rod 25 mm	each	8.00
7040	Oxidised mild steel screws 35 mm	100 Nos	48.00
7042	Mild steel conduit pipe (heavy type ) ISI marked-20 mm dia	metre	42.00
7043	Mild steel conduit pipe (heavy type ) ISI marked-25mm dia	metre	54.00
7048	Rawl plug 50 mm (designation 10 nos)	each	22.00
7049	Teak wood lipping of size 25x3 mm in pelmets	metre	12.00
7055	Flat pressed 3 layer and graded particle board (medium density) Grade 1 conforming to IS : 3087 - 18 mm thick	sqm	430.00
7056	Aluminium tee channel (heavy duty) with rollers and stop end	metre	100.00
7059	Aluminium hanging floor door stopper with twin rubber & stopper	each	40.00
7060	Hydraulic door closer tubular type Aluminium section body	each	560.00
7063	Oxidised M.S.casement stay (straight peg type) 300 mm not less than 0.33 kg	each	35.00
7064	Oxidised M.S.casement stay (straight peg type) 250 mm not less than 0.28 kg	each	30.00
7065	Oxidised M.S. casement stay (straight peg type) 200 mm not less than 0.24 kg	each	25.00
7137	Factory made 35 mm thick shutters with laminated veneer lumber styles & rails as per TADS 15:1995 and panels of 12 mm thick plain type-I, medium density flat pressed three layer, graded particle board (FPT-I) as per IS:3087 bonded with BWP type synthetic resin adhesive, as per IS:848	sqm	1,620.00

7139	Factory made 35 mm thick shutters with laminated veneer lumber styles & rails as per TADS 15:1995 and panels of 12 mm thick both sides prelaminated type-I, medium density flat pressed three layer, graded particle board (FPT-I) as per IS:3087 bonded with BWP type synthetic resin adhesive, as per IS:848	sqm	1,720.00
7143	Factory made 35 mm thick shutters with laminated veneer lumber styles & rails as per TADS 15:1995 and panels of 12 mm thick one side prelaminated type-I, and other side balancing lamination, medium density flat pressed three layer, graded particle board (FPT-I) as per IS:3087 bonded with BWP type synthetic resin adhesive, as per IS:848	sqm	1,910.00
7151	Factory made 30 mm thick shutters with laminated veneer lumber styles & rails as per TADS 15:1995 and panels of sheet glass using 10 kg/ sqm glass	sqm	1,620.00
7154	Factory made 35 mm thick shutters with laminated veneer lumber styles & rails as per TADS 15:1995 and panels of galvanised wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm	sqm	1,620.00
7155	Factory made 30 mm thick shutters with laminated veneer lumber styles & rails as per TADS 15:1995 and panels of galvanised wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm	sqm	1,430.00
7157	Laminated veneer lumber confirming to TADS 15:1995 manufactured in factory in frames of doors, windows	10 cudm	700.00
7184	Oxidised M.S. safety chain (weighing not less than 450 gms) for door	each	57.00
7269	25 mm thick particle board	sqm	435.00
7271	Ilnd class teak wood lipping 25 mm wide x 12 mm thick	metre	28.00
7272	25 mm thick melamine faced prelaminated three layer particle board	sqm	900.00
7307	For flush door shutters Extra for providing teak veneering on one side instead of commercial veneering	sqm	305.00
7312	Expandable fastener with plastic sleeve and M.S. screws : 25 mm long	each	10.00
7313	Expandable fastener with plastic sleeve and M.S. screws : 32 mm long	each	10.00
7314	Expandable fastener with plastic sleeve and M.S. screws : 40 mm long	each	13.00



7315	Expandable fastener with plastic sleeve and M.S. screws. 50 mm long	each	14.00
7349	12 mm M.S. 'U' beading	metre	14.00
7366	Glass reinforced Gypsum ( GRG) board 12.5 mm	sqm	240.00
7367	Galvanised M.S. sheet 0.5 mm thick pressed channel section of size 50x32 mm	metre	60.00
7369	Galvanised M.S. sheet 0.50 mm thick pressed stud : 48x34x36 mm	metre	70.00
7388	Dash hold fastener 12.5 mm dia, 50 mm long with 6 mm dia bolt	each	10.00
7390	EPDM Gasket for uPVC window/door	metre	15.00
7443	Aluminium single cleat of size 30x32x3 mm	each	14.00
7444	Aluminium grip strip of size 50x12x2 mm	each	11.00
7445	25 mm thick prelaminated flush door shutter both side decorative	sqm	800.00
7449	Aluminium U beading	kilogram	210.00
7451	Glass sheet (Pin headed) 4 mm thick	sqm	345.00
7468	Veneered particle board with commercial veneering on both sides 12 mm thick	sqm	480.00
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	500.00
7478	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) 18	sqm	560.00
7479	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) 25	sqm	850.00
7480	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	sqm	490.00
7485	Oxidised M. S. hinges finished with nickel plating 50 mm (Over all width)	metre	40.00
7486	Oxidised M. S. hinges finished with nickel plating 65 mm (Over all width)	metre	52.00
7512	PTMT handle 125x34x24 mm	each	20.00
7513	PTMT handle 150x34x24 mm	each	20.00
7514	PTMT butt hinges 75x60x10 mm	each	29.00
7515	PTMT butt hinges 100x75x10 mm	each	36.00
7516	PTMT Tower bolt 152x42x18 mm	each	35.00
7517	PTMT Tower bolt 202x42x18 mm	each	58.00
7518	PTMT door catcher 72x42 mm	each	22.00
7552	Coir veneered board 4 mm thick	sqm	260.00

7553	Coir veneered board 6 mm thick	sqm	350.00
7555	Coir veneered board 12 mm thick	sqm	625.00
7556	Coir veneered board 18 mm thick	sqm	930.00
8001	24 mm thick Factory made shutters with style, rails and panels of PVC extruded sections in white, grey or wooden finish	sqm	1,085.93
8002	30 mm thick Factory made shutters with style, rails and panels of PVC extruded sections in white, grey or wooden finish	sqm	1,248.82
8003	Factory made PVC rigid foam panelled shutter i/c carriage	sqm	1,547.45
8004	Factory made PVC rigid foam panelled shutter as per IS : 4020 i/c carriage	sqm	1,547.45
8006	Factory made PVC rigid foam sheet 1 mm thick	sqm	155.80
8010	48mmX40mmX1.5mm thick Factory made door frame of PVC extruded sections in white, grey or wooden finish	metre	130.00
8011	Factory made door frame PVC extruded sheet i/c carriage	metre	260.00
8014	Factory made door frame of size 50x47 mm with wall thickness 5 mm made of single piece extruded profile	metre	298.74
8016	High Density expanded poly ethylene (EPE) Foam 1mm thick	sqm	10.00
8017	Fire Rated door Frame made with 1.6 mm thick G.I. Sheet (120 minutes)	metre	1,200.00
8018	Fire Rated door shutter made with 1.6 mm thick G.I. Sheet (120 minutes), including hinges but without glass panels but including wastages	sqm	6,000.00
8100	Powder coated M.S. butt hinges 100 mm X58 mmX1.9 mm	10 Nos	130.00
8101	Stainless steel ball bearing hinges of size 100x89x3mm	each	450.00
8116	Zinc alloy (white powder coated) 3D Hinges for uPVC Door	each	455.00
8117	Zinc alloy (white powder coated) handles with zinc plated mild steel multi point locking having transmission gear, cylinder with keeps and one side key for uPVC casement door	each set	2,635.00
8118	Zinc alloy (white powder coated) handles along with zinc plated mild steel multi point locking having transmission gear with keeps for uPVC sliding window	each set	1,535.00
8119	Zinc alloy (white powder coated) handles with key along with zinc plated mild steel multi point locking having transmission gear with keeps for uPVC sliding door	each set	1,265.00

8121	uPVC extruded (small series) casement window frame size 47x50mm	metre	280.00
8122	uPVC extruded (small series) casement window sash/window mullion size 47x68 mm	metre	311.00
8125	uPVC extruded glazing bead of appropriate dimension for small series casement window Sash	metre	100.00
8126	uPVC extruded (big series) casement window frame size 67x60 mm	metre	351.00
8127	uPVC extruded (big series) casement door frame size 67x64 mm	metre	396.00
8128	uPVC extruded (big series) casement window sash/window mullion/door mullion size 67x80 mm	metre	469.00
8129	uPVC extruded (big series) casement door sash size 67x110 mm	metre	397.60
8130	uPVC extruded glazing bead of appropriate dimension for (big series) casement window/door	metre	135.00
8131	uPVC extruded glazing bead of appropriate dimension for (small series) sliding window sash	metre	66.00
8132	uPVC extruded glazing bead of appropriate dimension for (big series) of sliding window Sash/	metre	85.00
8133	uPVC extruded (small series) 2 track sliding window frame size 52x44 mm	metre	314.00
8134	uPVC extruded (big series) 2 track sliding window/door frame size 67x50mm	metre	424.00
8135	uPVC extruded (small series) 3 track sliding window frame size 92x44 mm	metre	418.00
8136	uPVC extruded (big series) 3 track sliding window/door frame size 116x45mm	metre	583.00
8137	uPVC extruded (small series) 2 track sliding window sash/3 track sliding window sash size 32x60mm	metre	291.00
8138	uPVC extruded (big series) 2 track sliding window sash size 46x62mm	metre	357.00
8139	uPVC extruded (big series) 3 track sliding window sash size 46x62mm	metre	358.00
8140	uPVC extruded interlock of appropriate dimension for small series sliding window sash	metre	88.00
8141	uPVC extruded interlock of appropriate dimension for big series sliding window /door sash	metre	98.00
8142	uPVC extruded inline adaptor of appropriate dimension for big series sliding window/door sash	metre	98.00
8143	uPVC extruded 2 track sliding door sash/ 3 track sliding door sash (big series) size 46x82mm	metre	385.00
8210	Stainless steel screws 50 mm	100 Nos	300.00

8211	Stainless steel screws 40 mm	100 Nos	250.00
8212	Stainless steel screws 30 mm	100 Nos	230.00
8214	Stainless steel screws 20 mm	100 Nos	150.00
8215	Stainless steel butt hinges 125x64x1.9 mm IS : 12817 marked	10 Nos	310.00
8216	Stainless steel butt hinges 100x58x1.9 mm IS : 12817 marked	10 Nos	280.00
8217	Stainless steel butt hinges 75x47x1.8 mm IS : 12817 marked	10 Nos	180.00
8218	Stainless steel butt hinges 50x37x1.5 mm IS : 12817 marked	10 Nos	150.00
8219	Stainless steel butt hinges (heavy weight) 125x64x2.5 mm IS :12817 marked	10 Nos	375.00
8220	Stainless steel butt hinges (heavy weight) 100x60x2.5 mm IS :12817 marked	10 Nos	275.00
8221	Stainless steel butt hinges (heavy weight) 75x50x2.5 mm IS :12817 marked	10 Nos	230.00
8222	M.S. heavy weight butt hinges 125x90x4.0 mm IS: 1341 marked.	10 Nos	230.00
8223	M.S. heavy weight butt hinges 100x75x3.5 mm IS:	10 Nos	180.00
8224	M.S. heavy weight butt hinges 75x60x3.1 mm IS: 1341 marked	10 Nos	110.00
8225	M.S. heavy weight butt hinges 50x40x2.5 mm IS : 1341 marked	10 Nos	90.00
8678	1 mm thick 35 mm wide bright finished stainless steel piano hinges	No.	47.03
8699	8 mm thick tapered edge calcium silicate board	sqm	270.00
8700	10 mm thick calcium silicate board	sqm	420.00
8703	Telescopic drawer channels 300 mm long	set	240.00
8704	Stainless steel roller for sliding arrangement in racks/ cupboards/cabinets shutter	each	11.00
8705	50 mmX42 mmX2 mm thick Factory made door frame of PVC extruded sections in white, grey or wooden finish	metre	166.00
8706	25 mm thick factory made PVC flush door shutter i/c carriage	sqm	1,700.00
8707	Factory made glass reinforced plastic door frame 90x45 mm i/c carriage	metre	480.00
8708	30 mm thick factory made glass fiber reinforced plastic panel door shutter i/c carriage	sqm	2,326.00
8709	30 mm thick factory made solid PVC profile panelled door single piece extruded profile decorative finish (wood grain printed on both side)	sqm	2,100.00
8710	Factory made solid PVC door frame 60 x 30 mm i/c carriage	metre	315.00
8711	20 mm factory made solid PVC panel door shutter i/c carriage	sqm	2,050.00

8712	30 mm thick factory made solid PVC profile panelled door single piece extruded profile non decorative finish	sqm	2,000.00
8713	Fiber glass reinforced plastic chajja	sqm	3,000.00
8714	Magnetic catcher triple strip vertical type	each	28.00
8715	Magnetic catcher double strip horizontal type	each	20.00
8716	100 mm mortice lock with 6 levers for aluminium door	each	432.00
8717	12.5 mm thick Glass fibre reinforced Gypsum board	sqm	21.00
8719	2nd class teak wood lipping/ moulded beadibg or Taj beading/ornamental beading of size 18X5mm	metre	30.00
8720	Ceiling sections 0.55 mm thick having a knurled web of 51.55 mm and two flanges of 26 mm each with lips of 10.55 mm	metre	38.00
8721	Perimeter channel having one flange of 20 mm and another flange of 30 mm with thickness of 0.55 mm and web of length 27 mm	metre	23.00
8722	Nylon sleeves & wooden screws (40 mm)	each	2.60
8723	Counter sunk ribbed head screw 25 mm	100 Nos	76.00
8724	12 mm thick marine plywood conforming to IS: 710	sqm	720.00
8725	12 mm thick fire retardant plywood conforming to IS: 5509	sqm	867.00
8726	1.5 mm thick decorative laminated sheet	sqm	380.00
8727	1.0 mm thick decorative laminated sheet	sqm	294.00
8730	30 mm thick factory made glass fiber reinforced plastic flush door shutter i/c carriage	sqm	2,675.00
8734	PVC single piece extruded door frame of profile size 50 mm x 47 mm with wall thickness of 5 mm	metre	265.00
8735	35 mm thick factory made solid panel PVC door shutter of single piece extruded profile non decorative finished (Matt finished)	sqm	2,295.00
8736	35 mm thick factory made solid panel PVC door shutter of single piece extruded profile decorative finished (wood grain finished)	sqm	2,707.00
8737	Stainless steel wire guage (Grade-304) aperture 1.4 mm and 0.50 mm dia wire	kg	413.00
8738	Factory made door frame fire rated (60 minutes) made with 16 SWG G.I. Sheet of section 143 mm x 57 mm duly filled with vermiculite based concrete mix	metre	1,062.00
8739	Fire rated door shuttere made with 16 SWG G.I. sheet (60 minutes) without panel	sqm	4,702.00
8740	Fire seal Putty	kg	304.00
8741	Clear fire resistant glass panes 6mm thick (60 minutes)	sqm	21,500.00

8742	G.I. U beading of 16 SWG G.I. sheet (zinc coating >120gm/ m <sup>2</sup> ) with ceramic tape of suitable thickness and fire resistant primer coating	metre	303.00
8743	Matrix Mineral Board	metre	70.00
8744	Panic Bar / latch (Double point)	each	5,200.00
8745	65 mm x 55 mm x 2 mm thick Factory made door frame of PVC extruded section in white, grey or wooden finish	metre	364.00
8746	37 mm thick Factory made shutter with style,rails	sqm	2,479.00
8747	75 mm x 53 mm x 2.0 mm thick Factory made door frame of PVC extruded section in white, grey or wooden finish	metre	413.00
8748	37 mm thick Factory made fusion welded shutter	sqm	2,703.00
8750	Zinc alloy (white powder coated) casement handle	each	130.00
8751	Zinc alloy (white powder coated) touch lock with	each	114.00
8752	Zinc alloy body with single nylon roller (weight	each	60.00
8753	Stainless Steel (SS - 304) with adjustable double nylon roller (weight bearing capacity to be 120 Kg) for uPVC sliding door/window	each	105.00
8754	Zinc alloy (white powder coated) crescent lock for uPVC sliding door/window	each	110.00
8755	Stainless steel friction hinge of size 200 mm x 19 x 1.9 mm for uPVC windows	each	212.00
8756	Stainless steel friction hinge of size 250 mm x 19 x 1.9 mm for uPVC windows	each	237.00
8757	Stainless steel friction hinges (SS-304 grade) size 300 x 19 x1.9 mm for uPVC window	each	260.00
8758	Stainless steel friction hinges (SS-304 grade) size 350 x 19 x1.9 mm for uPVC window	each	361.00
8759	Stainless steel friction hinges (SS-304 grade) size 400 x 19 x1.9 mm for uPVC window	each	365.00
8772	Aluminium Track on bottom rail for uPVC window	metre	37.00
8773	Wool pile/ weather pile strip for uPVC sliding	metre	20.00
8774	Aluminium Grill	kilogram	279.00
8775	Steel Galvanised tubular reinforcement for uPVC	metre	62.00
8776	Stainless steel dash fastener of 8 mm dia and 75 mm long bolt	each	17.00
8777	GI Fastener 100x8 mm	each	15.00
9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

<b>9.0 WOOD AND P. V. C. WORK</b>			
<b>Code No</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
<b>FRAMES AND TRUSSES</b>			
9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately).		
9.1.1	Second class teak wood	cum	92,103.87
9.1.2	Sal wood	cum	7,469.60
9.1.3	Kiln seasoned and chemically treated hollock wood	cum	51,939.79
9.2	Providing laminated veneer lumber conforming to IS:14616 and TAD -15:2001 (Part B) in factory made frames of doors, windows, clerestory windows and other frames, wrought framed and fixing in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).	cum	80,536.54
9.3	Providing wood work in frames of false ceiling, partitions etc. sawn and fixed in position :		
9.3.1	Sal wood	cum	67,954.85
9.3.2	Kiln seasoned and chemically treated hollock wood	cum	45,032.54
9.4	Extra for additional labour for circular works, such as in frames of fan light		
9.4.1	Second class teak wood	cum	9,210.46
9.4.2	Sal wood	cum	7,470.54
9.4.3	Kiln seasoned and chemically treated hollock wood	cum	5,194.21
9.5	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary		
9.5.1	Second class teak wood		
9.5.1.1	35 mm thick shutters	sqm	2,593.12
9.5.1.2	30 mm thick shutters	sqm	2,352.49
9.5.2	Kiln seasoned and chemically treated hollock wood		
9.5.2.1	35 mm thick shutters	sqm	1,758.37
9.5.2.2	30 mm thick shutters	sqm	1,633.45
9.5.3	Kiln seasoned selected planks of sheesham wood		
9.5.3.1	35 mm thick shutters	sqm	2,281.34
9.5.3.2	30 mm thick shutters	sqm	2,083.48
9.6	Providing and fixing 35 mm thick factory made laminated veneer lumber door shutter conforming to IS : 14616 and TADS 15:2001 (Part B), including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, all complete as per directions of Engineer-in-charge and panelling with panels of :		

9.6.1	12 mm thick plain grade -1, medium density flat pressed three layer particle board FPT - I or graded wood particle board FPT- I, IS : 3087 marked, bonded with BWP type synthetic resin adhesive as per IS : 848 :	sqm	1,877.44
9.6.2	12 mm thick pre-laminated particle board (decorative lamination on both sides) grade -1, medium density flat pressed, three layer particle board FPT- I or graded wood particle board FPT- I, conforming to IS : 3087, bonded with BWP type synthetic resin adhesive as per IS : 848 and pre-laminated conforming to IS : 12823, Grade 1, Type - II marked :	sqm	1,971.10
9.6.3	12 mm thick one side Pre-laminated particle board (decorative lamination on one side and other sides balancing lamination)grade -1, medium density flat pressed, three layer particle board FPT - I or graded wood particle board FPT-1 conforming to IS : 3087 bonded with BWP type synthetic resin adhesive as per IS : 848 and pre-laminated conforming to IS : 12823,Grade -1, Type II marked :	sqm	2,149.04
9.7	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick :		
9.7.1	Second class teak wood	sqm	2,098.81
9.7.2	Kiln seasoned and chemically treated hollock wood	sqm	1,427.86
9.7.3	Ply wood 5 ply, 9 mm thick		
9.7.3.1	Decorative plywood both side decorative veneer (Type - I) conforming to IS 1328 BWR type	sqm	1,656.45
9.7.3.2	Decorative plywood one side decorative veneer and commercial veneer on other face (Type 1) conforming to IS 1328 BWR Type	sqm	1,680.28
9.7.4	Ply wood 7 ply, 9 mm thick		
9.7.4.1	Decorative plywood one side decorative veneer and commercial veneer on other face (Type 1) conforming to IS 1328 BWR Type	sqm	1,799.49
9.7.5	Particle Board 12 mm thick		
9.7.5.1	Plain particle board flat pressed, 3 layer or graded wood particle board medium density Grade I, IS :3087 marked	sqm	979.86
9.7.5.2	Veneered flat pressed three layer or graded wood particle board with commercial veneering on both sides conforming to IS:3097, grade I	sqm	1,197.81



9.7.5.3	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side, Grade I, Type II IS: 12823 marked	sqm	1,220.52
9.7.5.4	Pre-laminated particle board with decorative lamination on both sides, Grade I, Type II, IS:12823 marked	sqm	1,209.18
9.7.6	Coir Veneer Board (conforming to IS 14842)		
9.7.6.1	12 mm thick	sqm	1,362.41
9.7.7	Float glass panes		
9.7.7.1	4 mm thick glass pane	sqm	1,327.97
9.7.7.2	5.5 mm thick glass panes	sqm	1,561.84
9.7.8	Fly proof stainless steel grade 304 wire gauge with 0.5 mm dia. wire and 1.4 mm wide aperture with matching wood beading	sqm	1,065.12
9.8	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes, including ISI marked M.S.pressed butt hinges bright finished of required size with necessary screws.		
9.8.1	Second class teak wood		
9.8.1.1	35 mm thick	sqm	3,120.88
9.8.1.2	30 mm thick	sqm	2,845.85
9.8.2	Kiln seasoned and chemically treated hollock wood		
9.8.2.1	35 mm thick	sqm	2,170.39
9.8.2.2	30 mm thick	sqm	2,027.62
9.8.3	Kiln seasoned selected planks of sheesham wood		
9.8.3.1	35 mm thick	sqm	2,766.30
9.8.3.2	30 mm thick	sqm	2,540.16
9.9	Providing and fixing 25 mm thick shutters for cup board etc. :		
9.9.1	Panelled or panelled & glazed shutters :		
9.9.1.1	Second class teak wood including ISI marked anodised aluminium butt hinges with necessary	sqm	2,743.20
9.9.1.2	Second class teak wood including ISI marked nickel plated bright finished M.S. piano hinges with necessary screws	sqm	2,842.84
9.9.2	Glazed shutters :		
9.9.2.1	Second class teak wood including ISI marked anodized aluminium butt hinges with necessary	sqm	2,625.77
9.9.2.2	Second class teak wood including ISI marked nickel plated bright finished M.S. piano hinges with necessary screws	sqm	2,653.84

9.10	Providing and fixing ISI marked flush door shutters conforming to IS :2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.		
9.10.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	2,160.27
9.10.2	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	1,972.95
9.10.3	25 mm thick (for cupboard) including ISI marked nickel plated bright finished M.S. Piano hinges IS : 3818 marked with necessary screws	sqm	1,758.65
BRIGHT FINISHED MS FITTINGS			
9.11	Providing and fixing ISI marked M.S. pressed butt hinges bright finished with necessary screws etc. complete :		
9.11.1	125x64x1.90 mm	each	33.60
9.11.2	100X58X1.90 mm	each	27.34
9.11.3	75x47x1.80 mm	each	22.93
9.11.4	50x37x1.50 mm	each	11.45
9.12	Providing and fixing ISI marked, IS : 1341, M.S. heavy weight butt hinges with necessary screws etc. complete :		
9.12.1	125x64x2.50 mm	each	42.49
9.12.2	100x60x2.50 mm	each	36.68
9.12.3	75x50x2.50 mm	each	28.00
9.12.4	50x37x1.50 mm	each	15.26
STAINLESS STEEL FITTINGS			
9.13	Providing and fixing IS : 12817 marked stainless steel butt hinges with stainless steel screws etc. complete :		
9.13.1	125x64x1.90 mm	each	66.85
9.13.2	100X58X1.90 mm	each	60.31
9.13.3	75x47x1.80 mm	each	44.94
9.13.4	50x37x1.50 mm	each	25.20
9.14	Providing and fixing IS : 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete :		
9.14.1	125x64x2.50 mm	each	72.94
9.14.2	100x60x2.50 mm	each	59.82
9.14.3	75x50x2.50 mm	each	49.63
BRASS FITTINGS			
9.15	Providing and fixing bright finished brass butt hinges with necessary screws etc. complete :		
9.15.1	125x85x5.5 mm (heavy type)	each	160.23

9.15.2	125x70x4 mm (ordinary type)	each	110.22
9.15.3	100x85x5.5 mm (heavy type)	each	122.99
9.15.4	100x70x4 mm (ordinary type)	each	88.13
9.15.5	75x65x4 mm (heavy type)	each	103.22
9.15.6	75x40x2.5 mm (ordinary type)	each	60.31
9.15.7	50x40x2.5 mm (ordinary type)	each	24.33
9.16	Providing and fixing bright finished brass parliamentary hinges with necessary screws etc.		
9.16.1	150x125x27x5 mm	each	276.47
9.16.2	125x125x27x5 mm	each	247.42
9.16.3	100x125x27x5 mm	each	227.75
9.16.4	75x100x20x3.2 mm	each	202.27
9.17	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :		
9.17.1	250x10 mm	each	262.05
9.17.2	200x10 mm	each	210.39
9.17.3	150x10 mm	each	162.61
9.17.4	100x10 mm	each	112.21
9.18	Providing and fixing bright finished brass door latch with necessary screws etc. complete :		
9.18.1	300x16x5 mm	each	191.24
9.18.2	250x16x5 mm	each	181.86
9.19	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	each	506.66
9.20	Providing and fixing bright finished brass 100 mm mortice latch with one dead bolt and a pair of lever handles of approved quality with necessary screws etc. complete.	each	422.38
9.21	Providing and fixing bright finished brass night latch of approved quality including necessary screws etc. complete.	each	703.36
9.22	Providing and fixing special quality bright finished brass cupboard or ward robe locks with four levers of approved quality including necessary screws etc. complete.		
9.22.1	40 mm	each	185.43
9.22.2	50 mm	each	214.48
9.22.3	65 mm	each	219.14
9.22.4	75 mm	each	233.21
9.23	Providing and fixing 50 mm bright finished brass cup board or wardrobe knob of approved quality with necessary screws.	each	44.56
9.24	Providing and fixing bright finished brass handles with screws etc.complete:		
9.24.1	125 mm	each	143.57
9.24.2	100 mm	each	132.90

9.24.3	75 mm	each	104.79
9.25	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc.	each	76.72
9.26	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc.	each	717.96
9.27	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws	each	599.41
9.28	Providing and fixing bright finished brass casement window fastener with necessary screws etc.	each	53.41
9.29	Providing and fixing bright finished brass casement stays (straight peg type) with necessary screws etc. complete :		
9.29.1	300 mm weighing not less than 330 gms	each	130.76
9.29.2	250 mm weighing not less than 280 gms	each	104.93
9.29.3	200 mm weighing not less than 240 gms	each	100.24
9.30	Providing and fixing bright finished brass hasp and staple (safety type) with necessary screws etc. complete :		
9.30.1	150 mm	each	83.02
9.30.2	115 mm	each	75.22
9.30.3	90 mm	each	66.33
CHROMIUM PLATED BRASS FITTINGS			
9.31	Providing and fixing chromium plated brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	each	572.25
9.32	Providing and fixing chromium plated brass night latch of approved quality including necessary screws etc. complete.	each	600.32
9.33	Providing and fixing special quality chromium plated brass cupboard locks with six levers of approved quality including necessary screws etc. complete.		
9.33.1	Size 40 mm	each	191.07
9.33.2	Size 50 mm	each	200.41
9.33.3	Size 65 mm	each	224.77
9.33.4	Size 75 mm	each	249.14
9.34	Providing and fixing chromium plated brass 50 mm cupboard or wardrobe knobs with nuts complete.	each	85.75

9.35	Providing and fixing chromium plated brass handles with necessary screws etc. complete:		
9.35.1	125 mm	each	158.55
9.35.2	100 mm	each	139.44
9.35.3	75 mm	each	125.41
9.36	Providing and fixing chromium plated brass casement window fastener with necessary screws etc. complete.	each	98.56
9.37	Providing and fixing chromium plated brass		
9.37.1	300 mm weighing not less than 330 gms	each	145.39
9.37.2	250 mm weighing not less than 280 gms	each	126.67
9.37.3	200 mm weighing not less than 240 gms	each	107.91
ANODISED ALUMINIUM FITTINGS (ALL FITTINGS SHALL BE ISI MARKED)			
9.38	Providing and fixing ISI marked aluminium butt hinges anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with necessary screws etc. complete:		
9.38.1	125x75x4 mm	each	96.99
9.38.2	125x63x4 mm	each	81.34
9.38.3	100x75x4 mm	each	74.80
9.38.4	100x63x4 mm	each	68.32
9.38.5	100x63x3.2 mm	each	63.28
9.38.6	75x63x4 mm	each	55.34
9.38.7	75x63x3.2 mm	each	50.72
9.38.8	75x45x3.2 mm	each	47.92
Note :- Aluminum hinges shall not be used in wooden shutters, stainless steel hinges shall be			
9.39	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868),transparent or dyed to required colour or shade, with nuts and screws etc. complete :		
9.39.1	300x16 mm	each	182.21
9.39.2	250x16 mm	each	164.43
9.40	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868 ) transparent or dyed to required colour or shade, with necessary screws etc. complete :		
9.40.1	300x10 mm	each	82.36
9.40.2	250x10 mm	each	73.08
9.40.3	200x10 mm	each	63.56
9.40.4	150x10 mm	each	52.89
9.40.5	100x10 mm	each	41.06

9.41	Providing and fixing aluminium pull bolt lock, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws bolts, nut and washers etc. complete.	each	62.93
9.42	Providing and fixing 50 cm long aluminium kicking plate of size 100x3.15 mm, anodised (anodic coating not less than grade AC 10 as per IS :1868) transparent or dyed to required colour or shade, with necessary screws etc. complete.	each	149.00
9.43	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc.		
9.43.1	125 mm	each	42.04
9.43.2	100 mm	each	37.28
9.43.3	75 mm	each	32.41
9.44	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.		
9.44.1	Single rubber stopper	each	24.85
9.44.2	Twin rubber stopper	each	43.58
9.45	Providing and fixing aluminium casement stays, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.	each	45.19
9.46	Providing and fixing bright finished brass 100 mm mortice latch and lock, ISI marked, with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles of approved quality with necessary screws etc. complete.	each	517.86
9.47	Providing and fixing aluminium tee channels (heavy duty) with rollers & stop end in pelmets as curtain rod.	metre	97.79
GYPSUM BOARD PARTITIONS			

9.48	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts,including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer		
	on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete.		
9.48.1	75 mm overall thickness partition with 12.5 mm thick double skin fire rated board conforming to IS: 2095: part I	sqm	1,258.36
9.48.2	75mm overall thickness partition with 12.5 mm thick double skin tapered edged plain Gypsum board conforming to IS:2095: part I	sqm	1,071.04

9.48.3	66mm overall thickness Partition with 8mm thick double skin Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process with Compressive Strength 225 kg/sq.cm, Bending Strength 100 kg./ sq.cm	sqm	1,314.53
9.48.4	66mm overall thickness partition using 8mm thick double skin multipurpose cement board reinforced with cellulose fibre manufactured through autoclaving process (High pressure steam cured) as per IS : 14862 with suitable fibre cement screws	sqm	1,220.87
9.48.5	66 mm overall thickness partition using 8 mm thick double skin multipurpose cement bonded wood particle board manufactured as per IS: 14276 with suitable cement bonded board screws.	sqm	1,211.53
9.49	Providing and fixing powder coated telescopic drawer channels 300 mm long with necessary screws etc. complete as per directions of Engineer-in-	one set	248.54
9.50	Providing and fixing sliding arrangement in racks/ cupboards/cabinets shutter by with stainless steel rollers to run inside C or E aluminium channel section (The payment of C or E channel shall be made separately)	each	12.36
9.51	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance $\pm 1$ mm), with wall thickness 2.0 mm ( $\pm 0.2$ mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm ( $\pm 0.1$ mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineer-in-charge		
9.51.1	Extruded section profile size 48x40 mm	metre	162.79
9.51.2	Extruded section profile size 42x50 mm	metre	196.49
9.52	Providing and fixing to existing door frames.		



9.52.1	24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm ( $\pm 0.2$ mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm ( $\pm 0.2$ mm) wall thickness, fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge. (For W.C. and bathroom door	sqm	1,253.46
9.52.2	30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2 mm ( $\pm 0.2$ mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm ( $\pm 0.2$ mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness . The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	sqm	1,405.99

9.52.3	25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm ( $\pm 0.3$ mm).PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm ( $\pm 0.1$ mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places	sqm	1,828.54
9.53	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm, made out of extruded 5mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size,complete as per manufacturer's specification and direction of	metre	285.78

9.54	Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5 mm thick, 95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mm x 2 ) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail, paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7 mm (5 mm+2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc.		
9.54.1	30 mm thick plain PVC door shutters	sqm	1,718.57
9.54.2	30 mm thick pre laminated PVC door shutters	sqm	1,718.57
9.55	Providing and fixing factory made door frame (single rebate) made out of single piece extruded solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 62 mm width & 32 mm thickness, frame will be mitred & Jointed with self driven self tapping screws of size 38 mm x 4 mm & PVC solvent cement, including fixing the frame to wall with suitable dia & length anchor fastener as per manufacturer's specification and direction of Engineer-in-charge.	metre	491.82

9.56	Providing and fixing factory made 30 mm thick door shutter made of solid PVC foam profile. The styles & rails shall be of size 75 mm x 30 mm having wall thickness 5 mm. The styles, top & bottom rails shall have one side wall thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power. The styles and rails shall be reinforced with M.S. tubes of size 33 mm x 17 mm x 1 mm, painted with primer, all four corners of reinforcement to be welded or sealed. Solid PVC extruded bidding (push fit type) will be set inside the styles and the rails with a cavity, to receive single piece extruded 5 mm PVC sheet as panel. The styles and rails will be mitred cut and joint with the help of PVC solvent cement & self driven self tapping screws. Single piece extruded solid PVC lock rail of size 100 mm x 30 mm with wall thickness 5 mm & 15 mm integrally extruded in the middle of the lock rail & fixed with styles with the help of PVC solvent cement & self driven self tapping screws of size 100 mm x 8 mm complete as per manufacturer's specifications and direction of Engineer-in-charge.		
9.56.1	Non decorative finish	sqm	2,142.42
9.56.2	Decorative finish (both side wood grained finish)	sqm	2,236.08
9.57	Providing and fixing PVC rigid foam sheet 1 mm thick on existing door shutters (bathroom and W.C. doors) using synthetic rubber based adhesive.	sqm	905.14
9.58	Providing and fixing 12 mm thick panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick.		
9.58.1	Marine plywood conforming to IS: 710	sqm	1,470.28
9.58.2	Fire retardant plywood conforming to IS: 5509	sqm	1,637.13
9.59	Providing & Fixing decorative high pressure laminated sheet of plain /wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality.		
9.59.1	1.5 mm thick	sqm	623.39
9.59.2	1.0 mm thick	sqm	534.80

9.60	Providing and fixing factory made Fiberglass Reinforced plastics (F.R.P.) chajja 4 mm thick of required colour, size and design made by Resin Transfer Moulding (RTM) Machine Technology, resulting in void free compact laminate in single piece, having smooth gradual slope curvature for easy drainage of water and duly reinforced by 2 nos vertically and 1 nos horizontally 50x2 mm thick M.S. flat with 12 mm in built hole for grouting on the existing wall along with the 50 mm flanges duly inserted and sealed in the wall complete in one single piece casted monolithically, including all necessary fittings . The FRP Chajja should be manufactured using unsaturated Polyester resin as per IS: 6746, duly reinforced with fibre glass chopped strand mat (CSM) as per IS: 11551 complete with protective Gel coat U/V coating on Top for complete resistance from the extreme of temperature,	sqm	3,431.05
9.61	Providing and fixing cup board shutters 25 mm thick, with Pre-laminated flat pressed three layer particle board or graded wood particle board IS:12823 marked, exterior grade (Grade I Type II), having one side decorative lamination and other side balancing lamination, including IInd class teak wood lipping of 25 mm wide x12 mm thick with necessary screws and bright finished stainless steel piano hinges, complete as per direction of the Engineer-in-Charge	sqm	1,387.89
9.62	Providing and fixing cup board shutters with 25 mm thick veneered particle board IS : 3097 marked, exterior grade (Grade I), of approved make, including IInd class teak wood lipping of 25 mm wide x 12 mm thick with necessary screws and bright finished stainless steel piano hinges, complete as per direction of Engineer-in-Charge.		
9.62.1	With decorative veneering on one side and commercial veneering on other side	sqm	1,167.81
9.62.2	With non decorative veneering on both sides	sqm	1,097.57

9.63	Providing and fixing factory made shutters of Pre-laminated particle board flat pressed three layer or graded wood particle board with one side decorative finish and other side balancing lamination conforming to IS:12823 Grade I Type II, of approved design, and edges sealed with water resistant paint and lipped with aluminium 'U' type edge beading all-round the shutter, including fixing with angle cleat, grip strip, cadmium plated steel screws, including fixing of aluminium hinges 100x63x4 mm etc. complete as per architectural drawing and direction of Engineer-in-Charge (Cost of 'U' beading and hinges will be paid for separately).		
9.63.1	25 mm thick	sqm	1,091.34
9.64	Providing and fixing aluminum U beading of required size to Pre-laminated/flush door shutter, including fixing etc. complete as per direction of Engineer-in-	kg	371.21
9.65	Providing and fixing, in position concealed G.I. section for wall paneling using board of required thickness fixed on the 'W' profile (0.55 mm thick) having a knurled web of 51.55 mm and two flanges of 26 mm each with lips of 10.55 mm, placed @ 610 mm C/C in perimeter channel having one flange of 20 mm and another flange of 30 mm with thickness of 0.55 mm and web of length 27 mm. Perimeter channel is fixed on the floor and the ceiling with the nylon sleeves @ 610 mm C/C with fully threaded self-tapping dry wall screws. Board is fixed to the 'W' profile with 25 mm countersunk ribbed head screws @ 200 mm C/C., all complete as per the drawing & directions of engineer-in-charge, the joints of the boards are finished with specially formulated jointing compound and 48 mm wide jointing tape to provide seamless finish.		
9.65.1	Tapered edge calcium silicate board made with calcareous & siliceous materials reinforced with cellulose fiber manufactured through autoclaving process to give stable crystalline structure with compressive strength 225 kg/ sq.cm, Bending strength 100 kg/sq.cm.		
9.65.1.1	10mm thick	sqm	1,052.45
9.65.2	Multipurpose cement bonded particle board with suitable cement bonded board screws		
9.65.2.1	8 mm thick Cement fiber board as per IS: 14862	sqm	846.37
9.65.2.2	8 mm thick Cement bonded wood particle board as per IS:14276	sqm	841.19

9.65.3	Gypsum board conforming to IS: 2095 Part -1.		
9.65.3.1	12.5 mm thick	sqm	763.91
9.66	Providing and Fixing factory made uPVC door frame, made of uPVC extruded sections , of size 65 mm x 55 mm with wall thickness 2.0 mm ( $\pm 0.2$ mm), corners of the door frame to be mitred cut and jointed with plastic brackets and stainless steel screws, reinforcing hinge side vertical of the frames with PVC profile of Size 28 mm x 30 mm having wall thickness 2 mm ( $\pm 0.2$ mm), including providing & fixing 3 nos of 125 mm long stainless steel hinges to the frame, fixing the frame with jamb with required number & size of anchor dash fastners, all complete as per manufacturer's specification and direction of Engineer-in-charge.	metre	381.92
9.67	Providing and fixing 37 mm thick factory made PVC door shutter, styles and rails made of PVC hollow section of size 100 mm x 37 mm with wall thickness 2 mm ( $\pm 0.2$ mm), with inbuilt bead on one side, styles and rails mitred cut and joint at the corners by means of 2 nos of plastic brackets of size 75 mm x 220 mm at each corner and stainless steel screws, reinforcing the hinge side of style by inserting PVC profile of size 28 mm x 30 mm, with wall thickness 2 mm ( $\pm 0.2$ mm). Lockrail of size 100 mm x 37 mm, wall thickness 2 mm ( $\pm 0.2$ mm) will be fixed to the vertical styles. Providing with PVC snapfit beads and panel of size 100 mm x 20 mm, and inserting 2 nos tie bar of 6 mm dia and fastening with nuts and washers complete, all as per manufacturer's specification and direction of Engineer-in-charge.	sqm	2,558.12
9.68	Providing and Fixing factory made PVC door frame made of PVC extruded sections of size 75 mm x 53 mm, having wall thickness 2.0 mm ( $\pm 0.2$ mm). Both verticals sides of the frame reinforced with PVC profile of cross section size 28 mm x 30 mm x 2 mm thickness ( $\pm 0.2$ mm) and 75 mm x 200 mm long, including reinforcing both ends of the top frame with PVC profile. PVC Door Frame and PVC reinforcement profile to be mitred cut, jointed and fusion welded together, including providing and fixing 3 nos of 125 mm long stainless steel hinges to frame, fixing the frame with jamb with required nos & sizes of anchor dash fastener, all complete as per manufacturer's specification and direction of engineer-in-charge.	metre	427.84

9.69	Providing and fixing 37 mm thick factory made PVC Door shutter, styles and rails made of PVC hollow extruded printed and laminated section having overall dimension 115 mm x 37 mm with wall thickness 2 mm ( $\pm 0.2$ mm) with inbuilt beading on one side, the styles and rails mitred cut and joint at corners by inserting 2 nos PVC profile reinforcement of size 75 mm x 200 mm long with cross section size of 28 mm x 30 mm having wall thickness 2 mm ( $\pm 0.2$ mm). Styles, rails and reinforcements to be fusion welded together. Only hinge side vertical style to be reinforced with PVC profile reinforcement in full length. Printed and laminated PVC lock rail of size 110 mm x 37 mm having wall thickness 2 mm ( $\pm 0.2$ mm) to be welded horizontally with the vertical styles after inserting PVC profile reinforcement as in styles and rails, providing with PVC snap fit beading, panels of 100 x 20 mm printed & laminated and inserting 2 nos 6 mm dia bright steel rod horizontally with both side threaded and tightened with check nuts and washers complete, all as per manufacturer's specification and direction of	sqm	2,767.91
9.70A	Providing and fixing factory made uPVC white colour casement/casement cum fixed glazed windows comprising of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with $1.60 \pm 0.2$ mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, stainless steel (SS 304 grade) friction hinges, zinc alloy (white powder coated) casement handles, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately)		
Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.			



9.70A.1	Casement window single panel with S.S. friction hinges (300 x 19 x 1.9 mm), made of (small series) frame 47 x 50 mm & sash 47 x 68 mm both having wall thickness of $1.9 \pm 0.2$ mm and single glass pane glazing bead of appropriate dimension. (Area of window upto 0.75 sqm.)	sqm	7,310.63
9.70A.2	Casement window double panels with S.S. friction hinges (300 x 19 x 1.9 mm) made of (small series) frame 47 x 50 mm, sash 47 x 68 mm & mullion 47 x 68 mm all having wall thickness of $1.9 \pm 0.2$ mm and single glazing bead of appropriate dimension. (Area of window above 0.75 sqm upto 1.50 sqm).	sqm	6,744.78
9.70A.3	Casement window double panels with top fixed with S.S. friction hinges (350 x 19 x 1.9 mm) made of (small series) frame 47 x 50 mm, sash 47 x 68 mm & mullion 47 x 68 mm all having wall thickness of $1.9 \pm 0.2$ mm and single glazing bead of appropriate dimension. (Area of window upto 2.50 sqm).	sqm	5,443.69
9.70A.4	Casement window single panel with S.S. friction hinges (400 x 19 x 1.9 mm) made of (big series) frame 67 x 60 mm & sash 67 x 80 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead /double glazing bead of appropriate dimension. (Area of window above 0.75 sqm.)	sqm	7,242.94
9.70A.5	Casement window double panels with S.S. friction hinges (350 x 19 x 1.9 mm) made of (big series) frame 67 x 60 mm & sash / mullion 67 x 80 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead/double glazing bead of appropriate dimension. (Area of window above 1.50 sqm).	sqm	7,522.83
9.70A.6	Casement cum fixed panel window having both end single casement panel, middle fixed panels and at top completely fixed ventilator with S.S friction hinges (350 x 19 x 1.9) made of (big series) frame 67 x 60 mm, sash 67 x 80 mm, & mullion 67 x 80 mm all having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead/double glazing bead of appropriate dimension. (Area of window above 3.00 sqm upto 5.00 sqm).	sqm	5,695.03

9.70B	Providing and fixing factory made uPVC white colour fixed glazed windows/ventilators comprising of uPVC multi-chambered frame and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), , uPVC extruded glazing beads of appropriate dimension, EPDM gasket, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately).		
Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.			
9.70B.1	Fixed window / ventilator made of (small series) frame 47 x 50 mm & mullion 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area upto 0.75 sqm.)	sqm	5,074.93

9.70C	Providing and fixing factory made uPVC white colour casement/Casement cum fixed glazed door comprising of uPVC multi-chambered frame, sash and mullion (where ever required)extruded profiles duly reinforced with $1.60 \pm 0.2$ mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket,zinc alloy (white powder coated) 3D hinges and one handle on each side of panels along with zinc plated mild steel multi point locking having transmission gear, cylinder with keeps and one side key, G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws, etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealent over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon		
Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.			
9.70C.1	Casement door with 3D hinges made of (big series) frame 67 x 64 mm & sash 67 x 110 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead/double glazing bead of appropriate dimension. (Area of door upto 2.00 sqm).	sqm	7,199.29
9.70C.2	Casement door with top hung ventilator with 3D and S.S. friction hinges (400 x 19 x 1.9 mm) made of (big series) frame 67 x 64 mm, sash 67 x 110 mm & mullion 67 x 80 mm all having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension.(Area of door upto 2.50 sqm)	sqm	7,316.37

9.70D	Providing and fixing factory made uPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with $1.60 \pm 0.2$ mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid		
Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.			
9.70D.1	Two track two panels sliding window made of (small series) frame 52 x 44 mm & sash 32 x 60 mm both having wall thickness of $1.9 \pm 0.2$ mm and single glazing bead of appropriate dimension. (Area of window upto 1.75 sqm)	sqm	5,343.87
9.70D.2	Three track three panels sliding window with fly proof SS wire mesh (Two nos. glazed & one no. wire mesh panels) made of (small series) frame 92 x 44 mm & sash 32 x 60 mm both having wall thickness of $1.9 \pm 0.2$ mm and single glazing bead of appropriate dimension (Area of window upto 1.75 sqm).	sqm	7,021.21
9.70D.3	Two track two panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm upto 2.50 sqm).	sqm	5,474.81

9.70D.4	Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm).	sqm	6,749.82
9.70D.5	Three track three panels sliding window made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm)	sqm	6,428.31
9.70E	Providing and fixing factory made uPVC white colour sliding glazed window above 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with $1.60 \pm 0.2$ mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads, uPVC extruded interlocks and uPVC extruded Inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle on one side of extreme panel along with zinc plated mild steel multi point locking having transmission gear with keeps, zinc alloy (white powder coated) touch lock with hook (if required for wire mesh panel), stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all		
Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.			
9.70E.1	Two track two panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 2.50 sqm upto 4.00 sqm.)	sqm	5,458.81

9.70E.2	Two track four panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 4.00 sqm upto 8.00 sqm).	sqm	4,748.59
9.70F	Providing and fixing factory made uPVC white colour sliding glazed door comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with $1.60 \pm 0.2$ mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension uPVC extruded glazing beads, uPVC extruded interlock and uPVC extruded Inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle with key on one side of extreme panels along with zinc plated mild steel multi point locking having transmission gear with keeps, zinc alloy (white powder coated) crescent lock (if required), stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer		
Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.			
9.70F.1	Two track two panels sliding door made of (big series) frame 67 x 50 mm & sash 46 x 82 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead /double glazing bead of appropriate dimension. (Area of door above 2.00 sqm upto 5.00 sqm)	sqm	4,817.68
9.70F.2	Two track four panels sliding door made of (big series) frame 67 x 50 mm & sash 46 x 82 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead /double glazing bead of appropriate dimension. (Area of door above 8.00 sqm upto 10.00 sqm).	sqm	4,298.63

9.70F.3	Three track three panels sliding door made of (big series) frame 116 x 45 mm & sash 46 x 82 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door above 5.00 sqm)	sqm	4,858.32
9.70F.4	Three track three panels sliding door with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 82 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door above 2.00 sqm upto 5.00 sqm)	sqm	6,136.80
9.71	Providing and fixing stainless steel (SS-304 grade) friction hinges to the side/ top hung uPVC windows, of approved quality, with necessary stainless steel screws etc. as per direction of Engineer-in-charge.		
9.71.1	200 x 19 x 1.9 mm	each	218.26
9.71.2	250 x 19 x 1.9 mm	each	241.68
9.71.3	300 x 19 x 1.9 mm	each	263.20
9.71.4	350 x 19 x 1.9 mm	each	357.81
9.71.5	400 x 19 x 1.9 mm	each	361.55
9.72	Providing and fixing casement handle made of zinc alloyed (white powder coated) for uPVC casement window with necessary screws etc.complete.	each	131.99
9.73	Providing and fixing zinc alloyed (white powder coated) touch lock for uPVC sliding window with necessary screws etc. complete.	each	117.01
9.74	Providing and fixing steel roller for uPVC sliding window with necessary screws etc. complete.	each	66.43
9.75	Providing and fixing steel roller for uPVC sliding door with necessary screws etc. complete.	each	108.57
9.76	Providing and fixing steel (white power coated) crescent lock for uPVC sliding window/ door with necessary screws etc. complete.	each	113.26

9.77	Providing and fixing frame work for partitions/ wall lining etc. made of 50x50x1.6 mm hollow MS tube, placed along the walls, ceiling and floor in a grid pattern with spacing @ 60 cm centre to centre both ways (vertically & horizontally) or at required spacing near opening, with necessary welding at junctions and fixing the frame to wall/ ceiling/floors with steel dash fasteners of 8 mm dia, 75 mm long bolt, including making provision for opening for doors, windows, electrical conduits,switch boards etc., including providing with two coats of approved steel primer etc. complete, all as per direction of Engineer-in-charge.	Kg	93.35
9.78	Providing and fixing panelling or paneling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows ( area of opening for panel inserts excluding portion inside grooves or rebated to be measured). Panelling for panelled and glazed shutters 25mm to 40mm thick: Pre-laminated with decorative lamination on both side exterior Grade - I MDF Board 12 mm thick conforming to IS:14587	sqm	1,185.31
9.79	Providing and fixing Pre -laminated medium density fibre board exterior grade (Grade-I) IS:14587:1998 marked, to frame, backing or studding with screws etc. complete ( Frames, backing or studding to be paid separately).		
9.79.1	Pre-laminated with decorative lamination on both side exterior Grade - I MDF Board 12 mm thick conforming to IS:14587	sqm	644.95
9.79.2	Pre-laminated with decorative lamination on both side exterior Grade - I MDF Board 18 mm thick conforming to IS:14587	sqm	784.39
9.80	Providing and fixing Pre-laminated medium density fibre board conforming to IS: 14587:1998 marked, with one side decorative lamination and other side balancing lamination Grade-I(exterior grade), in shelves with screws and fittings wherever required, edges to be sealed with PVC edge bending tape 2.00 mm thick of approved brand (fittings to be paid separately).		
9.80.1	18 mm thick	sqm	882.49
9.80.2	25 mm thick	sqm	1,175.62



9.81	Providing and fixing in wall lining medium density fibre board IS:14587:1998 marked, Pre-laminated with one side decorative lamination and other side balancing lamination, with necessary fixing arrangement and screws etc. all complete.		
9.81.1	12 mm thick.	sqm	745.61
9.81.2	18 mm thick.	sqm	892.92
9.81.3	25 mm thick.	sqm	1,196.83
9.82	Providing and fixing 25mm thick pre-laminated medium density fibre board exterior grade ( Grade-I) IS:14587:1998 marked with one side decorative and other side balancing lamination, for cupboard shutters edges to be sealed with PVC edge bending tape 2.00 mm thick of approved brand,including ISI marked nickel plated bright finishing M.S. piano hinges Conforming to IS:3818 with necessary screw etc. all complete.	sqm	1,323.63
9.83	Providing and fixing skirting with Pre-laminated medium density fibre board exterior grade (Grade-I) conforming to IS: 14587:1998 marked,with (one side decorative and other side balancing lamination and edges to be sealed with PVC edge bending tape 2.00 mm thick of approved brand with necessary fixing arrangements and screws, including drilling necessary holes for rawl plugs etc. all complete.		
9.83.1	18 mm thick.	sqm	1,284.12
9.83.2	25 mm thick.	sqm	1,588.02

9.84	Providing and fixing fire resistant door frame of section 50 x 60 mm on horizontal side & 35 x 60 mm on vertical sides having built in rebate made out of 1.6 mm thick GI sheet ( Zinc coating not less than 120gm/m <sup>2</sup> ) suitable for mounting 120 min Fire Rated Glazed Door Shutters. The frame shall be filled with Mineral wool Insulation having density min 96Kg/m <sup>3</sup> . The frame will have a provision of G.I. Anchor fastners 14 nos ( 5 each on vertical style & 4 on horizontal style of size M10 x 80 ) suitable for fixing in the opening along with Factory made Template for SS Ball Bearing Hinges of Size 100x89x3mm for fixing of fire rated glazed shutter.The frame shall be finished with a approved fire resistant primer or Powder coating of not less than 30 micron in desired shade as per the directions of Engineer - in- charge . (Cost of SS ball bearing hinges is excluded).	metre	1,253.74
9.85	Providing and fixing 60 mm thick glazed fire resistant door shutters of 120 min Fire Rating confirming to IS:3614 (Part II) or EN1634-1:1999, tested and certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame,g of vertical styles, top rail & side rail 60 mm x 60 mm consistin wide and bottom rail of 110 mm x 60 mm made out of 1.6mm thick G.I. sheet (zinc coating not less than 120gm/m <sup>2</sup> ) duly filled mineral wool insulation having density min 96 kg/m <sup>3</sup> and fixing with necessary stainless steel ball bearing hinges of size 100x89x3mm of approved make, including applying a coat of approved fire resistant primer or powder coating not less than 30 micron etc all complete as per direction of Engineer-in-charge (panelling to be paid for seperately).	sqm	6,815.24

SUB HEAD : 10.0			
STEEL WORK			
BASIC RATES (10.0 STEEL WORK)			
Code No.	Description	Unit	Rate
0100	Bandhani	day	714.00
0102	Blacksmith 1st class	day	784.00
0103	Blacksmith 2nd class	day	714.00
0112	Carpenter 2nd class	day	714.00
0114	Beldar	day	645.00
0116	Fitter (grade 1)	day	784.00
0119	Glazier	day	714.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0139	Skilled Beldar (for floor rubbing etc.)	day	714.00
0595	Bright finished or black enameled mild steel butt hinges 100x58x1.90 mm	10 Nos	80.00
0969	Pulley 25 mm dia	each	48.00
0973	Rolling shutter made of 80x1.25 mm machine rolled laths	sqm	1,400.00
0974	Top cover for rolling shutters 1.25 mm thick	metre	800.00
0975	27.5 cm long wire spring grade No. 2 for rolling shutters	kg	300.00
0976	Ball bearing for rolling shutters	each	260.00
0977	Extra for mechanical devices chain and cranked operation for operating rolling shutters: exceeding 10.00 sqm and up to 16.80 sqm area of door	sqm	800.00
0978	Extra for mechanical devices chain and cranked operation for operating rolling shutters: exceeding 16.80 sqm area of door	sqm	800.00
1002	Mild steel round bar 12 mm dia and below	quintal	4,850.00
1003	Mild steel round bar above 12 mm dia	quintal	4,750.00
1007	Structural steel such as tees, angles channels and R.S. joists	quintal	4,950.00
1008	Flats up to 10 mm in thickness	quintal	4,850.00
1009	Flats exceeding 10 mm in thickness	quintal	4,950.00
1010	Mild steel plates	quintal	5,400.00
1011	Steel glazed door, window/ ventilator, all members	kg	54.00
1013	Mild steel sheets of 1.00 mm thickness for tanks	quintal	4,850.00
1019	Mild steel hooks	each	32.00
1020	Mild steel rivets	quintal	5,100.00
1034	Bolts and nuts up to 300 mm in length	quintal	5,200.00
1035	Bolts and nuts above 300 mm in length	quintal	5,300.00
1036	Iron pintels including welded pin	each	37.00
1143	Steel beading 10 x 10 x 1.6 mm (Box Type )	metre	27.00
1214	Welding by gas plant	cm	2.00
1215	Welding by electric plant	cm	2.00

1221	20 mm dia holding down bolts	quintal	6,100.00
1222	Mild steel sheets with bolts and nuts to rest on pintels	each	120.00
1549	G.I. pipes 40 mm dia	metre	290.00
2205	Carriage of Steel	tonne	145.72
2271	Carriage of G.I. pipes below 100 mm dia	tonne	145.72
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10 kg/sqm)	sqm	309.00
2407	Float glass sheet of nominal thickness 5.5 mm (weight not less than 13.50 kg/sqm)	sqm	515.00
2506	Carbon Steel galvanised (min 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10mm x 60mm	10 Nos	270.00
2507	Carbon Steel galvanised (min 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10mm x 80mm	10 Nos	312.00
2508	Carbon Steel galvanised (min 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10mm x 120mm	10 Nos	380.00
2509	Carbon Steel galvanised (min 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10mm x 140mm	10 Nos	468.00
2510	Carbon Steel galvanised (min 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10mm x 160mm	10 Nos	598.00
4001	Stainless steel (Grade-304)hollow section round/square tubes	kg	230.00
4002	Stainless steel bolts/square bar and plates	kg	120.00
4006	Pressed steel door frames (mild steel sheet 1.60 mm) Profile "B"	metre	200.00
4007	Pressed steel door frames (mild steel sheet 1.60 mm) Profile "C"	metre	220.00
4008	Pressed steel door frames (mild steel sheet 1.60 mm) Profile "E"	metre	250.00
4009	Mild steel tubes hot finished welded type	kilogram	60.00
4010	Mild steel tubes hot finished seamless type	kilogram	70.00
4011	Mild steel tubes electric resistant or induction butt welded	kilogram	50.00

4012	Circular C.I. Box for ceiling fan internal dia 140 mm ,73 mm height ,top lid of 1.5 mm thick M.S sheet	each	55.00
4013	Pulley 40 mm dia	each	35.00
7029	Galvanised wire mesh of average width of aperture 1.4 mm and nominal dia of wire 0.63 mm	sqm	250.00
7044	Rolling shutters of 80x0.90 mm laths	sqm	1,300.00
7045	Rolling shutters of 80x1.2 mm laths	sqm	1,375.00
7046	Top cover of Rolling shutters 0.90 mm thick	metre	450.00
7047	Top cover of Rolling shutters 1.20 mm thick	metre	560.00
7068	Extra for providing grilled rolling shutters with 8 mm dia M.S. rod	sqm	500.00
8737	Stainless steel wire guage (Grade-304) aperture 1.4 mm and 0.50 mm dia wire	kg	413.00
9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

<b>10.0 STEEL WORK</b>			
Code No.	Description	Unit	Rates
10.1	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	65.14
10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	78.37
10.3	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	sqm	6,578.15
10.4	Providing and fixing 1 mm thick M.S. sheet sliding-shutters, with frame and diagonal braces of 40x40x6 mm angle iron, 3 mm M.S. gusset plates at the junctions and corners, 25 mm dia pulley, 40x40x6 mm angle and T- iron guide at the top and bottom respectively, including applying a priming coat of approved steel primer.	sqm	3,762.05
10.5	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.		
10.5.1	Using M.S. angles 40x40x6 mm for diagonal braces	sqm	3,346.81
10.5.2	Using flats 30x6mm for diagonal braces and central cross piece	sqm	3,230.61

10.6	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.		
10.6.1	80x1.25 mm M.S. laths with 1.25 mm thick top cover	sqm	2,106.16
10.6.2	80x1.20 mm M.S. laths with 1.20 mm thick top cover	sqm	2,007.81
10.6.3	80x0.90 mm M.S. laths with 0.90 mm thick top cover	sqm	1,903.23
10.7	Providing and fixing ball bearing for rolling shutters.	each	296.94
10.8	Extra for providing mechanical device chain and crank operation for operating rolling shutters.		
10.8.1	Exceeding 10.00 sqm and upto 16.80 sqm in the area	sqm	776.09
10.8.2	Exceeding 16.80 sqm in area	sqm	776.09
10.9	Extra for providing grilled rolling shutters manufactured out of 8 mm dia M.S. bar instead of laths as per design approved by Engineer-in-charge, (area of grill to be measured).	sqm	468.27
10.10	Fixing standard steel glazed doors, windows and ventilators in walls, including fixing of float glass panes with glazing clips and special metal-of approved make, or metal beading with screws, (only steel sash putty windows, glass panes cut to size and glazing clips or metal beading with screws, shall be supplied by department free of cost.		
10.10.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	kg	48.55
10.10.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	kg	24.08

10.11	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, (sectional weight of only steel members shall be measured for payment).		
10.11.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	kg	122.96
10.11.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	kg	76.41
10.12	Extra for providing and fixing steel beading of size 10 x 10 x 1.6 mm (box type), approved shape and section with screws instead of glazing clips and metal sash putty, in steel doors, windows, ventilators and composite units.	metre	32.17
10.13	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.		
10.13.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	kg	80.26
10.13.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	kg	76.55



10.14	Providing and fixing pressed steel door frames conforming to IS: 4351, manufactured from commercial mild steel sheet of 1.60 mm thickness, including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25 mm, or base ties of 1.60 mm, pressed mild steel welded or rigidly fixed together by mechanical means, including M.S. pressed butt hinges 2.5 mm thick with mortar guards, lock strike-plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge:		
10.14.1	Profile B		
10.14.1.1	Fixing with adjustable lugs with split end tail to each jamb	metre	311.15
10.14.1.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	metre	303.21
10.14.2	Profile C		
10.14.2.1	Fixing with adjustable lugs with split end tail to each jamb	metre	329.88
10.14.2.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	metre	321.93
10.14.3	Profile E		
10.14.3.1	Fixing with adjustable lugs with split end tail to each jamb	metre	357.98
10.14.3.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	metre	350.04
10.15	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with rectangular/ L-Type sections, made of 1.60 mm thick M.S. Sheet, joints mitred, welded and grinded finish, with profiles of required size, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.		
10.15.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	kg	102.59
10.15.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	kg	93.52

10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.		
10.16.1	Hot finished welded type tubes	kg	108.43
10.16.2	Hot finished seamless type tubes	kg	118.27
10.16.3	Electric resistance or induction butt welded tubes	kg	98.60
10.17	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete.	each	130.17
10.18	Providing and fixing circular/ Hexagonal cast iron or M.S. sheet box for ceiling fan clamp, of internal dia 140 mm, 73 mm height, top lid of 1.5 mm thick M.S. sheet with its top surface hacked for proper bonding, top lid shall be screwed into the cast iron/ M.S. sheet box by means of 3.3 mm dia round headed screws, one lock at the corners. Clamp shall be made of 12 mm dia M.S. bar bent to shape as per standard drawing.	each	129.64
10.19	Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.	kg	61.95
10.20	Providing and fixing bolts including nuts and washers complete.	kg	98.11
10.21	Providing and fixing M.S. rivets of sizes in position.	kg	166.50
10.22	Welding by gas or electric plant including transportation of plant at site etc. complete.	cm	2.38
10.23	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.		
10.23.1	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	kg	71.58
10.23.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	kg	99.61

10.24	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works,including applying priming coat of approved steel primer.		
10.24.1	M.S. tube	kg	110.01
10.24.2	E.R.W. tubes	kg	105.28
10.24.3	G.I. pipes	kg	126.14
10.25	Providing and fixing carbon steel galvanised ( minimum coating 5 micron)dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry,etc. as per direction of Engineer-in-charge.		
10.25.1	10 x 60 mm	each	78.19
10.25.2	10 x 80 mm	each	82.11
10.25.3	10 x 120 mm	each	101.22
10.25.4	10 x 140 mm	each	109.45
10.25.5	10 x 160 mm	each	134.37
10.26	Providing and fixing stainless steel ( Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts,fasteners etc.).	kg	428.58
10.27	Providing & fixing fly proof wire gauze to windows, clerestory windows & doors with M.S. Flat 15x3 mm and nuts & bolts complete.		
10.27.1	Galvanised M.S. Wire gauze with 0.63 mm dia wire and 1.4 mm aperture on both sides	sqm	512.54
10.27.2	Stainless steel (grade 304) wire gauze of 0.5 mm dia wire and 1.4 mm aperture on both sides	sqm	680.09
10.28	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with :		
10.28.1	4.0 mm thick glass panes	sqm	658.21
10.28.2	5.5 mm thick glass panes	sqm	870.45

10.29	Providing and fixing angle iron frames for doors, windows and ventilators of mild steel Angle sections of size 35x35x5 mm, joints mitred and welded by angle iron 35x35x5 mm or 35x 5 mm flat pieces to the existing T-iron frame or to the wall with dash fastener,including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer, all complete as per the direction of Engineer-In-charge.	kg	72.59

<b>SUB HEAD : 11.0</b>			
<b>FLOORING</b>			
BASIC RATES (SH: 11.0 FLOORING)			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	day	800.00
0013	Machine for rubbing of floors	day	300.00
0100	Bandhani	day	714.00
0101	Bhisti	day	714.00
0103	Blacksmith 2nd class	day	714.00
0111	Carpenter 1st class	day	784.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0126	Mason (for ornamental stone work) 1st class	day	784.00
0127	Driver (for Road Roller, Concrete Mixer, Truck etc.)	day	784.00
0130	Mistry	day	784.00
0139	Skilled Beldar (for floor rubbing etc.)	day	714.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	1,400.00
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	1,350.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	1,350.00
0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	1,400.00
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	34,790.00
0367	Portland Cement	tonne	5,000.00
0368	White Cement	tonne	11,200.00
0682	Oxidised mild steel screws 50 mm	100 Nos	76.00
0784	Marble dust/ powder	cum	1,130.00
0785	Marble chips up to 4 mm and down size White &	quintal	189.00
0788	Marble chips large size above 4 mm White & black	quintal	250.00
0874	Black colour dark shade pigment	kilogram	70.00
0875	Red, chocolate, orange, buff or yellow (red oxide of iron) light shade pigment	kilogram	60.00
0876	Green or blue medium shade pigment	kilogram	56.00
0982	Coarse sand	cum	1,500.00
0983	Fine sand	cum	900.00
1007	Structural steel such as tees, angles channels and R.S. joists	quintal	4,950.00
1008	Flats up to 10 mm in thickness	quintal	4,850.00
1149	Glass strip 4 mm thick 40 mm deep	metre	20.00
1164	Red sand stone slab 40 mm thick (un-dressed)	sqm	230.00

1165	White sand stone slab 40 mm thick (un-dressed)	sqm	250.00
1168	Kota stone slab 20 mm to 25 mm thick (semi-	sqm	320.00
1187	First class teak wood in scantling	10 cudm	880.00
1190	Second class teak wood in planks	10 cudm	791.00
1194	Second class deodar wood in planks	10 cudm	500.00
1201	Precast terrazzo tiles 22 mm thick (light shade)	sqm	285.00
1202	Precast terrazzo tiles 22 mm thick (medium shade)	sqm	265.00
1203	Precast terrazzo tiles 22 mm thick (dark shade)	sqm	245.00
1215	Welding by electric plant	sqm	2.00
1227	Chequered terrazzo tiles 22 mm thick (light shade)	sqm	275.00
1228	Chequered terrazzo tiles 22 mm thick (medium	sqm	300.00
1229	Chequered terrazzo tiles 22 mm thick (dark shade)	sqm	260.00
1231	Extra for selected planks of second class teakwood	sqm	150.00
1240	18 mm thick Italian Marble stone slab, Perlato (slab area up to 0.5 sqm).	sqm	3,209.00
1241	commercial LPG cylinder	kg	84.00
1242	Glass mosaic tiles (20 mm x 20 mm x 4 mm)	sqm	2,049.00
1243	Tile fixing chemical adhesive	kg	8.70
1244	Cement Polymer Grout Compound	kg	13.00
1245	Acid for cleaning tiles	litre	18.00
2201	Carriage of Bricks	1000 nos.	437.15
2202	Carriage of Stone aggregate below 40 mm nominal	cum	163.93
2203	Carriage of Coarse sand	cum	163.93
2204	Carriage of Timber	cum	187.35
2205	Carriage of Steel	tonne	145.72
2209	Carriage of Cement	tonne	145.72
2211	Carriage of Tar / Bitumen	tonne	163.93
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	145.72
2261	Carriage of Fine sand	cum	163.93
2268	Carriage of Marble dust and/or marble chips	cum	163.93
2500	Extra for selected planks of second class deodar	10 cudm	113.00
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5	1000 nos.	4,590.00
2708	Truf Paver (500 x 500 x 40 mm)	sqm	510.00
2709	Ceremic Tiles Pieces for Crazy Flooring	quintal	145.00
2710	White marble makrana second quality plain veined	quintal	160.00
2711	FS800H Grade Flooring Panel (Size 600 mm x600 mm x32 mm)	each	740.00
2712	Zinc Electroplated Pedestals - 300 mm	each	145.00
2713	Zinc Electroplated Pedestals - 450 mm	each	210.00
2714	Zinc Electroplated Tube Stinger	each	70.00
2715	Machine Screw for Fixing	each	3.00
2750	8 mm thick granite stone tiles (mirror polished of all	sqm	690.00
2751	8 mm thick marble tiles (polished) Raj Nagar	sqm	400.00

6001	White marble slab Makrana second quality plain veined 18 mm thick	sqm	1,450.00
6007	Pink marble slab plain 18 mm thick	sqm	685.00
6010	Udaypur green marble slab plain 18 mm thick	sqm	620.00
6019	Black Zebra marble slab plain 18 mm thick	sqm	1,000.00
7024	Acid Proof cement	sqm	7,800.00
7048	Rawl plug 50 mm (designation 10 nos)	each	22.00
7070	Chequered precast cement concrete tiles 22 mm	sqm	370.00
7071	White marble Raj Nagar plain 18 mm thick upto 0.50	sqm	550.00
7077	Acid and alkali resistant tiles 300x300 mm size, 10	10 nos	500.00
7236	Precast chequered cement tiles 22 mm thick Dark shade using ordinary cement	sqm	225.00
7237	Precast chequered cement tiles 22 mm thick medium shade using 50% white cement 50% ordinary cement	sqm	335.00
7254	Hardening compound	litre	36.00
7388	Dash hold fastener 12.5mm dia, 50 mm long with 6 mm dia bolt	sqm	10.00
7800	Ceramic Glazed Tiles 1st quality minimum thickness 5mm in all colours shades and designs except burgundy, bottle green, black	sqm	190.00
7801	Ceramic Glazed Tiles 1st quality 300 x 300 mm in all shades and designs of White, Ivory, grey, Fume Red brown etc.	sqm	175.00
7802	Ceramic Glazed Tiles 1st quality 300 x 300 in all shades designs except White, Ivory, Grey, Fume Red	sqm	300.00
7803	Rectified Ceramic Glazed Tiles 1st quality 300 x 300 mm or more in all shades designs White, Ivory, Grey, Fume Red Brown etc.	sqm	340.00
7804	Rectified Ceramic Glazed Tiles 1st quality 300 x 300	sqm	400.00
7850	Agaria White marble slab plain 18 mm thick	sqm	950.00
8620	Vitrified floor tile 50x50 cm conforming to IS :15622 :2006 group( B1a)	sqm	500.00
8621	Vitrified floor tile 60x60 cm conforming to IS :15622 :2006 group( B1a)	sqm	560.00
8622	Vitrified floor tile 80x80 cm conforming to IS :15622 :2006 group( B1a)	sqm	900.00
8623	Vitrified floor tile 100x100 cm conforming to IS :15622 :2006 group( B1a)	sqm	1390.00
8624	Border Tile 200 x 75 mm	sqm	16.00
8682	Epoxy Grout	kg	380.00
8731	High polymer modified quickset tile adhesive	kg	9.00
9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

<b>11.0 FLOORING</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rates</b>
11.1	Brick on edge flooring with bricks of class designation 7.5 on a bed of 12 mm cement mortar, including filling the joints with same mortar, with common burnt clay non modular bricks:		
11.1.1	1:4 (1 cement : 4 coarse sand)	sqm	655.90
11.1.2	1:6 (1cement : 6 coarse sand)	sqm	628.74
11.2	Dry brick on edge flooring in required pattern with bricks of class designation 7.5 on a bed of 12 mm mud mortar, including filling joints with sand, with common burnt clay non modular bricks.	sqm	513.31
11.3	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.		
11.3.1	40 mm thick with 20 mm nominal size stone aggregate	sqm	381.50
11.4	52 mm thick cement concrete flooring with concrete hardener topping,under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	sqm	599.13
11.5	62 mm thick cement concrete flooring with concrete hardener topping,under layer 50 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate, 6mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacture's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	sqm	650.06
11.6	Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1cement : 3 coarse sand), finished with a floating coat of neat cement.		



11.6.1	18 mm thick	sqm	399.53
11.7	Cement concrete pavement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm	cum	5,571.06
11.8	Extra for making chequers of approved pattern on cement concrete floors, steps, landing, pavements etc.	sqm	48.51
	STONE FLOORING		
11.9	Marble stone flooring with 18 mm thick marble stone, as per sample of marble approved by Engineer-in-charge, over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry, including rubbing and polishing complete with :		
11.9.1	Makrana white second quality	sqm	2,364.22
11.9.2	Raj Nagar plain	sqm	1,394.89
11.9.3	Agaria White	sqm	1,825.71
11.9.4	Black Zebra	sqm	1,879.54
11.9.5	Udaipur green marble	sqm	1,470.28
11.9.6	Pink plain marble	sqm	1,540.28
11.10	Extra for pre finished nosing to treads of steps of marble stone.	metre	415.31
11.11	Extra for marble stone flooring in treads of steps and risers using single length up to 2.00 metre.	sqm	491.05
	KOTA STONE FLOORING		
11.12	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :		
11.12.1	25 mm thick	sqm	1,194.62
11.13	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	sqm	1,426.99
	WOODEN FLOORING		
11.14	25 mm wooden planking, tongued and grooved in flooring, including fixing with iron screws complete with :		
11.14.1	Second class teak wood	sqm	2,931.57
11.14.2	Second class deodar wood	sqm	1,960.07

11.15	38 mm thick wood block flooring of first class teak wood laid over 25 mm thick leveling layer of cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 10 mm nominal size) to be paid separately, coated with a thin layer of hot bitumen penetration 80/25 (blown type) @ 2.45 kg per sqm, including fixing blocks in position after dipping in hot bitumen (blown type) up to half depth, planed, levelled smooth and finished complete.	sqm	7,380.38
11.16	Providing and fixing M.S. angle 50x50x5 mm to act as nosing with lugs of M.S. flat 10x5 mm, 10 cm long, forked at end 60cm apart (minimum three lugs to be provided), including necessary welding and applying a priming coat of approved primer on exposed surface etc. complete.	KG	100.00
	CERAMIC GLAZED TILES		
11.17	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	sqm	744.42
11.18	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigment etc., complete.	sqm	654.92

11.18A	Providing and fixing 1st quality ceramic glazed floor tiles conforming to IS : 15622 (thickness to be specified by the manufacturer ) of approved make in all colours, shades except burgundy, bottle green,black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	656.95
11.19	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White,Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @3.3kg/sqm including pointing the joints with white cement and matching pigments etc., complete.	sqm	774.94
11.20	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours White,Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement: 4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and matching pigments etc., complete.	sqm	799.96
11.21	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades,except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigments etc., complete.	sqm	857.57
	VITRIFIED FLOOR TILES		

11.22	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and matching pigments etc., complete.		
11.22.1	Size of Tile 500x500 mm	sqm	934.05
11.22.2	Size of Tile 600x600 mm	sqm	991.66
11.22.3	Size of Tile 800x800 mm	sqm	1,315.97
11.22.4	Size of Tile 1000x1000 mm	sqm	1,786.37
11.23	Deduct for not using 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) bedding in laying of floor tiles and jointing with grey cement slurry @ 3.3kg/sqm	sqm	514.71
11.24	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477, in average 3mm thickness.	sqm	443.52
11.25	Crazy ceramic tile flooring, with under layer 12 mm thick cement mortar 1:4 (1 cement: 4 coarse sand), with joints not exceeding 5 mm, including filling the gaps with ordinary cement mixture & mixing with synthetic polyester fibre, triangular in shape having specific gravity of 1.34 to 1.40, cross section size ranging from 10 to 40 micron & length upto 6 mm , mixing fibre @ 125 grams per 50 kg of cement in cement mortar, including providing and mixing water proofing material in mortar @ 1 kg per 50 kg of cement, all complete as per direction of Engineer-in-charge.	sqm	570.82
11.26	Providing and laying 500x500x40 mm thick Turf paver (Turf pave XD) on 150 mm thick sub grade of compacted bed of 20 mm thick nominal size stone aggregate and base course and filling with 150 mm thick jamuna sand, including spreading, well ramming, consolidating and finishing smooth etc. all complete as per direction of Engineer-in-charge.	sqm	1,129.10

11.27	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joint with white cement & matching pigments etc. complete.		
11.27.1	Size of Tile 500x500 mm	sqm	968.94
11.27.2	Size of Tile 600x600 mm	sqm	1,026.55
11.27.3	Size of Tile 800x800 mm	sqm	1,352.93
11.27.4	Size of Tile 1000x1000 mm	sqm	1,823.33
11.27A	Providing and fixing glazed screen printed border tile 75mm wide having thickness 5mm, of approved quality & make, in all shades, design and prints, in dado, over 12mm thick bed of cement mortar 1:3 (1 Cement : 3 Coarse sand) and jointing with grey cement slurry @ 3.3 kg/sqm including pointing with white cement mixed with pigment of matching shade, all complete as approved by Engineer - in - Charge.	metre	118.58
11.28	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).		
11.28.1	Size of Tile 500x500 mm	sqm	1,115.70
11.28.2	Size of Tile 600x600 mm	sqm	1,173.31
11.28.3	Size of Tile 800x800 mm	sqm	1,499.68
11.28.4	Size of Tile 1000x1000 mm	sqm	1,970.08
11.29	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling /grouting and finishing complete as per direction of Engineer-in-charge.		
11.29.1	Size of Tile 500x500 mm	sqm	218.51
11.29.2	Size of Tile 600x600 mm	sqm	181.06
11.29.3	Size of Tile 800x800 mm	sqm	143.61
11.29.4	Size of Tile 1000x1000 mm	sqm	102.62

11.30	Providing and laying Vitrified tiles in floor with different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).		
11.30.1	Size of Tile 500x500 mm	sqm	1,018.57
11.30.2	Size of Tile 600x600 mm	sqm	1,076.18
11.30.3	Size of Tile 800x800 mm	sqm	1,402.56
11.30.4	Size of Tile 1000x1000 mm	sqm	1,872.96
11.31	Deduct for not grouting the joints with white cement and matching pigment in the items of fixing of vitrified tiles.	sqm	8.19
11.32	Providing and laying machine cut, mirror polished, Italian Marble stone flooring laid in required pattern in linear portion of the building all complete as per architectural drawings, with 18 mm thick stone slab laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm, including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.		
11.32.1	18 mm thick Italian Marble stone slab, Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	sqm	4,266.85
11.33	Providing and laying machine cut, mirror polished Marble stone flooring, in required design (Simple geometrical, abstract etc.) and in patterns in combination with Italian marble stones of different colours, shades and finished surface texture etc., in linear portions of the building, all complete as per the architectural drawings, with 18 mm thick stone slab laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.		
11.33.1	18 mm thick Italian Marble stone slab, Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	sqm	4,472.58

11.34	Providing and fixing Glass mosaic tiles on finished plain wall surface of size 20 mm x 20 mm x 4 mm in all colour, design , fixing in approved design. The glass mosaic tiles shall be fixed on the wall surface with the help of approved adhesive applied at the rate of 2.5 kg per sqm and grouting of the same. All completed as per direction of Engineer-in-charge.	sqm	2,297.75
	comprising of modular load bearing floor panels supported on G.I. rectangular stinger frame work and G.I. Pedestal etc. all complete, as per the architectural drawings,as specified and as directed by Engineer-in-charge consisting of a) Providing at required spacing to form modular framework, pedestals made out of GI tube of thickness minimum 2 mm and 25 mm outer diameter, fully welded on to the G.I. Base plate of size 100mm x 100mm x 3mm at the bottom of the pedestal tube, G.I. pedestal head of size 75mmx75mmx3.5 mm welded with GI fully threaded stud 16mm outer diameter with two GI Check nuts screwed on the stud for level adjustment upto 50mm, locking and stabilizing the pedestal head in position at the required level. The pedestals shall be fixed to the subfloor (base) through base plate using epoxy based adhesive of approved make or the machine screw with rawl plug.b) Stringers system in all steel construction hot dipped galvanized of rectangular size 570x20x30x0.80mm thick having Providing and fixing removable raised/false access flooring with system and its components of approved make for different plenum height with possible height adjustment upto 50 mm, holes at both ends for securing the stringers on to the pedestal head using fully threaded screws ensuring maximum lateral stability in all directions		

	<p>, the grid formed by the pedestal and stringer assembly shall receive the floor panel, this system shall provide adequate solid, rigid support for access floor panel, the system shall provide a minimum clear uninterrupted clearance between the bottom of the floor for electrical conduits and wiring etc. all complete as per the architectural drawings, as specified and as directed by the Engineer-in-charge.c) Providing and fixing Access Floor panel of 600x600x32 mm medium grade Filled Steel anti static high pressure Lamination of 800H grade (FS800H). Access Floor panel shall be steel welded construction with an enclosed bottom pan with uniform pattern of 64 hemispherical cones.The top and bottom plates of Steel Gauges: top 0.6 mm and bottom 0.7 mm fused spot welded together (minimum 64 welds in each dome and 20 welds along each flange). The panel should be corrosion resistant epoxy coated for lifetime rust protection and cavity formed by the top and bottom plate is filled with Pyrogrip noncombustible Portland cementitious core mixed with lightweight foaming compound. The access floor shall be factory finished with Anti-static High Pressure laminate with Non Warp technology upto 1mm thickness for superior adhesion and Surface flatness within 0.75mm.The panel is to withstand</p>		
	<p>a Concentrated Load of 363 kgs applied on area 25mm x 25mm without collapse in the centre of the panel which is placed on four steel blocks.The panel will withstand and Uniformly Distributed Load (UDL) minimum 1250 kg/sqm and, an impact load of 50kg all complete as per the approved manufacturers specification and as per the direction of Engineer-in-charge. All specification must be printed on the side of the panel to ensure the quality of the product.</p>		
11.35.1	300 mm Finished Floor Height (FFH)	sqm	3,565.87
11.35.2	450 mm Finished Floor Height (FFH).	sqm	3,785.01



SUB HEAD : 12.0			
ROOFING			
BASIC RATES (SH: 12.0 ROOFING)			
Code No.	Description	Unit	Rate
0013	Machine for rubbing of floors	day	300.00
0100	Bandhani	day	714.00
0101	Bhisti	day	714.00
0102	Blacksmith 1st class	day	784.00
0103	Blacksmith 2nd class	day	714.00
0111	Carpenter 1st class	day	784.00
0112	Carpenter 2nd class	day	714.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0116	Fitter (grade 1)	day	784.00
0117	Assistant Fitter or 2nd class Fitter	day	714.00
0122	Mason (for plaster of paris work) 1st class	day	784.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0128	Mate	day	714.00
0130	Mistry	day	784.00
0131	Painter	day	714.00
0139	Skilled Beldar (for floor rubbing etc.)	day	714.00
0155	Mason (average)	day	749.00
0222	Seam bolts and nuts 6 mm dia and 25 mm long	10 Nos	10.00
0223	Fibre (high impact poly propylene reinforced) cement corrugated sheet 6 mm thick	sqm	225.00
0224	Fibre (high impact poly propylene reinforced) cement close fitting adjustable ridge	metre	210.00
0225	Fibre (high impact poly propylene reinforced) cement corrugate serrated adjustable ridge	metre	210.00
0226	Fibre (high impact poly propylene reinforced) cement plain wing adjustable ridge	metre	210.00
0227	Fibre (high impact poly propylene reinforced) cement unserrated adjustable ridge for hips	metre	210.00
0228	Fibre (high impact poly propylene reinforced) cement corrugated apron piece	metre	200.00
0229	Fibre (high impact poly propylene reinforced) cement eaves filler piece	each	175.00
0230	Fibre (high impact poly propylene reinforced) cement north light curves	metre	280.00
0231	Fibre (high impact poly propylene reinforced) cement ventilator curves	each	310.00
0232	Fibre (high impact poly propylene reinforced) cement barge boards boards 6 mm thick	metre	400.00
0233	Fibre (high impact poly propylene reinforced) cement ridge finial	pair	165.00

0234	Fibre (high impact poly propylene reinforced) cement special north light curves	each	555.00
0235	Fibre (high impact poly propylene reinforced) cement S type louvers	each	260.00
0236	Multi purpose fibre (high impact poly propylene reinforced) cement board 6 mm thick	sqm	210.00
0242	6 mm thick multipurpose cement bonded wood particle board conforming to IS : 14276	sqm	195.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	1400.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	1350.00
0308	Bhusa	quintal	500.00
0309	Paving bitumen of grade VG-10 of approved quality	tonne	25614.00
0314	Bitumen hot sealing compound : grade A	kg	29.00
0328	White face insulating board: 12 mm thick	sqm	235.00
0332	Natural colour insulating board: 12 mm thick	sqm	210.00
0336	Flame retardant face insulating board: 12 mm thick	sqm	320.00
0341	Flat pressed 3 layer particle board (medium density) Grade 1, 12 mm thick	sqm	288.00
0367	Portland Cement	tonne	5000.00
0368	White Cement	tonne	11200.00
0370	Coal (steam)	quintal	440.00
0452	Brass screws 25 mm	100 Nos	100.00
0637	Bright finished or black enameled mild steel screws 40 mm	100 Nos	60.00
0765	Hessian clothes	sqm	35.00
0771	Kerosene oil	litre	50.00
0811	Mud (dry)	cum	165.00
0845	Roofing paint for iron sheets in red colour	litre	120.00
0865	Pig lead	kg	130.00
0869	Plaster of Paris	kg	5.00
0870	Plug	each	10.00
0875	Red, chocolate, orange, buff or yellow (red oxide of iron) light shade pigment	kg	60.00
0886	Standard holder bat clamps for sand cast iron or cast iron pipes 150 mm dia	each	45.00
0966	Sand Cast iron plain shoe 150 mm dia	each	285.00
982	Coarse sand	cum	1500.00
0992	Galvanised steel plain sheets	quintal	5000.00
0994	Standard quality hard board sheet 3 mm thick	sqm	135.00
0996	Standard quality hard board sheet 4.5 mm thick	sqm	210.00
1001	Spun yarn	kg	50.00
1008	Flats up to 10 mm in thickness	quintal	4850.00
1015	mild steel expanded metal 20 x 60 mm strands 3.25 mm wide, 1.60 mm thick	sqm	280.00
1022	Galvanised steel bolts & nuts 6 mm dia and 25 mm long round head with slots	10 Nos	38.00
1023	Galvanised steel J or L hooks 8 mm dia	10 Nos	120.00

1024	Galvanised steel bolts & nuts 10 mm dia and 125 mm long round head with slots	each	9.00
1025	Mild steel bolts 6 mm dia and 25 mm long with hexagonal head	10 Nos	10.00
1031	Galvanised steel bolts & nuts 10 mm dia and 27 cm long both sides threaded with 4 galvanised steel nuts	each	20.00
1032	Galvanised steel bolts 10 mm dia and 7 cm long with nuts	each	6.00
1174	Red sand stone slab 45 mm to 50 mm thick (un-	sqm	260.00
1175	White sand stone slab 45 mm to 50 mm thick (un-	sqm	280.00
1190	Second class teak wood in planks	10 cudm	791.00
1196	First class kail wood in planks	10 cudm	300.00
1204	Precast heat resistant terrace tiles (size 300x300	sqm	409.00
1207	G.I. Limpet washer	100 Nos	21.00
1208	Bitumen washer	100 Nos	30.00
1209	G.I. plain washer thick	100 Nos	35.00
1210	G.I. plain washer thin	100 Nos	21.00
1211	G.I. plain washer for seam bolts	100 Nos	32.00
1213	Water proofing materials	kg	35.00
1219	Wire nails	kg	58.00
1220	Wire mesh (rabbit)	sqm	42.00
1331	M.S. Holder bat clamp of approved design for 100 mm S.C.I. pipe	each	30.00
1984	Common burnt clay F.P.S. bricks tile class designation 10	1000 Nos	4600.00
2202	Carriage of Stone aggregate below 40 mm nominal	cum	163.93
2203	Carriage of Coarse sand	cum	163.93
2204	Carriage of Timber	cum	187.35
2205	Carriage of Steel	tonne	145.72
2207	Carriage of Brick tiles	1000 Nos	262.29
2209	Carriage of Cement	tonne	145.72
2211	Carriage of Tar / Bitumen	tonne	163.93
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	145.72
2273	Carriage of A.C.sheet and accessories	tonne	145.72
2302	Carriage of G.I. sheet and accessories	tonne	145.72
2308	Carriage of Plaster of paris	tonne	145.72
3002	Polyvinyle chloride sheet 400 micron thick	sqm	45.00
3004	Stone ware spouts 100 mm dia 60 cm long	each	45.00
3050	Galvanised steel corrugated sheets	quintal	6000.00
4009	Mild steel tubes hot finished welded type	kg	60.00
4202	Red oxide Zinc chromate primer	litre	120.00
7009	12.5 mm thick tapered edge gypsum plain borad	sqm	140.00
7010	Galvanised Steel ceiling section (size 80x26x0.50 mm)	metre	46.00
7011	Galvanised Steel perimetre Channel (Size	metre	22.00
7012	Galvanised Steel intermediate Channel (Size 15x45x15x0.90 mm)	metre	38.00

7013	Galvanised Steel angle hanger (Ceiling angle) (Size	metre	12.00
7014	Galvanised Steel connecting clips (2.64 mm dia and 230 mm long GI wire)	each	4.00
7015	Galvanised Steel soffit cleat (Size 27x37x25x0.60	each	3.00
7016	Joint filler	kg	24.00
7017	Joint finisher	kg	21.00
7018	Joint tape roll	roll	90.00
7019	Dash fastner /chemical fastener	each	12.50
7020	All drive screws (for gypsum board)	100 Nos	58.00
7021	Primer (for gypsum board)	litre	70.00
7028	12.5 mm thick Fully Perforated gypsum board	sqm	380.00
7030	12.5 mm thick tapered edge gypsum fire resistant board	sqm	140.00
7031	12.5 mm thick tapered edge gypsum moisture resistant board	sqm	250.00
7050	PU Primer	sqm	50.00
7051	40 mm (average) PU spray having 40-45 kg/m3 density	sqm	350.00
7052	GI wire netting 3/4" x 24 G	sqm	26.00
7053	400 G polythene sheet	sqm	12.00
7090	Expanded polystyrene type N- Normal 50 mm thick	sqm	120.00
7091	Expanded polystyrene type - SE 50 mm thick	sqm	140.00
7187	C.I. grating 150 mm dia, weighing not less than 440	each	27.00
7188	uPVC pipes (working pressure 4 kg / cm <sup>2</sup> ) Single socketed pipe size 75 mm dia	metre	70.00
7189	uPVC pipes (working pressure 4 kg / cm <sup>2</sup> ) Single socketed pipe size 110 mm dia	metre	130.00
7190	U-PVC pipes (working pressure 4 kg / cm <sup>2</sup> ) Rubber (Seal) Ring 75 mm dia	each	8.00
7191	U-PVC pipes (working pressure 4 kg / cm <sup>2</sup> ) Rubber (Seal) Ring 110 mm dia	each	11.00
7192	uPVC coupler for UPVC drainage pipes 75 mm	each	18.00
7193	uPVC coupler for UPVC drainage pipes 110 mm	each	39.00
7194	uPVC pushfit coupler (single) 75 mm thick	each	18.00
7195	uPVC pushfit coupler (single) 110 mm thick	each	32.00
7196	uPVC single equal Tee (without door) 75x75x75 mm	each	46.00
7197	uPVC single equal Tee (without door) 110x110x110 mm	each	81.00
7198	uPVC single equal Tee (with door) 75x75x75 mm	each	59.00
7199	uPVC single equal Tee (with door) 110x110x110 mm	each	92.00
7208	UPVC bend 87.5° 75 mm bend	each	35.00
7209	UPVC bend 87.5° 110 mm bend	each	59.00
7212	UPVC plain shoe 75 mm bend	each	27.00
7213	UPVC plain shoe 110 mm bend	each	47.00
7214	UPVC pipe clip 75 mm bend	each	15.00
7215	UPVC pipe clip 110 mm bend	each	14.00

7231	Resin Bonded Glass wool 16 kg/m <sup>3</sup> : 50 mm thick	sqm	90.00
7232	Resin Bonded Glass wool 24 kg/m <sup>3</sup> : 50 mm thick	sqm	91.00
7238	High Albedo paint	kg	215.00
7266	Pressed clay tiles 20mm thick 250x250 mm size	1000 Nos	8000.00
7267	Plain ceiling tiles (BWP type phenol formaldehyde synthetic resin bonded) (600x600x12 mm)	each	105.00
7268	Semi perforated ceiling tiles (600 x 600x 12 mm)	each	100.00
7273	Resin Bonded Rockwool 48 kg/m <sup>3</sup>	sqm	110.00
7385	3 mm thick translucent white acrylic plastic sheet	sqm	490.00
7386	12 mm thick particle board ceiling tile	sqm	95.00
7388	Dash hold fastener 12.5 mm dia, 50 mm long with 6 mm dia bolt	each	10.00
7857	P.T.M.T. Grating square slit 150 mm	each	45.00
7904	Machine moulded common burnt clay tile bricks of class designation 12.5	1000 Nos	4600.00
8589	Calcium Silicate tegular edged ceiling tiles 495x495 mm and 15 mm thick on edges	sqm	685.00
8590	Galvanised Steel main Tee ceiling section Size 24x38x0.33 mm (3 metre long)	each	140.00
8591	Galvanised Steel perimeter wall Angle Size 24 x 24 x 0.40 mm (3.00 metre long)	each	90.00
8592	Galvanised Steel intermediate cross T section Size 24 x 25 x 0.33 mm (1.2 metre long)	each	45.00
8593	Galvanised Steel intermediate cross T section Size 24 x 25 x 0.33 mm ( 0.6 metre long)	each	22.00
8594	Galvanised steel soffit cleat (Size 25x35x1.60 mm)	each	4.50
8595	Wooden screws with plastic rawl plugs 35x8 mm	each	1.00
8597	GI Metal Tile Clip in Plain Beveled edge global white colour tiles of size 600x600 mm and 0.5 mm thick	sqm	710.00
8598	GI Metal Tile Clip in Perforated Beveled edge global white colour tiles of size 600x600 mm and 0.5 mm	sqm	800.00
8599	GI Metal Tile Lay-in Plain Tegular edge global white color tiles of Size 595x595 mm and 0.5 mm thick	sqm	625.00
8600	GI Metal Tile Lay-in Perforated Tegular edge global white color tiles of Size 595x595 mm and 0.5 mm	sqm	735.00
8601	PVC Laminated Gypsum Tiles (Square edge) of Size 595x595 mm and 12.5 mm thick	sqm	880.00
8602	Gypsum Tiles Fully Perforated Square edge of Size 595x595 mm and 12.5 mm thick	sqm	380.00
8604	Spring T-section 24x34x0.45 mm (3.00 meter long)	metre	220.00
8605	C Wall angle section 20x30x20x0.50 mm (3.00 meter	metre	110.00

8606	Main C Carrier Size 10x38x10x0.70 mm (3.00 meter long)	metre	130.00
8607	Spring T-connector	each	5.00
8608	C Carrier Connector	each	12.00
8609	C Suspension Clip	each	10.00
8610	Wire Coupling Clip	each	10.00
8611	Main T ceiling sections 24x38x0.3 mm (3 metre long)	each	130.00
8612	Perimeter wall angle 24 x 24 x 0.3 mm (3 metre long)	each	80.00
8613	Intermediate cross T-Section 24x25x0.3 mm (1.2 m long)	each	40.00
8614	Intermediate cross T-Section 24x25x0.3 mm (0.6 m long)	each	20.00
8615	Hanger rod 4 mm thick	each	10.00
8616	Adjustment clip 85x30x0.8 mm	each	6.00
8617	Soffit cleat (Size 27x37x25x1.60 mm)	each	5.00
8618	Dash fastner 6 mm dia, 50 mm long	each	10.00
8667	UV stabilised 2 mm thick plain FRP sheet	sqm	450.00
8668	UV stabilised 2 mm thick corrugated FRP sheet	sqm	525.00
8669	Mangalore ridge tiles 20 mm thick	each	8.00
8670	Mangalore tiles 20 mm thick	each	8.00
8671	Precoated galvanised iron profile sheet 0.50 mm TCT	sqm	375.00
8672	Precoated galvanised steel plain ridges 0.50 mm TCT	metre	225.00
8673	Precoated galvanised steel flashings/aprons 0.50mm	metre	235.00
8674	Precoated galvanised steel gutter	metre	440.00
8675	Precoated galvanised steel north light curves	metre	240.00
8676	Precoated galvanised steel barge board	metre	230.00
8677	Precoated galvanised steel crimp curve	sqm	235.00
8699	8 mm thick tapered edge calcium silicate board	sqm	270.00
8784	8 mm thick Calcium silicate perforated tiles of size 595 x595 mm	sqm	850.00
9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

<b>12.0 ROOFING</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rates</b>
12.1	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces),excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.		
12.1.1	1.00 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	sqm	924.25
12.1.2	0.80 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	sqm	794.82
12.1.3	0.63 mm thick with zinc coating not less than 275 gm/ m <sup>2</sup>	sqm	684.60
12.2	Extra for straight cutting in C.G.S. sheet roofing for making opening of area exceeding 40 sq. decimeter for chimney stacks, sky light etc.:		
12.2.1	1.00 mm thick	metre	66.92
12.2.2	0.80 mm thick	metre	53.55
12.2.3	0.63 mm thick	metre	53.55
12.3	Extra for circular cutting in C.G.S. sheet roofing for making opening of area exceeding 40 sq. decimeter:		
12.3.1	1.00 mm thick	metre	387.00
12.3.2	0.80 mm thick	metre	309.12
12.3.3	0.63 mm thick	metre	309.12
12.4	Providing ridges or hips of width 60 cm overall width plain G.S. sheet fixed with polymer coated J or L hooks, bolts and nuts 8 mm dia G.I. limpet and bitumen washers complete.		
12.4.1	0.80 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	metre	575.50
12.4.2	0.63 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	metre	525.60
12.5	Providing valleys of 90 cm wide overall in plain G.S. sheet fixed with polymer coated J, or L hooks, bolts and nuts 8 mm dia G.I. limpet and bitumen washers complete :		
12.5.1	1.60 mm thick with zinc coating not less than 350 gm/m <sup>2</sup>	metre	959.28

12.6	Providing and fixing of 40 cm overall width plain G.S. sheet fixed with polymer coated J or L hooks, bolts and nuts, G.I. limpet and bitumen washer complete, bent to shape and fixed in wall with cement mortar 1:3 (1 cement : 3 coarse sand).		
12.6.1	1.00 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	metre	490.14
12.7	Providing and fixing 15 cm wide, 45 cm overall semi-circular plain G.S. sheet gutter with iron brackets 40x3mm size, bolts, nuts and washers etc., including making necessary connections with rain water pipes complete.		
12.7.1	0.80 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	metre	568.30
12.7.2	0.63 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	metre	526.72
12.8	Providing high impact Polypropylene reinforced cement 6 mm thick corrugated sheets (as per IS: 14871) roofing up to any pitch and fixing with polymer coated J, or L hooks, bolts and nuts 8 mm dia. G.I. plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete (excluding the cost of purlins, rafters and trusses), including cutting sheets to size and shape wherever	sqm	323.47
12.9	Extra for straight cutting in polypropylene reinforced cement corrugated, semi-corrugated 6 mm thick sheet roofing for making openings of area exceeding 40 square decimeter for chimney stacks, skylights etc.	metre	53.55
12.10	Extra for circular cutting in polypropylene reinforced cement corrugated/ semi-corrugated 6 mm thick sheet roofing for making openings of area exceeding 40 square decimeter.	metre	147.88
12.11	Extra for providing and fixing wind ties of 40x 6 mm flat iron section.	metre	114.56
12.12	Providing and fixing ridges and hips in fibre cement high impact polypropylene reinforced roofing with suitable fixing accessories or self drilling fastener and EPDM washer etc. complete.		
12.12.1	Corrugated serrated adjustable ridges	metre	311.33
12.12.2	Plain wing adjustable ridges	metre	311.33
12.12.3	Close fitting adjustable ridges	metre	349.02
12.12.4	Unserrated adjustable hips	metre	310.63



12.13	Providing and fixing fibre cement high impact polypropylene reinforced roofing accessories in all colours with polymer coated J or L hooks,bolts and nuts and or G.I. seam bolts and nuts, G.I. plain and bitumen washers or with self drilling fastener and EPDM washer etc complete:		
12.13.1	Corrugated apron pieces	metre	255.08
12.13.2	Eave's filler pieces	metre	207.38
12.13.3	North light curves	metre	345.49
12.13.4	Ventilator curves	metre	375.17
12.13.5	Barge boards	metre	441.84
12.13.6	Ridge finials	pair	183.68
12.13.7	Special north light curves	each	614.99
12.13.8	S type louvers	metre	333.69
12.14	Providing flat iron brackets 50x3 mm size with necessary bolts,nuts and washers etc. for fixing asbestos cement / G.S. sheets gutters with purlins.	metre	53.90
12.15	Painting top of roofs with bitumen of approved quality @ 17kg per 10 sqm impregnated with a coat of coarse sand at 60 cudm per 10 sqm, including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete :		
12.15.1	With residual type petroleum bitumen of grade VG - 10	sqm	93.21
12.16	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :		
12.16.1	In 75x75 mm deep chase	metre	182.14
12.17	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	each	186.62
CEILING			
12.18	Providing and fixing insulating board ceiling of approved quality with necessary nails etc. complete (frame work to be paid separately) :		
12.18.1	Natural colour insulating board		
12.18.1.1	12 mm thick	sqm	541.91
12.18.2	White face insulating board		

12.18.2.1	12 mm thick	sqm	567.63
12.18.3	Flame retardant face insulating board		
12.18.3.1	12 mm thick	sqm	655.20
12.19	Providing and fixing flat pressed 3 layer medium density particle board or graded particle board (Grade I) IS: 3087 marked, in ceiling with necessary nails etc. complete (frame work to be paid separately):		
12.19.1	12 mm thick	sqm	621.74
12.20	Providing and fixing plain multipurpose cement board(Hight pressure steam cured) with suitable screws for cement particle board in ceiling etc. complete (frame work to be paid seperately).		
12.20.1	6 mm thick Cement fiber board as per IS: 14862	sqm	541.37
12.20.2	6 mm thick Cement bonded wood particle board as per IS:14276	sqm	525.91
12.21	Extra for Circular cutting including wastages in ceiling with:		
12.21.1	2nd class teak wood planks 20 mm thick	metre	444.50
12.21.2	Natural colour insulating board		
12.21.2.1	12 mm thick	metre	281.79
12.21.3	White face insulating board:		
12.21.3.1	12 mm thick	metre	285.01
12.21.4	Flame retardant face insulating board:		
12.21.4.1	12 mm thick	metre	295.89
12.21.5	Standard quality hard board sheet:		
12.21.5.1	3 mm thick	metre	272.09
12.21.5.2	4.5 mm thick	metre	281.75
12.22	Extra for providing and fixing ceiling to curved surfaces in narrow widths	sqm	261.10
12.23	Providing 10 mm thick plaster of Paris (gypsum anhydrous) ceiling up to a height of 5 m above floor level, over first class kail wood strips 25x6 mm with 10 mm gap in between and reinforced with rabbit wire mesh fixed to wooden frame (frame work to be paid separately):		
12.23.1	Flat surfaces	sqm	994.88
12.23.2	Curved surfaces	sqm	1,195.64
12.24	Extra for sunk or raised mouldings in the plaster of Paris (Gypsum anhydrous) ceiling.	sqm	340.03
12.25	Extra for providing plaster of Paris (Gypsum anhydrous) ceiling above 5 metres height from floor level.	sqm per metre height	153.23

12.26	Providing and fixing thermal insulation of ceiling (under deck insulation) with Resin Bonded Fibre glass wool conforming to IS : 8183, density 24kg / m <sup>3</sup> , 50mm thick, wrapped in 200 G Virgin Polythene bags, fixed to ceiling with metallic cleats (50x50x3 mm) @ 60 cm and wire mesh of 12.5 mm x 24 gauge wire mesh, for top most ceiling of building.	sqm	418.50
12.27	Providing and fixing thermal insulation with Resin Bonded Fibre glass wool conforming to IS: 8183. Density 16 kg/m <sup>3</sup> , 50 mm thick, wrapped in 200G Virgin Polythene bags placed over existing false ceiling and held in position by criss-crossing GI wire.	sqm.	169.96
12.28	Thermal Insulation of roofing with Expanded polystyrene fixed with suitable adhesive to the false ceiling as per the directions of the Engineer-in-charge:		
12.28.1	With Type N - Normal 50 mm thick	sqm	193.80
12.28.2	With Type SE - Self Extinguishing type 50 mm thick	sqm	214.41
	RAIN WATER SPOUT AND PIPE		
12.29	Providing and fixing 100 mm diameter and 60 cm long rain water spout in cement mortar 1:4 (1 cement : 4 fine sand).		
12.29.1	Stone ware spout	each	99.47
12.30	Providing and fixing M.S. holder bat clamps of approved design to C.I. or S.C.I. rain water pipes 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) and cost of cutting holes and making good the walls etc. :		
12.30.1	100 mm diameter	each	215.92
12.30.2	150 mm diameter	each	229.99
12.31	Providing lead caulked joints to sand cast iron rain water pipes and fittings:		
12.31.1	100 mm dia Pipe	each	310.84
12.31.2	150 mm dia Pipe	each	423.26
12.32	Providing, fixing and embedding sand cast iron accessories for rain water pipes in the masonry surrounded with 12 mm thick cement mortar of the same mix, as that of masonry (lead caulking will be paid for separately):		
12.32.1	Sand cast iron plain shoes :		
12.32.1.1	150 mm diameter	each	301.77

12.33	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion,(i) Single socketed pipes.		
12.33.1	75 mm diameter	metre	149.10
12.33.2	110 mm diameter	metre	223.83
12.34	Providing and fixing on wall face unplasticised - PVC moulded fittings/accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.		
12.34.1	Coupler		
12.34.1.1	75 mm	each	55.86
12.34.1.2	110 mm	each	83.97
12.34.2	Single pushfit Coupler		
12.34.2.1	75 mm	each	55.86
12.34.2.2	110 mm	each	77.42
12.34.3	Single tee with door		
12.34.3.1	75x75x75 mm	each	99.09
12.34.3.2	110x110x110 mm	each	143.82
12.34.4	Single tee without door		
12.34.4.1	75x75x75 mm	each	86.94
12.34.4.2	110x110x110 mm	each	133.53
12.34.5	Bend 87.5°		
12.34.5.1	75 mm bend	each	64.26
12.34.5.2	110 mm bend	each	92.40
12.34.6	Shoe (Plain)		
12.34.6.1	75 mm Shoe	each	56.77
12.34.6.2	110 mm Shoe	each	81.17
12.35	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length,including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.		
12.35.1	75 mm	each	217.60
12.35.2	110 mm	each	216.65
12.36	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	each	33.53

12.37	<p>Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts &amp; bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I.wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre,</p>		
	<p>with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills,diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with :</p>		
12.37.1	12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I	sqm	802.17
12.37.2	12.5 mm thick tapered edge gypsum fire resistant board conforming to IS: 2095- Part I	sqm	900.52

12.37.3	12.5 mm thick tapered edge gypsum moisture resistant board	sqm	910.35
12.37.4	Fully Perforated Gypsum Plaster Board of size 1200 x2400x12.5 mm having approx. 15 % perforated area with perforation size and pattern as approved by the Engineer-in-charge and as per manufacturer's specification, with all 4 side tapered and backed by acoustical tissue with NRC value not less than 0.60	sqm	1,038.21
12.38	Providing and fixing to the inlet mouth of rain water pipe PTMT (an Engineering Thermoplastic) grating square (Slit) 150 mm square with a height of 8 mm and weighing not less than 100 gms.	each	50.40
12.39	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel roovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866. The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.		
12.39.1	2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6" ) as specified	sqm	825.48
12.39.2	2 mm thick flat	sqm	733.95

12.40	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	sqm	470.09
12.41	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+ 0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete :		
12.41.1	Ridges plain (500 - 600mm)	metre	315.42
12.41.2	Flashings/ Aprons.( Upto 600 mm)	metre	288.99
12.41.3	North light curves	metre	325.68
12.41.4	Barge board (Upto 300 mm)	metre	268.94
12.41.5	Crimp curve	sqm	295.75
12.41.6	Gutter .(600 mm over all girth)	metre	777.42

12.42	<p>Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections ( galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main mm long dash fasteners, 4 mm GI adjustable rods with galvanised "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom</p>		
12.42.1	<p>GI Metal Ceiling Lay in plain Tegular edge Global white color tiles of size 595x595 mm, and 0.5 mm thick with 8 mm drop; made of G I sheet having galvanizing of 100 gms/sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum),including factory painted after bending.</p>	sqm	1,114.19
12.42.2	<p>GI Metal Ceiling Lay in perforated Tegular edge global white color tiles of size 595x595 mm and 0.5 mm thick with 8 mm drop; made of GI sheet having galvanizing of 100 gms/sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC (Noise Reduction Coefficient ) of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum),including factory painted after bending and perforation and backed with a black Glass fiber acoustical fleece.</p>	sqm	1,222.38



12.42.3	12.5 mm thick square edge PVC Laminated Gypsum Tile of size 595x595 mm, made of Gypsum plasterboard,manufactured from natural gypsum as per IS 2095 part I and laminated with white 0.16mm thick fire retardant PVC film on the face side and 12micron metalized polyester on the back side with all edges sealed with the face side PVC film which goes around and wraps the edges and is bonded to the edges and the back side metalized polyester film so as to make the tile a completely sealed unit.	sqm	1,364.27
12.42.4	12.5 mm thick fully Perforated Gypsum Board tile made from plasterboard having glass fibre conforming to IS:2095 part I, of size 595x595 mm, having perforation of 9.7x9.7 mm at 19.4 mm c/c with center borders of 48 mm and the side borders of 30 mm, backed with non woven tissue on the back side, having an NRC ( Noise Reduction Coefficient) of 0.79, with 50 mm resin bonded glass wool backing.	sqm	873.25
12.43	Providing and Fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross "T" of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main 'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked at middle of the 1200x 600 mm panel to from grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calicum silicate ceiling tiles of approved texture in the grid, including, cutting/ making opening"for services like diffusers, grills, light	sqm	1,203.09

Note :- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut outs) having area less than 0.30 sqm. The calcium silicate ceiling tile shall have NRC value of 0.50 (Minimum), light reflection > 85%, non-combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity <0.043 w/mK.

12.44	Providing and fixing Heat Resistant Terrace Tiles (300 mm x 300 mm x 20 mm) with SRI (solar refractive index) > 78, solar reflection > 0.70 and initial emittance > 0.75 on waterproof and sloped surface of terrace, laid on 20 mm thick cement sand mortar in the ratio of 1:4 (1 cement : 4 coarse sand) and grouting the joints with mix of white cement & marble powder in ratio of 1:1, including rubbing and polishing of the surface upto 3 cuts complete, including providing skirting upto 150 mm height along the parapet walls in the same manner.	sqm	1,011.43
12.45	Providing and laying roof insulation with 40 mm thick impervious sprayed, closed cell free Rigid Polyurethane foam over deck insulation conforming to IS - 12432 Pt. III (density of foam being 40-45 kg/cum), over a coat of polyurethane primer applied @ 6-8 sqm per litre, laying 400 G polythene sheet over PUF spray and providing a wearing course of 40 mm thick cement screed 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 20 mm nominal size) in chequered rough finish, in panels of 2.5 m x 2.5 m and embedding with 24 G wire netting and sealing the joints with polymerized mastic, all complete as per direction of Engineer-in-Charge.	sqm	954.77
12.46	Providing and fixing thermal insulation with Resin Bonded Fibre glass wool conforming to IS: 8183 having density 24 kg/m <sup>3</sup> , 50 mm thick, wrapped in 200G Virgin Polythene Bags fixed to wall with screw, rawel plug & washers and held in position by criss crossing GI wire etc. complete as per directions of Engineer-in-Charge.	sqm	215.15

12.47	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on interlocking metal grid of hot dipped galvanized steel sections ( galvanized @ 120 suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanized butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along		
12.47.1	8 mm thick fully perforated calcium silicate board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process to give stable crystalline structure with minimum compressive strength 225 kg/ sq. cm, bending strength 100 kg/sq. cm , of size 595x595 mm, having perforation of dia. 10 mm with minimum perforated area 18 % with non woven tissue on the back side, having an NRC ( Noise Reduction Coefficient) of 0.85, with 50 mm thick rockwool of 48 kg /cum backing.	sqm	1,296.05

12.48	Providing & fixing false ceiling at all height including providing & fixing of framework made of special section, power pressed from M.S. sheets and galvanised with zinc coating of 120 gms/ sqm (both side inclusive) as per IS : 277 and consisting of angle cleat of size 25mm wide x 1.6mm thick with flanges of 27mm and 37mm, at 1200mm c/c, one flange fixed to the ceiling with dash fastener 12.5mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25 x10 x0.50mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I channels 45 x15 x 0.90mm running at the spacing of 1200 mm c/c, to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26 mm each having lips of 10.5mm, at 450mm c/c, shall be fixed in a direction perpendicular to G.I intermediate channel with connecting clip made out of 2.64mm dia x 230mm long G.I wire at every junction, including fixing perimeter channels 0.50mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/ partitions with the help of Rawl plugs at 450mm centre, with 25mm long dry wall		
12.48.1	8 mm thick Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process.	sqm	931.28
12.49	Providing and fixing thermal insulation of ceiling (under deck insulation) with Resin Bonded Rockwool conforming to IS: 8183,density 48 kg/ m3, 50 mm thick, wrapped in 200 G Virgin Polythene bags fixed to ceiling with metallic cleats (50x50x3 mm) @ 60 cm and wire mesh of 12.5mm x 24 gauge wire mesh, for top most ceiling of building.	sqm	397.92
12.50	Providing and fixing thermal insulation with Resin bonded rock wool conforming to IS: 8183, density 48 kg/m3, 50 mm thick, wrapped in 200 G virgin Polythene bags placed over existing false ceiling and held in position by criss- crossing GI wire.	sqm	190.58
12.51	Providing and fixing thermal insulation with Resin Bonded rock wool conforming to IS: 8183, having density 48 kg/m3, 50 mm thick,wrapped in 200 G Virgin Polythene Bags fixed to wall with screws,rawl plug & washers and held and in position by criss crossing GI wire etc. complete as per directions of Engineer-in-Charge.	sqm	194.53

12.52	<p>Providing and applying two coats of High Albedo paint having minimum Solar Reflective Index (SRI) 108 (with solar reflectance &amp; thermal emittance tested as per ASTM) C 1549 and ASTM C 1371 respectively), VOC less than 10 cc/gm. The coating thickness and the methodology of application shall be strictly as per manufacturer's specifications and as approved by Engineer-In-Charge. Surface preparation includes cleaning with metal wire brush to remove all dust, fungus etc., washing with water all complete. The contractor shall give guarantee for the performance of SRI and also the durability of coating, all complete as per direction of Engineer-in-Charge.</p>	sqm	216.69
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<b>SUB HEAD : 13.0</b>			
<b>FINISHING</b>			
BASIC RATES (SH: 13.0 FINISHING)			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0101	Bhisti	day	714.00
0112	Carpenter 2nd class	day	714.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0117	Assistant Fitter or 2nd class Fitter	day	714.00
0122	Mason (for plaster of paris work) 1st class	day	784.00
0123	Mason (brick layer) 1st class	day	784.00
0131	Painter	day	714.00
0141	White Washer	day	714.00
0155	Mason (average)	day	749.00
0156	Carpenter (Average)	day	749.00
0324	Coal Tar	litre	30.00
0367	Portland Cement (OPC-43 grade)	tonne	5,000.00
0368	White Cement	tonne	11,200.00
0763	Glue	kilogram	75.00
0771	Kerosene oil	litre	50.00
0772	White Cement based Polymer modified self curing compound in powder form	kg	15.00
0775	Dehradun white lime	quintal	600.00
0776	Satna lime	quintal	370.00
0777	Dry hydrated lime (factory made)	quintal	290.00
0801	Silicon and acrylic emulsion	litre	120.00
0802	Acrylic distemper 1st quality , having VOC content less than 50 grams/ litre	Kg	40.00
0803	Acrylic emulsion, having VOC content less than 50 grams/ litre	litre	94.00
0804	Premium acrylic emulsion of interior grade, having VOC content less than 50 grams/ litre	litre	200.00
0805	Synthetic enamel paint, having VOC (Volatile Organic Compound) content less than 150 grams/ litre	litre	175.00
0806	Ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre	litre	105.00
0807	Ready mixed red oxide zinc chromatic on steel/ iron work, having VOC content less than 250 grams/ litre	litre	120.00
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 grams/ litre	litre	50.00
0809	Acrylic Exterior primer	kilogram	100.00
0815	Acrylic distemper 1st quality , having VOC content less than	kilogram	40.00
0816	Oil bound washable distemper/ Acrylic distemper	kilogram	40.00
0818	Linseed oil (double boiled)	litre	200.00
0820	Primer for cement paint	litre	90.00
0821	Distemper primer	litre	90.00

0823	Ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre	litre	105.00
0824	White cement based putty	kg	13.00
0826	Aluminium paint	litre	150.00
0827	Acid proof paint (chocolate or black)	litre	225.00
0828	Anticorrosive bituminous paint (black)	litre	100.00
0829	Black Japan paint	litre	90.00
0830	Enamel paint	litre	175.00
0831	Floor enamel paint in all shades except green	litre	165.00
0833	Synthetic enamel paint in black or chocolate shade	litre	175.00
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	165.00
0835	Premium Plastic emulsion paint	litre	200.00
0851	Water proofing cement paint	kilogram	38.00
0855	Wax polish (ready made)	kilogram	230.00
0856	Ordinary varnish	litre	100.00
0857	Superior copal varnish	litre	115.00
0858	Superior spar varnish	litre	115.00
0859	Oil type wood preservative	litre	130.00
0868	Premixed super white gypsum plaster	kg	6.00
0869	Plaster of Paris	kilogram	5.00
0982	Coarse sand (zone III)	cum	1,500.00
0999	Shellac	kilogram	300.00
1000	Spirit	litre	48.00
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	900.00
1198	Second class kail wood in planks	10 cudm	260.00
1213	Water proofing materials	kilogram	35.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	163.93
2203	Carriage of Coarse sand	cum	163.93
2209	Carriage of Cement	tonne	145.72
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1,200.00
4201	Aluminium primer	litre	120.00
4202	Red oxide Zinc chromate primer	litre	110.00
4203	Copper acetate	kilogram	300.00
4204	Hydrochloric acid	kilogram	35.00
4205	Copper chloride	kilogram	300.00
4206	Copper nitrate	kilogram	210.00
4207	Ammonium chloride	kilogram	22.00
7239	Epoxy paint	litre	215.00
7240	Fire retardant paint	litre	240.00
7306	Aluminium T or L sections	kilogram	190.00
8504	Multi surface paint	litre	300.00
8505	Acrylic exterior paint	litre	200.00
8506	Premium Acrylic exterior paint	litre	210.00
8507	Textured exterior paint	litre	280.00
8509	Special Primer (C.W.)	litre	160.00
8510	Metal Primer (U.G.)	litre	105.00
8733	Synthetic ployster triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of	kg	410.00

9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

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## 13.0 FINISHING

Note :- Rates for external plastic are for height upto 10m from ground level in less otherwise stated.

Code No	Description	Unit	Rate
CEMENT PLASTER (IN FINE SAND)			
13.1	12 mm cement plaster of mix :		
13.1.1	1:4 (1 cement: 4 fine sand)	sqm	206.40
13.1.2	1:6 (1 cement: 6 fine sand)	sqm	197.40
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)	sqm	237.79
13.2.2	1:6 (1 cement: 6 fine sand)	sqm	227.01
13.3	20 mm cement plaster of mix :		
13.3.1	1:4 (1 cement: 4 fine sand)	sqm	281.51
13.3.2	1:6 (1 cement: 6 fine sand)	sqm	267.47
CEMENT PLASTER (IN COARSE SAND)			
13.4	12 mm cement plaster of mix :		
13.4.1	1:4 (1 cement: 4 coarse sand)	sqm	215.08
13.4.2	1:6 (1 cement: 6 coarse sand)	sqm	206.05
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)	sqm	248.15
13.5.2	1:6 (1 cement: 6 coarse sand)	sqm	237.37
13.6	20 mm cement plaster of mix :		
13.6.1	1:4 (1 cement: 4 coarse sand)	sqm	294.98
13.6.2	1:6 (1 cement: 6 coarse sand)	sqm	280.95
CEMENT PLASTER WITH A FLOATING COAT OF NEAT CEMENT			
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)	sqm	261.91
13.7.2	1:4 (1 cement: 4 fine sand)	sqm	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)	sqm	295.05
13.8.2	1:4 (1 cement: 4 fine sand)	sqm	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	sqm	270.59
13.9.2	20 mm cement plaster	sqm	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.	sqm	305.41
CEMENT PLASTER IN TWO COATS			
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).	sqm	309.93

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.	sqm	323.30
13.13	12 mm cement plaster 1:2 (1 cement : 2 stone dust).	sqm	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.	sqm	263.66
13.15	20 mm cement plaster 1:2 (1 cement : 2 stone dust).	sqm	315.21
6 MM CEMENT PLASTER			
13.16	6 mm cement plaster of mix :		
13.16.1	1:3 (1 cement : 3 fine sand)	sqm	177.14
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.	sqm	233.94
13.18	Neat cement punning.	sqm	47.46
ROUGH CAST PLASTER			
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	sqm	526.68
PEBBLE DASH PLASTER			
13.20	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers	Per bag of 50 kg cement used in the mix	42.39
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.	sqm	50.96
13.22	Extra for plastering on circular work not exceeding 6 m in radius:		
13.22.1	In one coat	sqm	27.55
13.22.2	In two coats	sqm	41.83
13.23	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	sqm	150.01
INTERIOR FINISHING			
13.24	White washing with lime to give an even shade :		
13.24.1	New work (three or more coats)	sqm	22.72
13.25	Satna lime wash on walls with one coat.	sqm	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	sqm	30.98
13.26.2	New work (two or more coats) with a base coat of whiting	sqm	30.66

13.27	Distempering with dry distemper of approved brand and manufacture (two or more coats) of required shade on new work, over and including water thinnable priming coat to give an even shade.	sqm	113.79
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	sqm	113.79
13.29	Distempering with 1st quality acrylic distemper (ready mixed) of approved manufacturer, of required shade and colour complete, as per manufacturer's specification.	sqm	64.93
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	sqm	45.12
<b>EXTERIOR FINISHING</b>			
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)	sqm	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	sqm	171.50
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)	sqm	116.80
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)	sqm	113.65
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	sqm	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	sqm	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	sqm	98.04
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)	sqm	43.02
13.36.2	With ready mixed aluminium primer of approved brand and manufacture on resinous wood and plywood	sqm	44.07
13.36.3	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	sqm	38.85
13.36.4	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)	sqm	20.83
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	sqm	58.45
13.37.2	Two coats	sqm	92.86
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	sqm	141.19
13.38.2	On concrete work	sqm	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	New work (two or more coats) including a coat of approved steel primer but excluding a coat of mordant solution	sqm	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	sqm	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	sqm	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	metre	44.21
13.41.2	150 mm diameter pipes	metre	65.91
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	metre	48.30
13.42.2	150 mm diameter pipes	metre	71.93
13.43	Painting with oil type wood preservative of approved brand and manufacture :		

13.43.1	New work (two or more coats)	sqm	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.	sqm	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.	sqm	38.89
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	sqm	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	sqm	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	sqm	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	sqm	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	sqm	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	sqm	80.57
13.52	Varnishing with varnish of approved brand and manufacture :		
13.52.1	Two or more coats of glue sizing with copal varnish over an under coat of flatting varnish	sqm	138.18
13.52.2	Two or more coats glue sizing with spar varnish or an under coat of flatting varnish	sqm	138.74
13.53	French spirit polishing :		
13.53.1	Two or more coats on new works including a coat of wood filler	sqm	257.81
13.54	Polishing on wood work with ready mixed wax polish of approved brand and manufacture :		
13.54.1	New work	sqm	114.91
13.55	Floor polishing on masonry or concrete floors with wax polish of approved brand and manufacture.	sqm	55.72
13.56	Lettering with black Japan/ Synthetic enamel/ floor enamel/ enamel paint of approved brand and manufacture as directed by engineering incharge.	per letter per cm height	3.54

13.57	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).	sqm	689.82
13.58	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 :		
13.58.1	15 mm wide and 15 mm deep groove	metre	43.75
13.58.2	20 mm wide and 15 mm deep groove	metre	44.17
13.59	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.	sqm	98.60
13.60	Extra for washed stone grit plaster on circular work not exceeding 6 m in radius (in two coats).	sqm	77.60
13.61	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.	metre	62.09
13.62	Extra for using white cement in place of ordinary cement in the top layer of the item of washed stone grit plaster.	sqm	58.07
13.63	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.	sqm	254.42
13.64	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.	Per Bag of 50 Kg of cement	47.99

13.65	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.	sqm	86.70
13.66	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.		
16.66.1	One coat	sqm	38.33
16.66.2	Two coats	sqm	63.04
13.67	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.		
13.67.1	One coat	sqm	54.60
13.67.2	Two coats	Sqm	81.24
13.68	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.		
13.68.1	One coat	sqm	56.18
13.68.2	Two coats	Sqm	85.09
13.69	Painting with synthetic enamel paint, having VOC (Volatile Organic Compound) content less than 150 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.		
13.70.1	One coat	sqm	64.41
13.70.2	Two or more coats on new work	sqm	92.02
13.71	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound ) content.		
13.71.1	With ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre	sqm	43.02
13.71.2	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	sqm	38.85
13.71.3	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	sqm	45.12
13.72	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.	sqm	152.25

SUB HEAD : 14.0			
REPAIRS TO BUILDING			
BASIC RATES (SH: 14.0 REPAIRS TO BUILDING)			
Code	Description	Unit	Rate
No.			
0006	Hire charges of Spraying machine including electric charges	day	250.00
0011	Hire charges of Pump set of capacity 4000 litres/hour	day	700.00
0058	Air compressor	hour	200.00
0085	Using cost of Ultra Violet Radiation tube	Hour	190.00
0087	Hire Charges of Suction Jeting machine 2200 PSI machine including POL and operator	day	40,000.00
0100	Bandhani	day	714.00
0101	Bhisti	day	714.00
0102	Blacksmith 1st class	day	784.00
0103	Blacksmith 2nd class	day	714.00
0111	Carpenter 1st class	day	784.00
0112	Carpenter 2nd class	day	714.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0116	Fitter (grade 1)	day	784.00
0117	Assistant fitter or 2nd class fitter	day	714.00
0119	Glazier	day	714.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0126	Mason 1st class	day	784.00
0128	Mate	day	714.00
0129	Sewer man	day	645.00
0130	Mistry	day	784.00
0131	Painter	day	714.00
0138	Sprayer (for bitumen, tar etc.)	day	714.00
0139	Skilled Beldar (for floor rubbing etc.)	day	714.00
0141	White Washer	day	714.00
0155	Mason (average)	day	749.00
0156	Carpenter (average)	day	749.00
0160	Technician	day	853.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	1,400.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	1,350.00
0302	Safeda ballies 125 mm diameter	metre	40.00
0308	Bhusa	quintal	500.00
0367	Portland Cement (OPC-43 grade)	tonne	5,000.00
0389	Brass single acting spring hinges 150 mm	each	425.00
0390	Brass single acting spring hinges 125 mm	each	285.00
0391	Brass single acting spring hinges 100 mm	each	250.00
0392	Brass double acting spring hinges 150 mm	each	480.00
0393	Brass double acting spring hinges 125 mm	each	400.00
0394	Brass double acting spring hinges 100 mm	each	390.00
0404	Brass flush bolt 250 mm	each	150.00
0405	Brass flush bolt 150 mm	each	130.00



0406	Brass flush bolt 100 mm	each	90.00
0417	Brass 150 mm floor door stopper (0.357kg)	each	160.00
0418	Brass hard drawn hooks and eyes 300 mm	10 Nos	600.00
0419	Brass hard drawn hooks and eyes 250 mm	10 Nos	574.00
0420	Brass hard drawn hooks and eyes 200 mm	10 Nos	510.00
0421	Brass hard drawn hooks and eyes 150 mm	10 Nos	400.00
0422	Brass hard drawn hooks and eyes 100 mm	10 Nos	345.00
0423	Brass casement window fastener	each	45.00
0427	Brass quadrant stays 300 mm	each	110.00
0428	Brass fanlight catch	10 Nos	170.00
0429	Brass fanlight pivot	10 Nos	168.00
0430	Brass chain with hook for fan light catch	each	36.00
0442	Brass helical spring 150 mm	each	290.00
0444	Brass curtain rod 20 mm dia 1.25 mm thick	metre	140.00
0445	Brass curtain rod 25 mm dia 1.25 mm thick	metre	190.00
0446	Brass brackets (curtain rods) 20 mm	each	45.00
0449	Brass screws 50 mm	100 Nos	220.00
0450	Brass screws 40 mm	100 Nos	170.00
0452	Brass screws 25 mm	100 Nos	100.00
0524	Chromium plated Brass butt hinges (heavy) type 75x65x4 mm weighing not less than 200gms	10 Nos	905.00
0525	Chromium plated Brass butt hinges (light/ordinary) type 125x70x4mm	10 Nos	805.00
0526	Chromium plated Brass butt hinges (light/ordinary) type 100x 70x4 mm	10 Nos	690.00
0527	Chromium plated Brass butt hinges (light/ordinary) type 75x 40x2.5 mm	10 Nos	421.00
0528	Chromium plated Brass butt hinges (light/ordinary) type 50x 40x2.5 mm	10 Nos	180.00
0585	Chromium plated Brass screws 50 mm	100 Nos	300.00
0586	Chromium plated Brass screws 40 mm	100 Nos	290.00
0587	Chromium plated Brass screws 30 mm	100 Nos	240.00
0589	Chromium plated Brass screws 20 mm	100 Nos	160.00
0595	Bright finished or black enameled mild steel butt hinges 100x 58x1.90 mm	10 Nos	80.00
0597	Bright finished or black enameled mild steel butt hinges 50x 37x1.50 mm	10 Nos	49.00
0608	Nickel plated bright finished mild steel piano hinges 1 mm thick 25 mm wide	metre	39.00
0637	Bright finished or black enameled mild steel screws 40 mm	100 Nos	60.00
0639	Bright finished or black enameled mild steel screws 25 mm	100 Nos	40.00
0640	Bright finished or black enameled mild steel screws 20 mm	100 Nos	35.00
0772	White cement based polymer modified self curing compound in powder form	kg	15.00
0775	Dehradun white lime	quintal	600.00
0811	Mud (dry)	cum	165.00

0815	Acrylic distemper 1st quality , having VOC content less than 50 grams/ litre	kilogram	40.00
0816	Oil bound washable distemper/ Acrylic distemper	kilogram	40.00
0826	Aluminium paint	litre	150.00
0827	Acid proof paint (chocolate or black)	litre	225.00
0828	Anticorrosive bituminous paint (black)	litre	100.00
0829	Black Japan paint	litre	90.00
0833	Synthetic enamel paint in black or chocolate shade	litre	175.00
0835	Plastic emulsion paint	litre	200.00
0845	Roofing paint for iron sheets in red colour	litre	120.00
0851	Water proofing cement paint	kilogram	38.00
0855	Wax polish (ready made)	kilogram	230.00
0856	Ordinary varnish	litre	100.00
0857	Superior copal varnish	litre	115.00
0858	Superior spar varnish	litre	115.00
0859	Oil type wood preservative	litre	130.00
0863	Putty for wood work	kilogram	28.00
0982	Coarse sand (zone III)	cum	1,500.00
0999	Shellac	kilogram	300.00
1000	Spirit	litre	48.00
1003	Mild steel round bar above 12 mm dia	quintal	4,750.00
1007	Structural steel such as tees, angles channels and R.S. joists	quintal	4,950.00
1008	Flats up to 10 mm in thickness	quintal	4,850.00
1023	Galvanised steel J or L hooks 8 mm dia	10 Nos	120.00
1034	Bolts and nuts up to 300 mm in length	quintal	5,200.00
1174	Red sand stone slab 45 mm to 50 mm thick (un-dressed)	sqm	260.00
1186	Superior class teak wood such as Dandeli, Balarshah or Malabar in planks	10 cudm	1,100.00
1188	First class teak wood in planks	10 cudm	850.00
1189	Second class teak wood in scantling	10 cudm	776.00
1190	Second class teak wood in planks	10 cudm	791.00
1194	Second class deodar wood in planks	10 cudm	500.00
1196	First class kail wood in planks	10 cudm	300.00
1199	Sal wood in scantling	10 cudm	600.00
1208	Bitumen washer	100 Nos	30.00
1209	G.I. plain washer thick	100 Nos	35.00
1213	Water proofing materials	kilogram	35.00
1215	Welding by electric plant	cm	2.00
1301	Bleaching powder	quintal	1,800.00
1314	C.P.brass chain with 32 mm dia rubber plug	each	40.00
1315	C.P.brass chain with 40 mm dia rubber plug	each	40.00
1880	Dismanteled P or S trap scrap (approx wt 2kg)	kg	25.00
1890	Centrifugally SCI(spun) S & S P or S trap	each	325.00
1953	Vitreous china Indian type W.C. pan of size 580 mm	each	475.00
1954	Vitreous china orrisa type W.C. pan of size 580 mm	each	1,290.00
1970	Vitreous china foot rests 250x125x25 mm	pair	103.00
2201	Carriage of Bricks	1000 Nos	437.15
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	163.93

2203	Carriage of Coarse sand	cum	163.93
2204	Carriage of Timber	cum	187.35
2205	Carriage of Steel	tonne	145.72
2209	Carriage of Cement	tonne	145.72
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	145.72
2264	Carriage of Rubbish	cum	163.93
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10 kg/sqm)	sqm	309.00
2407	Float glass sheet of nominal thickness 5.5 mm (weight not less than 13.50 kg/sqm)	sqm	515.00
2466	Hollock wood in scantling	10 cudm	357.00
2467	Chromium plated Brass pull bolt lock (locking bolt) of size 85 mm x 42 mm with screws, bolts, nuts and washers complete	each	172.00
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5	1000 Nos	4,590.00
4009	Mild steel tubes hot finished welded type	kilogram	60.00
4202	Red oxide Zinc chromate primer	litre	120.00
7019	Dash fastener / Chemical fastener	each	12.50
7241	Melamine polish	litre	300.00
7346	Double coupler	each	46.00
7387	Spigot for standard jointing	kilogram	40.00
7397	Base Jack	each	145.00
7398	Challies	each	765.00
7399	Cup locks	each	48.00
7442	Wheel 75 mm dia. 40 mm wide	each	62.00
7752	PVC slotted pipe 200 mm dia as per IS: 12818	metre	810.00
8500	Water for jetting / blowback	1000 litre	1,500.00
8505	Acrylic exterior paint	litre	200.00
8506	Premium Acrylic exterior paint	litre	210.00
8507	Textured exterior paint	litre	280.00
8508	Primer for cement paint	litre	90.00
9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

14.0 REPAIRS TO BUILDING			
Code No	Description	Unit	Rate
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 directions of Engineer-In-Charge.		
14.1.1	With cement mortar 1:4 (1 cement : 4 fine sand)	sqm	323.61
14.1.2	With cement mortar 1:4 (1cement: 4 coarse sand)	sqm	334.60
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 directions of Engineer-In-Charge.		
14.2.1	Door chowkhats	each	1,053.71
14.2.2	Window chowkhats	each	663.64
14.2.3	Clerestory window chowkhats	each	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.	each	133.18
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 directions of Engineer-In-Charge.		
14.4.1	For door/ window/ clerestory window	sqm	732.45
14.5	Renewing glass panes, with putty and nails wherever necessary including racking out the old putty:		
14.5.1	Float glass panes of thickness 4 mm	sqm	659.37
14.5.2	Float glass panes of thickness 5.5 mm	sqm	871.61
14.6	Renewing glass panes, with wooden fillets wherever necessary:		
14.6.1	Float glass panes of thickness 4 mm	sqm	945.81
14.6.2	Float glass panes of thickness 5.5 mm	sqm	1,158.01
14.7	Renewing glass panes and refixing existing wooden fillets:		
14.7.1	Float glass panes of thickness 4 mm	sqm	738.64

14.7.2	Float glass panes of thickness 5.5 mm	sqm	950.85
14.8	Supplying and fixing new wooden fillets wherever necessary:		
14.8.1	2nd class teak wood fillets	metre	46.24
14.8.2	Hollock wood fillets	metre	41.55
14.9	Renewal of old putty of glass panes (length)	metre	32.48
14.10	Refixing old glass panes with putty and nails	sqm	422.14
14.11	Fixing old glass panes with wooden fillets (excluding cost of fillets)	sqm	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.	each	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 directions of Engineer-In-Charge.	sqm	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	sqm	80.29
14.14.2	With modular brick tiles	sqm	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.	kg	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.	metre	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.	kg	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	per wheel	105.25
14.18.2	Wheel above 50 mm dia	per wheel	177.10
EARTH WORK			
14.19	Pumping out water caused by springs, tidal or river seepage, broken water mains or drains and the like.	kilo litre	133.28
14.20	Mud mortar made with local clay good earth.	cum	576.21
BRICK WORK			
14.21	Brick work with common burnt clay bricks of class designation 7.5 in mud mortar	cum	3,990.39
WOOD WORK			

14.22	Providing and fixing 25 mm thick shutters for cup board etc. :		
14.22.1	Panelled or panelled & glazed shutters :		
14.22.1.1	Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	sqm	3,208.52
14.22.1.2	Ist class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	sqm	2,785.76
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.	sqm	3,188.71
14.22.2.2	Ist class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	sqm	2,733.43
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	sqm	2,909.03
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.	metre	206.64
14.24.2	25 mm diameter.	metre	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.	kg	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	cum	63,802.59
14.26.2	Hollock wood	cum	40,589.08
14.27	Providing and fixing bright finished brass single acting spring hinges with necessary brass screws etc. complete :		
14.27.1	150 mm	each	456.68
14.27.2	125 mm	each	325.57
14.27.3	100 mm	each	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	each	508.20
14.28.2	125 mm	each	433.27
14.28.3	100 mm	each	420.18
14.29	Providing and fixing bright finished brass flush bolts with necessary brass screws etc. complete :		
14.29.1	250 mm	each	161.53
14.29.2	150 mm	each	140.39
14.29.3	100 mm	each	102.94

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	each	163.17
14.31	Providing and fixing bright finished brass hard drawn hooks and eyes :		
14.31.1	300 mm	each	60.80
14.31.2	250 mm	each	58.35
14.31.3	200 mm	each	52.36
14.31.4	150 mm	each	42.04
14.31.5	100 mm	each	36.89
14.32	Providing and fixing bright finished brass fan light pivot with necessary brass screws etc. complete.	each	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.	each	44.98
14.34	Providing and fixing bright finished brass quadrant stay 300 mm long with necessary brass screws etc. complete.	each	114.28
14.35	Providing and fixing bright finished brass helical door spring (superior quality).	each	323.93
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)	each	120.54
14.36.2	100x70x4 mm (ordinary type)	each	103.39
14.36.3	75x65x4 mm (heavy type)	each	114.94
14.36.4	75x40x2.5 mm (ordinary type)	each	69.58
14.36.5	50x40x2.5 mm (ordinary type)	each	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.	each	179.06
FINISHING			
14.38	White washing with lime to give an even shade :		
14.38.1	Old work (two or more coats)	sqm	13.30
14.38.2	Old work (one or more coats)	sqm	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	sqm	11.45
14.40	Distemping with dry distemper of approved brand and manufacture (one or more coats) and of required shade on old work to give an even shade.	sqm	39.76
14.41	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.	sqm	14.60
14.42	Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :		
14.42.1	Old work (one or more coats)	sqm	54.04

14.43	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 :		
14.43.1	75 mm diameter pipes	metre	33.15
14.44	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 :		
14.44.1	75 mm diameter pipes	metre	15.58
14.44.2	100 mm diameter pipes	metre	20.58
14.44.3	150 mm diameter pipes	metre	29.65
14.45	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 :		
14.45.1	75 mm diameter pipes	metre	34.27
14.45.2	100 mm diameter pipes	metre	47.39
14.45.3	150 mm diameter pipes	metre	70.60
14.46	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 :		
14.46.1	75 mm diameter pipes	metre	16.45
14.46.2	100 mm diameter pipes	metre	21.14
14.46.3	150 mm diameter pipes	metre	30.42
14.47	Painting with oil type wood preservative of approved brand and manufacture:		
14.47.1	Old work (one or more coats)	sqm	25.06
14.48	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade:		
14.48.1	One or more coats on old work	sqm	63.60
14.49	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :		
14.49.1	One or more coats on old work	sqm	60.59
14.50	Painting with aluminium paint of approved brand and manufacture to give an even shade:		
14.50.1	One or more coats on old work	sqm	55.58
14.51	Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade :		
14.51.1	One or more coats on old work	sqm	63.88
14.52	Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade :		
14.52.1	One or more coats on old work	sqm	53.94
14.53	French spirit polishing :		
14.53.1	One or more coats on old work	sqm	129.78



14.54	Polishing on wood work with ready made wax polish of approved brand and manufacture :		
14.54.1	Old work	sqm	58.07
14.55	Re-lettering with black Japan paint of approved brand and manufacture.	Per letter per cm height	2.24
14.56	Painting (one or more coats) with black Japan paint of approved brand and manufacture to give an even shade.	sqm	55.02
14.57	Providing and fixing C.P. brass chain and rubber plug complete for sink or wash basin:		
14.57.1	32 mm dia	each	53.48
14.57.2	40 mm dia	each	53.48
14.58	Distemping with 1st quality acrylic washable distemper (ready made) of approved manufacturer and of required shade and colour complete. as per manufacturer's specification.		
14.58.1	One or more coats on old work	sqm	35.42
14.59	Finishing walls with water proofing cement paint of required shade :		
14.59.1	Old work (one or more coats applied @ 2.20 kg/10 sqm) over priming coat of primer applied @ 0.80 ltrs/10 sqm complete including cost of Priming coat.	sqm	65.91
14.59.2	Old work (one or more coats @ 2.20 kg/10 sqm)	sqm	44.28
14.60	Finishing walls with textured exterior paint of required shade :		
14.60.1	Old work (Two or more coats on existing cement paint surface applied @ 3.28 ltr/10 sqm.	sqm	133.98
14.60.2	Old work (One or more coats) applied @ 1.82 ltr/10 sqm.	sqm	83.20
14.61	Finishing walls with Acrylic Smooth exterior paint of required shade:		
14.61.1	Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface	sqm	78.12
14.61.2	Old work (One or more coat applied @ 0.90 ltr/10 sqm).	sqm	52.33
14.62	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade		
14.62.1	Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface	sqm	76.02
14.62.2	Old work (one or more coats applied @ 0.83 ltr/10 sqm).	sqm	51.87
14.63	Varnishing with varnish of approved brand and manufacture:		
14.63.1	One or more coats with copal varnish	sqm	55.62
14.63.2	One or more coats with spar varnish	sqm	55.90
14.64	Melamine polishing on wood work (one or more coat).	sqm	82.85
14.65	Varnishing with flatting varnish of approved brand and manufacture one or more coats on old work.	sqm	58.07

14.66	<p>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 &amp; vertical tubes joining with cup &amp; lock system with M.S. tubes, M.S. tube chollies, 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.</p> <p><b>Note</b> : - This item to be used for maintenance work judiciously, necessary deduction for scaffolding in the existing item to be done.</p>	sqm	199.50
14.67	Providing and fixing bright finished brass casement window fasteners or peg stays to windows/ ventilators with necessary welding and machine screws etc. complete.	kg	339.01
14.68	Providing and fixing 14 mm bright finished brass spring catch to steel centre hung ventilators with necessary welding and machine screws etc. complete.	each	41.58
14.69	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.	sqm	378.25
ROUTINE MAINTENANCE WORK			
14.69A	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)	litre	0.28

14.70	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.	each	62.62
14.71	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 dia for all depth.	metre	200.13
14.72	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:-	sqm	49.91
(i)	Tank shall be emptied of water by pumping & bottom shall be cleaned of slit 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.		
(iv)	The treated surface shall be dried using air jetting and all loose particles shall be removal from the surface.		
(v)	Finally the surface shall be treated with ultraviolet radiation etc. as per direction of Engineer-in-Charge.		
14.73	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.	each	250.29
14.74	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.		
14.74.1	Long pattern W.C Pan of size 580x440 mm	each	2,073.96
14.74.2	Orissa pattern W.C Pan of size 580x440 mm	each	2,695.46
14.75	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.	each	170.17
14.76	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in- Charge.	each	77.49
14.77	Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.	sqm	2.00

14.78	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	metre	2.00
14.79	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.	each	228.17

SUB HEAD : 15.0			
DISMANTLING AND DEMOLISHING			
BASIC RATES (SH:15.0 DISMANTLING AND DEMOLISHING)			
Code No.	Description	Unit	Rate
0038	Tractor with ripper attachment	day	1,200.00
0039	Tractor with trolley	day	1,200.00
0040	Air compressor 250 cfm with two leads for pneumatic cutters / hammers	day	1,600.00
0041	Joint cutting machine with 2-3 blades	day	800.00
0100	Bandhani	day	714.00
0101	Bhisti	day	714.00
0103	Blacksmith 2nd class	day	714.00
0112	Carpenter 2nd class	day	714.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0116	Fitter (grade 1)	day	784.00
0117	Assistant Fitter or 2nd class Fitter	day	714.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0128	Mate	day	714.00
0130	Mistry	day	784.00
0139	Skilled Beldar (for floor rubbing etc.)	day	714.00
0761	Fuel wood	quintal	500.00
0771	Kerosene oil	litre	50.00
2264	Carriage of Rubbish	cum	163.93
9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

<b>15.0 DISMANTLING AND DEMOLISHING</b>			
<b>Code No</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
15.1	Demolishing lime concrete manually/ by mechanical means and disposal of material within 50 metres lead as per direction of Engineer-in-charge.	cum	491.37
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)	cum	1,404.97
15.2.2	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	cum	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.	cum	2,049.67
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.	cum	1,833.62
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.	sqm	662.97
15.6	Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work.	kg	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	cum	406.81
15.7.2	In lime mortar with old mughal bricks	cum	1,029.00
15.7.3	In lime mortar	cum	491.37
15.7.4	In cement mortar	cum	1,188.92
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	1000 nos	2,687.41
15.8.2	From brick work in lime mortar	1000 nos	3,089.91
15.8.3	From brick work in cement mortar	1000 nos	3,865.58
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	cum	668.36
15.9.2	In cement mortar	cum	1,418.97
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	cum	276.12

15.10.2	In cement mortar	cum	397.71
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	each	211.89
15.11.2	Of area beyond 3 sq. metres	each	290.19
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	each	82.81
15.12.2	Of area beyond 3 sq. metres	each	109.03
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	cum	2,572.15
15.13.2	Of sectional area below 40 square centimetres	metre	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	Cum per metre span	341.57
15.14.2	Of sectional area below 40 square centimetres	Metre per metre span	0.95
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	Cum per metre height	495.81
15.15.2	Of sectional area below 40 square centimetres	Metre per metre height	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	kg	1.96
15.16.2	Channels, angles, tees and flats	kg	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.	kg	3.26
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.	kg	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	Kg per metre span	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.	Kg per metre height	0.49

15.21	Extra for marking of structural steel work required to be re-erected.	kg	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	sqm	42.35
15.22.2	For thickness of tiles above 25 mm and up to 40 mm	sqm	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	sqm	95.20
15.23.2	Asbestos sheet	sqm	44.63
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.	each	8.26
15.25	Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50 metres lead.	kg	21.25
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	sqm	35.25
15.26.2	Thickness above 10 mm up to 25 mm	sqm	44.91
15.26.3	Thickness above 25 mm up to 40 mm	sqm	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	sqm	167.06
15.27.2	Thickness above 40 mm up to 75 mm	sqm	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.	sqm	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	metre	43.68
15.29.2	100 mm dia pipe	metre	45.01
15.29.3	150 mm dia pipe	metre	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	sqm	125.76
15.30.2	bituminous road	sqm	247.56
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	metre	86.87
15.31.2	Above 40 mm nominal bore	metre	93.98
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	metre	238.49
15.32.2	Above 150 mm dia up to 300 mm dia	metre	313.71
15.32.3	Above 300 mm diameter	metre	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	metre	402.40
15.33.2	Above 600 mm diameter	metre	1,013.32
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	metre	191.66
15.34.2	Above 150 mm diameter	metre	232.58
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.	each	403.38
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.	each	235.38
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.	each	2,672.53
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.	each	554.16

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.	each	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	each	185.26
15.40.2	Above 150 mm diameter	each	683.62
15.41	Dismantling of spindle fire hydrant including stacking of useful materials within 50 metres lead.	each	418.64
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)	each	637.11
15.42.2	210 x 120 cm (outside to outside)	each	977.20
15.42.3	320 x 120 cm (outside to outside)	each	1,383.24
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.	sqm	31.54
15.44	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	sqm	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.	cum	1,629.99
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.	cum	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.	cum	153.55

<b>SUB HEAD : 16.0</b>			
<b>ROAD WORK</b>			
BASIC RATES (SH: 16.0 ROAD WORK)			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0001	Hire charges of Coal tar Boiler 900 to 1400 litres	day	800.00
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	day	800.00
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	3,000.00
0004	Production cost of concrete by batch mix plant	cum	400.00
0007	Hire charges of Coal tar Sprayer	day	350.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	210.00
0012	Vibrator (Needle type 40 mm)	day	350.00
0013	Machine for rubbing of floors	day	300.00
0014	Front end loader capacity 1.00 cum	day	6,000.00
0016	Mastic cooker	day	750.00
0017	Hire and running charges of tipper	day	3,750.00
0021	Pin vibrator (SHP) with 50 cum. output per day	day	250.00
0022	Surface Vibrator with 25 cum. output per day	day	300.00
0023	Hot Bitumen Mixer 0.5 cum i/c hand cart	day	3,500.00
0029	Carriage of concrete by transit mixer	km/cum	37.30
0030	Generator 250 KVA	day	3,000.00
0033	Paint applicator.	day	800.00
0038	Tractor with ripper attachment	day	1,200.00
0043	Road sweeper	day	550.00
0050	Motor Grader 3.35 metre blade	hour	2,400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	1,300.00
0053	Tipper -5 Cum	tonne km	3.30
0054	Vibratory roller 8 to 10 tonne	hour	600.00
0055	Smooth Wheeled Roller 8 to 10 tonne	hour	300.00
0056	Tandem Road Roller	hour	1,200.00
0057	Water Tanker 5 to 6 KL capacity	hour	200.00
0058	Air compressor	hour	200.00
0059	Wet Mix Plant 60 TPH	hour	950.00
0061	Emulsion Pressure Distributor @ 1750 sqm per hour	hour	700.00
0062	Hot mix Plant -120 TPH capacity	hour	15,000.00
0063	Hot mix Plant 100 TPH Capacity	hour	13,000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	1,500.00
0065	Paver finisher Mechanical 100 TPH	hour	800.00
0066	Batching and Mixing Plant @ 75 cum per hour	hour	2,400.00
0069	Generator 250 KVA	hour	400.00
0070	Generator 100 KVA/125 KVA	hour	300.00
0075	Road sweeper (Mechanical Broom) @ 1250 sqm per hour	hour	450.00
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	12,000.00
0083	Hire charges of TATA 407 or equivalent for local shifting.	day	1,400.00
0100	Bandhani	day	714.00

0101	Bhisti	day	714.00
0102	Blacksmith 1st class	day	784.00
0103	Blacksmith 2nd class	day	714.00
0113	Chowkidar	day	645.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0116	Fitter (grade 1)	day	784.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	784.00
0125	Mason (for plain stone work) 2nd class	day	714.00
0126	Mason (for ornamental stone work) 1st class	day	784.00
0128	Mate	day	714.00
0130	Mistry	day	784.00
0131	Painter	day	714.00
0138	Sprayer (for bitumen, tar etc.)	day	714.00
0139	Skilled Beldar (for floor rubbing etc.)	day	714.00
0155	Mason (average)	day	749.00
0157	Operator (Pile/ Special machine)	day	784.00
0286	Brick Aggregate (Single size) : 50 mm nominal size	cum	650.00
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	650.00
0291	Stone Aggregate (Single size) : 63 mm nominal size	cum	1,000.00
0292	Stone Aggregate (Single size) : 50 mm nominal size	cum	1,000.00
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	1,300.00
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	1,350.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	1,400.00
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	1,350.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	1,350.00
0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	1,400.00
0304	Bajri	cum	1,000.00
0309	Paving bitumen of grade VG-10 of approved quality	tonne	25,614.00
0310	Bitumen emulsion	tonne	30,800.00
0312	Bitumen grade PMB - 40	tonne	32,950.00
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	34,790.00
0314	Bitumen hot sealing compound : grade A	kilogram	29.00
0316	Bitumen solution primer of approved quality	litre	47.00
0317	Premoulded joint filler 12 mm thick	sqm	360.00
0364	Wire brush	each	20.00
0365	Soft brush	each	20.00
0367	Portland Cement (OPC-43 grade)	tonne	5,000.00
0370	Coal (steam)	quintal	440.00
0588	Chromium plated Brass screws 25 mm	100 Nos	180.00
0773	Unslaked lime	quintal	300.00
0777	Dry hydrated lime (factory made)	quintal	290.00
0784	Marble dust/ powder	cum	1,130.00
0810	Moorum	cum	500.00
0979	Royalty for good earth	cum	40.00
0982	Coarse sand	cum	1,500.00
0983	Fine sand	cum	900.00
1007	Structurals such as tees,angles channels and R.S. joists	quintal	4,950.00

1008	Flats upto 10 mm in thickness	quintal	4,850.00
1013	Mild steel sheets for tanks	quintal	4,850.00
1021	Hard drawn steel wire fabric size 75 X 25 mm mesh of weight not less than 7.75 kg/sq.m	sqm	430.00
1028	Straining bolts	each	80.00
1029	Galvanised steel barbed wire of weight 9.8kg/100m	quintal	5,500.00
1030	Galvanised steel turn buckles	each	25.00
1151	Boundry stone top chisel dressed 15x15x90 cm	each	80.00
1158	Stone for pitching 15 cm x 22.5 cm	cum	600.00
1159	Stone dust	cum	1,100.00
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	900.00
1215	Welding by electric plant	cm	2.00
1241	Commercial LPG in cylinder	kg	84.00
1980	Fly ash	cum	11.00
2200	Carriage of Steam coal	tonne	187.35
2201	Carriage of Bricks	1000 Nos	437.15
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	163.93
2203	Carriage of Coarse sand	cum	163.93
2205	Carriage of Steel	tonne	145.72
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	178.19
2208	Carriage of Lime	cum	163.93
2209	Carriage of Cement	tonne	145.72
2211	Carriage of Tar / Bitumen	tonne	163.93
2215	Carriage of Soling stone & masonry stone	cum	192.86
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	145.72
2241	Carriage of Good earth	cum	204.92
2260	Carriage of Brick aggregate	cum	178.19
2261	Carriage of Fine sand	cum	163.93
2265	Carriage of Moorum	cum	163.93
2266	Carriage of Surkhi	cum	163.93
2267	Carriage of Stone dust	cum	163.93
2302	Carriage of G.I. sheet and accessories	tonne	145.72
2311	Carriage of Red bajri	cum	163.93
2314	Carriage of Barbed wire	tonne	145.72
2335	Carriage of sand	cum	163.93
2342	Carriage of Solvent / Diesel.	quintal	16.39
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5	1000 Nos	4,590.00
2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	240.00
2901	Stone Aggregate (Single size): 100 mm nominal size	cum	1,360.00
2902	Stone Aggregate (Single size): 80 mm nominal size	cum	1,360.00
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	1,400.00
2904	Stone chippings/ screenings 150 micron nominal size	cum	1,400.00
2908	Over burnt (Jhama) Brick Aggregate: 120 mm to 40 mm size	cum	550.00
2909	Over burnt (Jhama) Brick Aggregate: 90 mm to 40 mm size	cum	600.00
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1,200.00

2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1,200.00
2914	Solvent	kilogram	30.00
2916	Paving Asphalt VG 10 of approved quality	tonne	24,500.00
6501	Sand	cum	1,300.00
7254	Hardening compound	litre	36.00
7255	Road marking paint (spirit based)	litre	115.00
7256	Superior quality road marking paint (water based)	litre	130.00
7280	Waste plastic additive	tonne	38,100.00
7295	Granite of any colour, 18 mm thick (slab area upto 0.50 sqm)	sqm	1,800.00
7296	Granite of any colour, 30 mm thick (slab area upto 0.50 sqm)	sqm	1,900.00
7309	Paving Asphalt of grade VG-30 of approved quality	tonne	38,150.00
7318	Plasticizer / super plasticizer	kilogram	29.00
7382	Bitumen emulsion rapid setting (R.S.) confirming to IS : 8887	tonne	18,250.00
7426	Cat's eye	each	80.00
7739	Modified Bitumen Refinery produced CRMB - 55	tonne	28,000.00
7741	Modified Bitumen Refinery produced CRMB - 60	tonne	29,150.00
7742	Bitumen emulsion medium setting (M.S.) confirming to IS : 8887	tonne	27,100.00
7753	Boulder 50 mm to 200 mm	cum	810.00
7773	Coloured inter locking C.C. paver Block (60mm thick, M-35)	sqm	425.00
7774	Granite Stone size 10x10x7.50cm	each	9.00
7893	Tactile tile	sqm	800.00
7895	Matt finished vitrified tile 100x100 x16 mm	sqm	910.00
7896	Vitrified tile	sqm	450.00
8576	Crates made of Mesh type 10x12 (D=100 mm) Zn coated. (Mesh wire diameter 3.00 mm).	sqm	200.00
8577	Crates made of Mesh type 10x12 (D=100 mm) Zn+PVC coated. Mesh wire diameter 2.70/3.70 mm (ID/OD).	sqm	250.00
8578	Crates made of Mesh type 10x12 (D=100 mm) Zn+10% Al alloy + PVC coated. Mesh wire diameter 2.70/3.70 mm (ID/OD).	sqm	290.00
8685	Delineator	each	336.00
8686	Precast C.C. Kerb stone M - 25	cum	5,600.00
8687	Thermoplastic paint	kg	66.00
8688	Glass beads	kg	72.00
8689	Interlocking C.C. paver block ( 60 mm thick, M-30)	sqm	440.00
8690	High intensity retro - reflective sheet	sqm	1,443.00
8691	Punched tape concertina coil 600 mm dia 10 m openable length (Total length 90 m)	bundle	600.00
8692	RBT reinforced barbed wire	metre	7.00
8693	Turn buckle and strengthening bolt	each set	42.00
8694	Precast pavement slab 450 x 450 x 50 mm (M - 30)	each	145.00
8695	Chain link fabric fencing mesh of size 50x50 mm made of G.I. wire of dia 4 mm	sqm	300.00
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	330.00

8697	Chain link fabric fencing mesh of size 25x25 mm made of G.I. wire of dia 3 mm	sqm	380.00
8785	Interlocking C.C. paver block ( 80 mm thick, M-30)	sqm	485.00
9977	Carriage	L.S.	2.12
9999	Sundries	L.S.	2.12

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16.0 ROAD WORK			
Code No	Description	Unit	Rate
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 earth with lead upto 50 metres.	sqm	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).	cum	14.39
16.3	Supplying and stacking at site.		
16.3.1	90 mm to 45 mm size stone aggregate	cum	1,356.32
16.3.2	63 mm to 45 mm size stone aggregate	cum	1,137.15
16.3.3	53 mm to 22.4 mm size stone aggregate	cum	1,286.08
16.3.4	Stone screening 13.2 mm nominal size (Type A)	cum	1,305.50
16.3.5	Stone screening 11.2 mm nominal size (Type B)	cum	1,445.99
16.3.6	Red bajri	cum	1,090.08
16.3.7	Good earth	cum	437.19
16.3.8	Moorum	cum	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, screening / binding material to fill up	cum	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	sqm	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	metre	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	metre	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.	sqm	19.29



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	sqm	133.04
16.10	Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete.	sqm	575.37
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	sqm	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	cum	2,910.50
16.12.2	Water bound macadam	cum	1,814.47
16.13	Cutting bajri paths and making good the same including supply of extra quantities of brick aggregate, moorum and red bajri required.	sqm	170.00
FENCING			
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 coarse sand : 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).	cum	20,022.10
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).	kg	52.12
16.15	Supplying and fixing turn buckles and straining bolts for barbed wire fencing.	each set	170.63
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	metre	8.72

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	metre	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.	kg	69.97
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).	Sqm	38.50
ROAD SIGNS			
16.20	Engraving letters in hard stone	per cm height per letter	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).	each	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).	each	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	each	1,749.58
16.23.2	50x152.5x25 cm size	each	3,183.01
16.23.3	35x93.5x18 cm size	each	1,169.42
SURFACE DRESSING			
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	sqm	124.71
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	Sqm	173.60
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.	sqm	96.50
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 :		
16.27.1	Using bitumen emulsion (minimum 50% bitumen content- RS grade conforming to IS : 8887)	sqm	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)	sqm	75.22
PREMIX CARPET			

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	sqm	31.64
16.29.2	On bituminous surface @ 0.50 Kg / sqm	sqm	25.62
16.30	Providing and applying tack coat using bitumen emulsion conforming to IS: 8887, using emulsion pressure distributor 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	sqm	8.12
16.30.1.2	On bituminous surface @ 0.25kg/sqm	sqm	5.53
16.30.2	With medium setting bitumen emulsion		
16.30.2.1	On W.B.M / W.M.M. @ 0.4kg/sqm	sqm	11.45
16.30.2.2	On bituminous surface @ 0.25kg/sqm	sqm	7.60
Note - Use of Item No. 16.81.1 shall be restricted only per site at sub zero temperature or for			
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	sqm	132.48
16.31.2	With paving Asphalt grade VG - 30 with no solvent	sqm	148.05
16.31.3	With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53	sqm	137.20
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	sqm	158.90
16.32.2	With paving Asphalt grade VG - 30 with no solvent	sqm	178.36
16.32.3	With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53	sqm	164.82

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.	sqm	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 .	sqm	143.68
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.	sqm	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	sqm	428.09
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	sqm	508.87
16.36.2	40 mm thick	sqm	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	sqm	199.50
16.37.2	With paving Asphalt grade VG - 30	sqm	232.23
16.37.3	With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53	sqm	209.41
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	sqm	299.43
16.38.2	With paving asphalt grade VG - 30 with no solvent	sqm	351.19
16.38.3	With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53	sqm	315.14
SEAL COAT			
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.	sqm	55.90
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.	sqm	74.27
Note: Seal coat items to be operated only with the prior approval of chief Engineer concerned.			
CONCRETE PAVEMENTS			

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	cum	5,179.44
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	cum	6,645.03
16.42.2	Cement concrete manufactured in automatic batching plant (RMC plant) i/c transportation to site in transit mixer	cum	7,004.66
16.43	Extra for providing and mixing hardening compound of approved quality as per manufacturer's specification in cement concrete.	litre	33.71
16.44	Providing and fixing in position pre-moulded joint filler in expansion joints.	per cm depth per cm width per m length	3.29
16.45	Providing and laying in position bitumen hot sealing compound for expansion joints etc.		
16.45.1	Using grade 'A' sealing compound.	per cm depth per cm width per m length	5.25
PAINTING AREA / RUNWAY MARKING			
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)	sqm	110.95
16.46.2	Old work (One or more coats)	sqm	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 the surface of all dirt, scales, oil, grease and foreign material etc. complete.		
16.47.1	New work (Two or more coats)	sqm	167.97
16.47.2	Old work (One or more coats)	sqm	110.32
MISCELLANEOUS			
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.	each	1,898.54
16.49	Providing and fixing Glow studs of size 100x20 mm made of heavy duty body shall be moulded ASA (Acrylic styrene Acryloretite ) 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.	each	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	cum	925.37
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.	cum	8,427.20



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 2.4 m 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)	metre	212.56
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 specifcatlons and directions of		
16.53.1	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.	tonne	7,009.31
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.	tonne	6,951.67
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 specifcatons 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.	tonne	5,429.48
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.	tonne	5,374.67

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 equipped 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.	tonne	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.	tonne	173.15
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 equipped 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.	tonne	7,609.53
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.	tonne	7,979.44
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.	tonne	6,978.44
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.	tonne	6,517.28

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.	tonne	7,550.69
16.56.6	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in drum Type Hot Mix Plant of 60-90	tonne	7,920.61
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	tonne	6,919.61
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.	tonne	6,458.45
16.57	Manufacturing, supplying and fixing retro reflective sign boards made up of 2 mm thick aluminium sheet, face to		
16.57.1	Mandatory/ Regulatory sign boards of 900 mm diametre with support length of 3750 mm	each	4,022.17
16.57.2	Cautionary /warning sign boards of equilateral triangular shape having each side of 900 mm with support length of 3650 mm	each	2,946.44
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		
16.58.1	Overhead informatory road signage	sqm	3,926.69

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	each	4,397.12
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.	sqm	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.	sqm	370.86
16.62	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.	sqm	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.	each	546.98
16.64	Excavating holes upto 0.10 cum, including getting out the excavated soil, then returning the soil as deposited 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	each	20.97
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.	sqm	959.84
16.66	Providing and laying 60mm thick factory 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.	sqm	665.70
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	cum	6,029.49
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		
16.68.1	Made of G.I. wire of dia 4 mm	sqm	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	sqm	631.16
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.	sqm	680.33
16.70	Supplying and stacking of hard stone (for stone pitching) 22.5 cm thick at site.	cum	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).	sqm	380.00

16.72	75 mm thick back filling for pitching including supplying of required materials and consolidation etc. complete with :		
16.72.1	Moorum	sqm	57.40
16.72.2	Stone aggregate 20 mm nominal size	sqm	123.10
16.72.3	Stone aggregate 40 mm nominal size	sqm	117.08
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	cum	5,794.29
16.74	Deduct for using of M-20 grade concrete instead of M-25 grade concrete in C.C. pavement.	cum	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).	sqm	4.10
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	cum	1,860.67
16.76.2	With material conforming to Grade-II (size range 53 mm to 0.075 mm ) having CBR Value-25	cum	1,942.96
16.76.3	With material conforming to Grade-III (size range 26.5 mm to 0.075 mm ) having CBR Value-20	cum	1,829.07
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 achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.	cum.	1,962.56

16.77.1	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 achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.(with	cum.	1,570.04
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.	cum	2,891.39
16.79	Providing and erecting 2.00 metre high temporary barricading at site 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).	metre	1,979.18
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.	metre	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.	sqm	76.06
16.82	Laying old cement concrete 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).	sqm	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)	metre	63.60
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 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.	sqm	2,881.06
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 area less than 0.50 sqm.	sqm	2,979.41



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 (1 cement : 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.	sqm	1,306.34
16.87	Providing and laying matt finished vitrified tile of size 300x300x9.8mm having water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in 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.	sqm	875.53
16.88	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having water absorption less than 0.5% and conforming to IS: 15622, of approved make in all colours and shades in 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	sqm	1,203.30
16.89	Providing and laying factory made chamfered edge Cement Concrete paver blocks In foot path, park & lawns driveway 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 course 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, all complete as per manufacturer's specifications &		
16.89.1	60mm thick Cement concrete paver block of M-35 grade with approved colour, design & pattern.	sqm	652.65
16.89.2	80mm thick Cement concrete paver block of M-30 grade with approved colour, design & pattern.	sqm	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.	sqm	1,310.26

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.	sqm	1,832.01

<b>SUB HEAD : 17.0</b>			
<b>SANITARY INSTALLATIONS</b>			
BASIC RATES (17.0 SANITARY INSTALLATIONS)			
<b>Code No</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0100	Bandhani	day	714.00
0101	Bhisti	day	714.00
0103	Blacksmith 2nd class	day	714.00
0112	Carpenter 2nd class	day	714.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0116	Fitter (grade 1)	day	784.00
0117	Assistant Fitter or 2nd class Fitter	day	714.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0128	Mate	day	714.00
0131	Painter	day	714.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	1,400.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	1,350.00
0367	Portland Cement (OPC-43 grade)	tonne	5,000.00
0586	Chromium plated Brass screws 40 mm	100 Nos	290.00
0588	Chromium plated Brass screws 25 mm	100 Nos	180.00
0828	Anticorrosive bituminous paint (black)	litre	100.00
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	165.00
0982	Coarse sand	cum	1,500.00
1007	Structural steel such as tees, angles channels and R.S. joists	quintal	4,950.00
1309	C.I. bracket for wash basin and sinks	pair	88.00
1313	8 mm dia C.P. Brass/ S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate for European type W.C.	each	200.00
1315	C.P.brass chain with 40 mm dia rubber plug	each	40.00
1330	Clamps and M.S. stays including bolts and nuts for 100 mm pipe	each	67.50
1331	M.S. Holder bat clamp of approved design for 100 mm S.C.I. pipe	each	30.00
1332	M.S. Holder bat clamp of approved design for 75 mm S.C.I. pipe	each	27.00
1334	Clamps and M.S. stays including bolts and nuts for 50 mm pipe	each	35.00
1335	Clamps and M.S. stays including bolts and nuts for 75 mm pipe	each	37.00
1350	Mosquito proof coupling of approved design	each	30.00
1363	Vitreous china foot rests 250x130x30 mm	pair	100.00
1369	S.C.I. gully or nahani grating 100 mm dia	each	25.00
1373	Rubber insertions for 80 mm dia pipe joints	each	16.00
1374	Rubber insertions for 100 mm dia pipe joints	each	18.00
1392	Mirror of superior make glass 60x45 cm	each	450.00
1396	Vitreous china pedestal for wash basin	each	950.00

1397	Pig lead	kilogram	210.00
1532	Flush pipe with union spreaders and clamps all in C.P. brass for single stall	each	310.00
1533	Flush pipe with union spreaders and clamps all in C.P. brass for double stall	each	425.00
1534	Flush pipe with union spreaders and clamps all in C.P. brass for range of three stall	each	525.00
1535	Flush pipe with union spreaders and clamps all in C.P. brass for range of four stall	each	610.00
1540	Flush pipe and spreaders G.I. for single set of one squatting plate urinal	each	190.00
1541	Flush pipe and spreaders G.I. for range of two squatting plates urinal	each	275.00
1542	Flush pipe and spreaders G.I. for range of three squatting plates urinal	each	310.00
1543	Flush pipe and spreaders G.I. for range of four squatting plates urinal	each	450.00
1614	G.I. inlet connection	each	70.00
1616	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 75 mm dia	each	1,050.00
1617	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100 mm dia	each	1,135.00
1620	S.C.I. plain bend 75 mm dia	each	210.00
1621	S.C.I. plain bend 100 mm dia	each	280.00
1624	S.C.I. bend with access door 75 mm dia	each	290.00
1625	S.C.I. bend with access door 100 mm dia	each	350.00
1627	S.C.I. plain single equal junctions 75x75x75 mm dia	each	315.00
1628	S.C.I. plain single equal junctions 100x100x100 mm dia	each	405.00
1630	S.C.I. single equal junctions 75x75x75 mm dia with access door	each	390.00
1631	S.C.I. single equal junctions 100x100x100 mm dia with access door	each	455.00
1633	S.C.I. plain double equal junctions 75x75x75x75 mm dia	each	410.00
1634	S.C.I. plain double equal junctions 100x100x100x100 mm dia	each	615.00
1636	S.C.I. double equal junctions 75x75x75x75 mm dia with access door	each	525.00
1637	S.C.I. double equal junctions 100x100x100x100 mm dia with access door	each	730.00
1639	Slotted cowl (terminal guard) 75 mm dia	each	215.00
1640	Slotted cowl (terminal guard) 100 mm dia	each	265.00
1653	Sand cast iron S&S plain single unequal junctions: 100x100x 75 mm dia	each	525.00
1656	Sand cast iron S&S single unequal junctions: 100x100x75 mm dia with access door	each	575.00
1659	Sand cast iron S&S plain double unequal junctions: 100x100x75x 75 mm dia	each	625.00
1662	Sand cast iron S&S double unequal junctions: 100x100x75x75 mm dia with access door	each	725.00
1666	Sand cast iron heel rest bend 75 mm dia	each	300.00

1667	Sand cast iron heel rest bend 100 mm dia	each	355.00
1669	S.C.I. single equal invert branch of required degree 75x75x75 mm dia	each	350.00
1670	S.C.I. single equal invert branch of required degree 100x100x100 mm dia	each	435.00
1672	S.C.I. double equal invert branch of required degree 75x75x75x75 mm dia	each	425.00
1673	S.C.I. double equal invert branch of required degree 100x100x100x100 mm dia	each	550.00
1674	S.C.I. single unequal invert branch of required degree 100x100x75 mm dia	each	500.00
1677	S.C.I. double unequal invert branch of required degree 100x100x75x75 mm dia	each	600.00
1682	S.C.I. door pieces 75 mm dia	each	285.00
1683	S.C.I. door pieces 100 mm dia	each	485.00
1685	S.C.I. collar 75 mm dia	each	180.00
1686	S.C.I. collar 100 mm dia	each	270.00
1863	Fire clay kitchen sink: 600x450x250 mm	each	1,300.00
1871	White vitreous china laboratory sink 450x300x150 mm	each	1,500.00
1872	White vitreous china laboratory sink 600x450x200 mm	each	2,500.00
1875	White plastic seat (solid) with lid C.P. brass hinges and rubber buffers	each	410.00
1876	Black plastic seat (solid) with lid C.P. brass hinges and rubber buffers	each	325.00
1881	Spun yarn	kilogram	55.00
1885	15 mm C.P. brass tap	each	270.00
1889	C.P. brass toilet paper holder of standard size	each	280.00
1891	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P. brass: 50 mm dia	each	190.00
1893	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P. brass: 80 mm dia	each	225.00
1895	C.P. brass trap 40 mm dia	each	315.00
1896	100 mm S.C.I. trap with vent heel	each	325.00
1897	100 mm S.C.I. trap with 100 mm inlet and 100 mm outlet	each	300.00
1898	100 mm S.C.I. trap with 100 mm inlet and 75 mm outlet	each	220.00
1913	Vitreous china lipped front urinal	each	470.00
1915	Vitreous china squatting plate urinal	each	1,053.00
1947	Vitreous china flat back wash basin 630x450 mm	each	725.00
1949	Vitreous china angle back wash basin 600x480 mm	each	725.00
1950	Vitreous china angle back wash basin 400x400 mm	each	425.00
1951	C.P. brass waste 32 mm	each	85.00
1952	C.P. brass waste 40 mm	each	100.00
1953	Vitreous china Indian type W.C. pan size 580 mm	each	475.00
1954	Vitreous china orrisa type W.C. pan size 580 mm	each	1,290.00
1955	Vitreous china pedestal type water closet	each	1,025.00
1965	White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as squatting pan or European type water closet as per manufacturer's specifications	each	2,500.00

1966	Floor mounted white vitreous china double trap syphonic WC with 10 litre cistern and all fittings & fixtures, seat cover etc	each	9,800.00
1970	Vitreous china foot rests 250x125x25 mm	pair	103.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	163.93
2203	Carriage of Coarse sand	cum	163.93
2205	Carriage of Steel	tonne	145.72
2209	Carriage of Cement	tonne	145.72
3213	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1,100.00
3228	600x120 mm glass shelf with anodised aluminium angle frame, C.P. brass brackets and guard rail of standard size	each	300.00
3229	Vitreous china flat back wash basin 550x400 mm	each	350.00
3617	C.P. Brass union 40mm dia	each	210.00
3620	C.C.I. (spun) socketed soil, waste and vent pipe 1.80 metres long: 100 mm dia	each	1,170.00
3621	C.C.I. (spun) socketed soil, waste and vent pipe 1.80 metres long: 75 mm dia	each	1,150.00
3624	S.C.I. S&S bends with access door 100 mm dia	each	400.00
3625	S.C.I. S&S bends with access door 75 mm dia	each	300.00
3628	S.C.I. S&S bend 100 mm dia	each	300.00
3629	S.C.I. S&S bend 75 mm dia	each	200.00
3634	S.C.I. S&S heel rest sanitary bend 100 mm dia	each	300.00
3635	S.C.I. S&S heel rest sanitary bend 75 mm dia	each	280.00
3640	S.C.I. S&S single equal junctions 100x100x100 mm	each	500.00
3641	S.C.I. S&S single equal junctions 75x75x75 mm	each	350.00
3644	S.C.I. S&S single equal junctions with access door 100x100x 100 mm	each	500.00
3645	S.C.I. S&S single equal junctions with access door 75x75x75 mm	each	390.00
3650	S.C.I. S&S double equal junctions 100x100x100x100 mm	each	630.00
3651	S.C.I. S&S double equal junctions 75x75x75x75 mm	each	470.00
3654	S.C.I. S&S double equal junctions with access door 100x100x100x100 mm	each	630.00
3655	S.C.I. S&S double equal junctions with access door 75x75x75x75 mm	each	500.00
3660	S.C.I. S&S single unequal junctions 100x100x75 mm	each	600.00
3664	S.C.I. S&S single unequal junctions with access door 100x100x75 mm	each	650.00
3670	S.C.I. S&S double unequal junctions 100x100x75x75 mm	each	800.00
3674	S.C.I. S&S double unequal junctions with access door 100x100x75x75 mm	each	900.00
3681	S.C.I. S&S single equal invert branch of required degree 100x100x100 mm dia	each	430.00
3682	S.C.I. S&S single equal invert branch of required degree 75x75x75 mm dia	each	330.00
3685	S.C.I. S&S double equal invert branch of required degree 100x100x100x100 mm dia	each	540.00

3686	S.C.I. S&S double equal invert branch of required degree 75x75x75x75 mm dia	each	450.00
3690	S.C.I. S&S single unequal invert branch of required degree 100x100x75 mm dia	each	550.00
3695	S.C.I. S&S double unequal invert branch of required degree 100x100x75x75 mm dia	each	730.00
3699	S.C.I. S&S, 75 mm offset for 75 mm dia pipe	each	230.00
3707	S.C.I. S&S, 150 mm offset for 75 mm dia pipe	each	300.00
3708	S.C.I. S&S, 150 mm offset for 100 mm dia pipe	each	400.00
3712	S.C.I. S&S, 114 mm offset for 75 mm dia pipe	each	310.00
3713	S.C.I. S&S, 114 mm offset for 100 mm dia pipe	each	390.00
3716	S.C.I. S&S, 152 mm offset for 75 mm dia pipe	each	360.00
3717	S.C.I. S&S, 152 mm offset for 100 mm dia pipe	each	460.00
3728	S.C.I. S&S door pieces 100 mm dia	each	410.00
3729	S.C.I. S&S door pieces 75 mm dia	each	300.00
3733	S.C.I. S&S, Slotted Cowl (Terminal Guard) 100 mm	each	300.00
3734	S.C.I. S&S, Slotted Cowl (Terminal Guard) 75 mm	each	210.00
3738	S.C.I. S&S, collars 100 mm	each	300.00
3739	S.C.I. S&S, collars 75 mm	each	180.00
3746	S.C.I. S&S, 75 mm offset for 75 mm dia pipe	each	220.00
3747	S.C.I. S&S, 75 mm offset for 100 mm dia pipe	each	360.00
3749	Vitreous china toilet paper holder of standard size	each	110.00
4202	Red oxide Zinc chromate primer	litre	120.00
7004	Vitreous china flat back wash basin 450x300 mm	each	280.00
7005	Vitreous china 10 litres low level cistern without fittings	each	700.00
7006	Vitreous china 10 litres low level cistern with fittings	each	1,200.00
7048	Rawl plug 50 mm (designation 10 nos)	each	22.00
7072	Wall mounted water closet of size 780x370x690 mm	each	5,500.00
7073	Adjustable Vitreous China Cistern with fittings of flushing capacity 3litre/6 litre (adjustable to 4 litre/8 litre )	each	1,600.00
7074	White Vitreous China Waterless Urinal of size 600 x 330x315 mm	each	9,000.00
7075	Cistern with fittings for Waterless Urinal	each	2,200.00
7076	Battery based infrared sensor operated White Vitreous Urinal of approx size 610 x 390 x 370 mm	each	4,500.00
7095	Stainless steel kitchen sink - with drain board bowl depth 250 mm	each	3,000.00
7096	Stainless steel kitchen sink - with drain board 510 x 1040 mm bowl depth 225 mm	each	3,500.00
7097	Stainless steel kitchen sink - with drain board 510 x 1040 mm bowl depth 200 mm	each	3,200.00
7098	Stainless steel kitchen sink - with drain board 510x1040 mm bowl depth 178 mm	each	3,000.00
7101	Stainless steel kitchen sink - without drain board 610x510 mm bowl depth 200 mm	each	2,200.00
7102	Stainless steel kitchen sink - without drain board 610x460 mm bowl depth 200 mm	each	1,500.00
7103	Stainless steel kitchen sink - without drain board 470x420 mm bowl depth 178 mm	each	1,200.00

7104	Coloured Orissa pattern W.C. pan 580x440 mm	each	1,600.00
7105	Coloured Pedestal type W.C. pan 580x440 mm (European type)	each	850.00
7106	Coloured Vitreous china 10 lit. low level cistern	each	1,000.00
7107	Coloured (other than black) solid P.V.C. seat in European W.C. pan	each	350.00
7112	Circular shape 450 mm dia Mirror with Plastic moulded frame	each	400.00
7113	Rectangular shape 453x357 mm Mirror with Plastic moulded frame	each	290.00
7114	Oval shape 450x350 mm (outer dimensions) Mirror with Plastic moulded frame	each	290.00
7115	Rectangular shape 1500x450 mm Mirror with Plastic moulded frame	each	670.00
7116	Hard board 6 mm thick	sqm	115.00
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	each	25.00
7118	Semi Rigid PVC waste pipe for sink and wash basin 40 mm dia with length not less than 700 mm i/c PVC waste	each	33.00
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	35.00
7120	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	35.00
7121	Bottle Trap	each	620.00
7122	CP Brass Single lever telephonic wall mixer of approved make of aproved make	each	4,500.00
7123	Coloured High density polyethylene / poly propylene 10 lit. (full flush) capacity controlled low level flushing cistern with fittings	each	550.00
7126	White Vitreous china 10 litre (full flush) capacity controlled low level flushing cistern with all fittings	each	700.00
7127	Coloured Vitreous china 10 litre (full flush) capacity controlled low level flushing cistern with all fittings	each	1,150.00
7358	Flushing Cistern P.V.C. 10 litre capacity (low level) (White) (with fittings, accessories and flush pipe)	each	575.00
7359	P.V.C. automatic flushing cistern 5 litre capacity	each	450.00
7361	P.V.C. automatic flushing cistern 10 litre capacity	each	500.00
7363	15 mm C.P. brass tap with elbow operation lever	each	430.00
7364	White glazed fire clay draining board 600x450x25 mm	each	500.00
7375	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Single lipped urinal	each	445.00
7376	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of two lipped urinals	each	765.00
7377	G.i. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of three lipped urinals	each	1,050.00
7378	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of four lipped urinals	each	1,430.00



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	865.00
7406	PTMT pillar cock	each	115.00
7491	PTMT - Waste Coupling 31/32 mm	each	34.00
7492	PTMT - Waste Coupling 38/40 mm	each	39.00
7493	PTMT - Bottle Trap 31/32 mm	each	200.00
7494	PTMT - Bottle Trap 38/40 mm	each	200.00
7503	PTMT Liquid Soap Container of 400 ml capacity	each	95.00
7504	PTMT - Towel Ring 215x200x37 mm	each	110.00
7505	PTMT - Towel Rail (450 mm)	each	125.00
7506	PTMT - Towel Rail (600 mm)	each	145.00
7507	PTMT Shelf 450x124x36 mm	each	150.00
7508	PTMT - Urinal Spreader 15 mm	each	55.00
7621	Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 100 mm dia (3000 mm length pipe)	metre	700.00
7622	Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 75 mm dia (3000 mm length pipe)	metre	570.00
7623	Hubless centrifugally cast (spun) iron plain bend as per IS 15905 - 100 mm dia	each	230.00
7624	Hubless centrifugally cast (spun) iron plain bend as per IS 15905 - 75 mm dia	each	160.00
7625	Hubless centrifugally cast (spun) iron double equal plain junction as per IS 15905 - 100x100x100x100 mm dia	each	510.00
7626	Hubless centrifugally cast (spun) iron double equal plain junction as per IS 15905 - 75x75x75x75 mm dia	each	275.00
7627	Hubless centrifugally cast (spun) iron single equal plain junction as per IS 15905 - 100x100x100 mm dia	each	400.00
7628	Hubless centrifugally cast (spun) iron single equal plain junction as per IS 15905 - 75x75x75 mm dia	each	215.00
7629	Hubless centrifugally cast (spun) iron double unequal plain junction as per IS 15905 - 100x100x75x75 mm dia	each	400.00
7630	Hubless centrifugally cast (spun) iron single unequal plain junction as per IS 15905 - 100x100x75 mm dia	each	375.00
7631	Hubless centrifugally cast (spun) iron double equal plain invert branch as per IS 15905 - 100x100x100x100 mm dia	each	625.00
7632	Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 100x100x100 mm dia	each	300.00
7633	Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 75x75x75 mm dia	each	260.00
7634	Hubless centrifugally cast (spun) iron single unequal plain invert branch 45 degree as per IS 15905 - 100x100x75 mm dia	each	430.00
7636	Hubless centrifugally cast (spun) iron 65 mm offset with 75 mm dia pipe as per IS 15905	each	360.00
7637	Hubless centrifugally cast (spun) iron 130 mm offset with 100 mm dia pipe as per IS 15905	each	295.00
7638	Hubless centrifugally cast (spun) iron 130 mm offset with 75 mm dia pipe as per IS 15905	each	440.00

7735	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 1000 mm dia	metre	12,300.00
7736	Extruded burnt flyash clay sewer bricks conforming to I.S 4885	1000 Nos	4,860.00
7737	Fly ash bricks conforming to I.S. 12894	1000 Nos	3,950.00
7738	Calcium Silicate Bricks machine moulded conforming to I.S. 4139	1000 Nos	19,000.00
7639	Hubless centrifugally cast (spun) iron bend with access door - 100 mm dia as per IS 15905	each	365.00
7640	Hubless centrifugally cast (spun) iron bend with access door - 75 mm dia as per IS 15905	each	290.00
7641	Hubless centrifugally cast (spun) iron terminal guard (slotted cowl) - 100 mm dia as per IS 15905	each	270.00
7642	Hubless centrifugally cast (spun) iron trap with 100 mm inlet and 100 mm outlet as per IS 15905	each	540.00
7643	Hubless centrifugally cast (spun) iron trap with 100 mm inlet and 75 mm outlet as per IS 15905	each	385.00
7644	SS 304 grade shielded coupling with EPDM rubber gasket for 100 mm dia Hubless centrifugally cast (spun) iron	each	275.00
7645	SS 304 grade shielded coupling with EPDM rubber gasket for 75 mm dia Hubless centrifugally cast (spun) iron	each	250.00
7805	Salem Stainless steel AISI - 304 (18/8) Orrisa pattern W.C. pan 724 mm X 578 mm	each	4,500.00
7806	Salem Stainless steel AISI - 304 (18/8) Round basin 405mm X 355 mm	each	1,500.00
7807	Salem Stainless steel AISI - 304 (18/8) Wash basin 530mm X 345 mm	each	2,000.00
7808	Centrifugally cast (spun) iron S&S 100 mm inlet and 100 mm outlet	each	450.00
7809	Centrifugally cast (spun) iron S&S 100 mm inlet and 75 mm outlet	each	500.00
7858	P.T.M.T. Urinal cock 15 mm dia	each	95.00
9007	C.P. Brass Centre Hole Basin Mixer With Cast Spout (Kigston/Marc/Prima/ Parko/ Hindware)	each	1,600.00
9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

<b>17.0 SANITARY INSTALLATIONS</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
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 rests	each	4,046.95
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	each	7,053.31
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	each	3,878.39
17.2.2	W.C. pan with ISI marked black solid plastic seat and lid	each	3,798.76
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	each	4,858.91
17.3.2	W.C. pan with ISI marked black solid plastic seat and lid	each	4,779.29
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	each	3,688.20
17.4.2	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	each	5,680.89
17.4.3	Range of three urinal basins with 10litre white P.V.C. automatic flushing cistern	each	7,879.48
17.4.4	Range of four urinal basins with 10 litre white P.V.C. automatic flushing cistern	each	10,895.05

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	each	7,089.81
17.5.2	Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern	each	10,580.78
17.5.3	Range of three half stall urinals with 10 litre P.V.C. automatic flushing cistern	each	12,982.52
17.5.4	Range of four half stall urinals with 10 litre P.V.C. automatic flushing cistern	each	15,316.67
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	each	5,426.82
17.6.2	Range of two squatting plates with 5 litre P.V.C. automatic flushing cistern	each	7,896.77
17.6.3	Range of three squatting plates with 10 litre P.V.C. automatic flushing cistern	each	10,372.15
17.6.4	Range of four squatting plates with 10 litre P.V.C. automatic flushing cistern	each	12,449.05
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	each	1,592.50
17.7.2	White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap	each	1,339.63
17.7.3	White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps	each	1,428.60
17.7.4	White Vitreous China Flat back wash basin size 550x 400 mm with single 15 mm C.P. brass pillar tap	each	1,175.72
17.7.5	White Vitreous China Angle back wash basin size 600 x 480 mm with single 15 mm C.P. brass pillar tap	each	1,339.63
17.7.6	White Vitreous China Angle back wash basin size 400 x 400 mm with single 15 mm C.P. brass pillar tap	each	1,058.65

17.7.7	White Vitreous China Flat back wash basin size 450x 300 mm with single 15 mm C.P. brass pillar tap	each	922.85
17.7.8	White Vitreous China Surgeon type wash basin of size 660x460 mm with a pair of 15 mm C.P. brass pillar taps with elbow including operated levers	each	2,243.40
17.7.9	White Vitreous China Surgeon type wash basin of size 660x460 mm with single 15 mm C.P. brass pillar taps with elbow operated levers ISI marked	each	1,840.69
17.7.10	Stainless Steel AISI-304(18/8) Round basin 405x355 mm with single 15 mm C.P. brass pillar tap	each	2,065.46
17.7.11	Stainless Steel AISI-304(18/8) Wash basin 530x345 mm		
	with single 15 mm C.P. brass pillar tap	each	2,533.72
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 mixer	each	2,421.34
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.	each	982.80
17.8	Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings.	each	1,050.04
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	each	2,312.07
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		
17.10.1.1	510x1040 mm bowl depth 250 mm	each	4,205.92
17.10.1.2	510x1040 mm bowl depth 225 mm	each	4,674.18
17.10.1.3	510x1040 mm bowl depth 200 mm	each	4,393.20
17.10.1.4	510x1040 mm bowl depth 178 mm	each	4,205.92
17.10.2	Kitchen sink without drain board		
17.10.2.1	610x510 mm bowl depth 200 mm	each	2,992.08
17.10.2.2	610x460 mm bowl depth 200 mm	each	2,336.50
17.10.2.3	470x420 mm bowl depth 178 mm	each	2,055.52

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	each	2,991.07
17.11.2	Size 600x450x200 mm	each	3,927.60
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	each	946.16
17.13	Providing and fixing white vitreous china water closet squatting pan (Indian type) :		
17.13.1	Long pattern W.C. pan of size 580 mm	each	1,167.46
17.13.2	Orissa pattern W.C. pan of size 580x440 mm	each	1,930.74
17.14	Extra for using coloured W.C. pan instead of white W.C. pan :		
17.14.1	Orissa pattern W.C. pan 580x440 mm	each	290.33
17.15	Providing and fixing white vitreous china pedestal type (European type/ wash down type) water closet pan.	each	1,682.56
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.	each	117.08
17.16A	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to European type W.C. of quality and make as approved by Engineer - in -charge.	each	209.55
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	pair	153.72
17.17.2	250x125x25 mm	pair	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	each	716.14
17.18.2	10 litre capacity - coloured	each	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	each	1,351.60
17.19.2	10 litre (full flush) capacity-coloured	each	1,773.07
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	each	410.59
17.20.2	Black solid plastic seat with lid	each	330.96
17.20.3	Coloured (other than black & white) solid plastic seat with lid	each	354.38

17.22	Providing and fixing G.I. inlet connection for flush pipe connecting with W.C. pan.	each	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.	each	620.38
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	each	4,283.41
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.	each	967.61
17.24	Providing and fixing white vitreous china squatting plate urinal with integral rim longitudinal flush pipe.	each	2,372.55
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	each	804.72
17.25.2	Flat back wash basin of size 550x400 mm	each	640.82
17.25.3	Angle back wash basin of size 600x480 mm	each	804.72
17.25.4	Angle back wash basin of size 400x400 mm	each	523.74
17.25.5	Flat back wash basin of size 450x300 mm	each	387.94
17.25.6	Surgeon type wash basin of size 660x460 mm	each	1,155.91
17.26	Providing and fixing kitchen sink including making all connections excluding cost of fittings.		
17.26.1	White glazed fire clay sink of size 600x450x250 mm	each	1,319.22
17.27	Providing and fixing white vitreous china laboratory sink including making all connections excluding cost of fittings :		
17.27.1	Size 450x300x150 mm	each	1,506.54
17.27.2	Size 600x450x200 mm	each	2,443.11
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	each	63.67
17.28.1.2	40 mm dia	each	71.16
17.28.2	Flexible pipe		
17.28.2.1	32 mm dia	each	73.05
17.28.2.2	40 mm dia	each	31.68
17.29	Providing and fixing 100 mm sand cast Iron grating for gully trap.	each	31.68
17.30	Providing and fixing in position 25 mm diameter mosquito proof coupling of approved municipal design.	each	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.	each	987.81

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	each	874.02
17.32.2	Rectangular shape 453x357 mm	each	811.27
17.32.3	Oval shape 450x350 mm (outer dimensions)	each	810.18
17.32.4	Rectangular shape 1500x450 mm	each	1,272.04
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.	each	659.51
17.34	Providing and fixing toilet paper holder :		
17.34.1	C.P. brass	each	476.56
17.34.2	Vitreous china	each	324.10
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	metre	712.64
17.35.1.2	Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989	metre	754.18
17.35.1.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	metre	742.88
17.35.2	75 mm diameter :		
17.35.2.1	Sand cast iron S&S pipe as per IS: 1729	metre	652.09
17.35.2.2	Centrifugally cast (spun) iron socketed pipe as per IS: 3989	metre	729.47
17.35.2.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	metre	607.29
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	each	97.09
17.36.2	100 mm dia pipe	each	114.42
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	each	215.92
17.37.2	For 75 mm dia pipe	each	213.12
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	each	371.49
17.38.1.2	Sand cast iron S&S as per IS - 3989	each	418.32
17.38.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	385.56



17.38.2	75 mm dia		
17.38.2.1	Sand cast iron S&S as per IS - 1729	each	308.00
17.38.2.2	Sand cast iron S&S as per IS- 3989	each	317.38
17.38.2.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	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	each	289.07
17.39.1.2	Sand cast iron S&S as per IS : 3989	each	307.83
17.39.1.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	each	242.24
17.39.2	75 mm dia		
17.39.2.1	Sand cast iron S&S as per IS -1729	each	218.09
17.39.2.2	Sand cast iron S&S as per IS - 3989	each	208.74
17.39.2.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	each	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	each	359.31
17.40.1.2	Sand cast iron S&S as per IS - 3989	each	307.83
17.40.2	75 mm dia		
17.40.2.1	Sand cast iron S&S as per IS - 1729	each	283.68
17.40.2.2	Sand cast iron S&S as per IS - 3989	each	283.50
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	each	727.13
17.41.1.2	Sand cast iron S&S as per IS - 3989	each	633.47
17.41.2	75x75x75x75 mm		
17.41.2.1	Sand cast iron S&S as per IS - 1729	each	528.12
17.41.2.2	Sand cast iron S&S as per IS - 3989	each	504.70
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	each	602.84
17.42.1.2	Sand cast iron S&S as per IS - 3989	each	616.88
17.42.1.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	each	504.49
17.42.2	75x75x75x75 mm		
17.42.2.1	Sand cast iron S&S as per IS - 1729	each	405.41
17.42.2.2	Sand cast iron S&S as per IS - 3989	each	461.62
17.42.2.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	each	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	each	469.84
17.43.1.2	Sand cast iron S&S as per IS - 3989	each	511.98
17.43.2	75x75x75 mm		
17.43.2.1	Sand cast iron S&S as per IS - 1729	each	401.66
17.43.2.2	Sand cast iron S&S as per IS - 3989	each	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	each	406.14
17.44.1.2	Sand cast iron S&S as per IS - 3989	each	495.11
17.44.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	401.45
17.44.2	75x75x75 mm		
17.44.2.1	Sand cast iron S&S as per IS - 1729	each	316.44
17.44.2.2	Sand cast iron S&S as per IS - 3989	each	349.23
17.44.2.3	Hubless centrifugally cast (spun) Iron epoxy coated inside & outside as per IS:15905	each	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	each	722.72
17.45.1.2	Sand cast iron S&S as per IS - 3989	each	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	each	612.19
17.46.1.2	Sand cast iron S&S as per IS - 3989	each	776.09
17.46.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	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	each	582.23
17.47.1.2	Sand cast iron S&S as per IS - 3989	each	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	each	518.53
17.48.1.2	Sand cast iron S&S as per IS - 3989	each	588.77
17.48.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	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	each	541.94
17.49.1.2	Sand cast iron S&S as per IS 3989	each	532.60

17.49.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	612.19
17.49.2	75x75x75x75 mm		
17.49.2.1	Sand cast iron S&S as per IS - 1729	each	419.48
17.49.2.2	Sand cast iron S&S as per IS - 3989	each	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	each	434.25
17.50.1.2	Sand cast iron S&S as per IS - 3989	each	429.56
17.50.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	392.11
17.50.2	75x75x75 mm		
17.50.2.1	Sand cast iron S&S as per IS - 1729	each	349.23
17.50.2.2	Sand cast iron S&S as per IS - 3989	each	330.47
17.50.2.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	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	each	588.77
17.51.1.2	Sand cast iron S&S as per IS - 3989	each	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	each	495.11
17.52.1.2	Sand cast iron S&S as per IS - 3989	each	541.94
17.52.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	429.56
17.53	Providing and fixing sand cast iron S&S off sets as per IS: 1729		
17.53.1	76 mm off sets		
17.53.1.1	With 75 mm dia pipe	each	227.47
17.53.1.2	With 100 mm dia pipe	each	358.58
17.53.2	114 mm off sets		
17.53.2.1	With 75 mm dia pipe	each	317.17
17.53.2.2	With 100 mm dia pipe	each	392.11
17.53.3	152 mm off sets		
17.53.3.1	With 75 mm dia pipe	each	372.79
17.53.3.2	With 100 mm dia pipe	each	466.45
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	each	358.58
17.53A.1.2	With 75 mm dia pipe	each	297.71
17.54	Providing and fixing sand cast iron S&S off sets as per IS: 3989 :		
17.54.1	75 mm off sets		
17.54.1.1	With 75 mm dia pipe	each	236.85
17.54.2	150 mm off sets		

17.54.2.1	With 75 mm dia pipe	each	312.97
17.54.2.2	With 100 mm dia pipe	each	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	each	438.94
17.54A.1.2	With 75 mm dia	each	311.75
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	each	497.95
17.55.1.2	Sand cast iron S&S as per IS - 3989	each	427.70
17.55.2	75 mm		
17.55.2.1	Sand cast iron S&S as per IS - 1729	each	303.31
17.55.2.2	Sand cast iron S&S as per IS - 3989	each	317.38
17.56	Providing and fixing terminal guard :		
17.56.1	100 mm		
17.56.1.1	Sand cast iron S&S as per IS - 1729	each	275.03
17.56.1.2	Sand cast iron S&S as per IS - 3989	each	307.83
17.56.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	279.72
17.56.2	75 mm		
17.56.2.1	Sand cast iron S&S as per IS - 1729	each	222.78
17.56.2.2	Sand cast iron S&S as per IS - 3989	each	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	each	279.72
17.57.1.2	Sand cast iron S&S as per IS - 3989	each	307.83
17.57.2	75 mm		
17.57.2.1	Sand cast iron S&S as per IS - 1729	each	190.02
17.57.2.2	Sand cast iron S&S as per IS - 3989	each	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	each	284.41
17.57A.2	75 mm dia		
17.57A.2.1	SS 304 grade coupling with EPDM rubber gasket	each	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	each	384.76
17.58.2	75 mm	each	326.48
17.58.3	50 mm	each	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	each	90.06
17.59.2	75 mm	each	56.07
17.59.3	50 mm	each	51.63

17.6	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	each	1,122.87
17.60.1.2	Sand Cast Iron S&S as per IS: 1729	each	982.42
17.60.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	532.60
17.60.2	100 mm inlet and 75 mm outlet		
17.60.2.1	Sand cast iron S&S as per IS - 3989	each	1,169.70
17.60.2.2	Sand Cast Iron S&S as per IS- 1729	each	907.48
17.60.2.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	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	metre	430.99
17.61.2	75 mm dia	metre	309.54
17.61.3	50 mm dia	metre	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.	each	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.	each	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.	each	170.80
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	metre	48.69
17.65.2	75 mm diameter pipe	metre	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	metre	23.38

17.66.2	75 mm diameter pipe	metre	17.50
17.67	Repainting bath tub of size 1700x730x430 mm with enamel paint.	each	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.	each	7,228.66
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	each	72.10
17.69.2	Waste coupling 38 mm dia of 83 mm length and 77mm breadth, weighing not less than 60 gms	each	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	each	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	each	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.	each	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.	each	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	each	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.	each	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.	each	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.	each	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	each	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)	each	173.57
17.77.2	Total bracket length 810 mm of approved shape and design (for two 100 mm dia pipes)	each	214.83
17.77.3	Total bracket length 1040 mm of approved shape and design (for three 100 mm dia pipes)	each	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.	each	9,125.59
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.	each	11,178.06
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.	each	4,903.12

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.	each	11,270.28



<b>SUB HEAD : 18.0</b>			
<b>WATER SUPPLY</b>			
BASIC RATES (SH: 18.0 WATER SUPPLY)			
<b>Code No</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0010	Hire charges of Derrick monkey rope	day	750.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0116	Fitter (grade 1)	day	784.00
0117	Assistant Fitter or 2nd class Fitter	day	714.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0593	C.P. Brass Extension Nipple (1/2"x2" size)	each	40.00
0761	Fuel wood	quintal	500.00
0771	Kerosene oil	litre	50.00
1301	Bleaching powder	quintal	1,800.00
1304	Surface box for stop cock	each	125.00
1305	Surface box for sluice valve	each	210.00
1307	Surface box for water meter	each	250.00
1339	Brass bib-cock 15 mm dia	each	210.00
1340	Brass bib-cock 20 mm dia	each	225.00
1342	Brass stop-cock 15 mm dia	each	210.00
1343	Brass stop-cock 20 mm dia	each	225.00
1360	C.I. mouth, brass ferrule 15 mm dia	each	140.00
1361	C.I. mouth, brass ferrule 20 mm dia	each	160.00
1362	C.I. mouth, brass ferrule 25 mm dia	each	220.00
1373	Rubber insertions for 80 mm dia pipe joints	each	16.00
1374	Rubber insertions for 100 mm dia pipe joints	each	18.00
1375	Rubber insertions for 125 mm dia pipe joints	each	20.00
1376	Rubber insertions for 150 mm dia pipe joints	each	20.00
1377	Rubber insertions for 200 mm dia pipe joints	each	25.00
1378	Rubber insertions for 250 mm dia pipe joints	each	40.00
1379	Rubber insertions for 300 mm dia pipe joints	each	45.00
1380	Rubber insertions for 350 mm dia pipe joints	each	50.00
1381	Rubber insertions for 400 mm dia pipe joints	each	73.00
1382	Rubber insertions for 450 mm dia pipe joints	each	92.00
1383	Rubber insertions for 500 mm dia pipe joints	each	110.00
1384	Rubber insertions for 600 mm dia pipe joints	each	125.00
1397	Pig lead	kilogram	210.00
1464	S & S.C.I. standard specials upto 300 mm dia (heavy class)	quintal	3,800.00
1466	S & S.C.I. standard specials over 300 mm dia (heavy class)	quintal	3,800.00
1468	Flanged C.I. standard specials upto 300 mm dia (heavy class)	quintal	5,700.00
1470	Flanged C.I. standard specials over 300 mm dia (heavy class)	quintal	5,250.00
1472	Casing pipe 100 mm dia	metre	340.00
1545	G.I. pipes 15 mm dia	metre	95.00
1546	G.I. pipes 20 mm dia	metre	130.00

1547	G.I. pipes 25 mm dia	metre	196.00
1548	G.I. pipes 32 mm dia	metre	225.00
1549	G.I. pipes 40 mm dia	metre	290.00
1550	G.I. pipes 50 mm dia	metre	360.00
1551	G.I. pipes 65 mm dia	metre	415.00
1552	G.I. pipes 80 mm dia	metre	525.00
1555	G.I. back (jam) nuts 25 mm dia	each	18.00
1559	G.I. back (jam) nuts 65 mm dia	each	25.00
1608	G.I. tees (equal) 25 mm	each	65.00
1612	G.I. tees (equal) 65 mm	each	452.00
1641	G.I. Union 15 mm nominal bore	each	35.00
1642	G.I. Union 20 mm nominal bore	each	55.00
1643	G.I. Union 25 mm nominal bore	each	115.00
1644	G.I. Union 32 mm nominal bore	each	145.00
1645	G.I. Union 40 mm nominal bore	each	230.00
1646	G.I. Union 50 mm nominal bore	each	310.00
1647	G.I. Union 65 mm nominal bore	each	525.00
1648	G.I. Union 80 mm nominal bore	each	575.00
1649	Polyethylene water storage tank with cover and suitable locking arrangement	per litre	6.10
1687	Unplasticised P.V.C. connection pipe with brass union 30 cm long 15 mm bore	each	30.00
1688	Unplasticised P.V.C. connection pipe with brass union 30 cm long 20 mm bore	each	35.00
1689	Unplasticised P.V.C. connection pipe with brass union 45 cm long 15 mm bore	each	35.00
1690	Unplasticised P.V.C. connection pipe with brass union 45 cm long 20 mm bore	each	48.00
1693	S.C.I. hand pump	each	700.00
1878	Shower rose C.P. brass for 15 to 20 mm inlet 100 mm dia	each	110.00
1879	Shower rose C.P. brass for 15 to 20 mm inlet 150 mm dia	each	125.00
1881	Spun yarn	kilogram	55.00
1882	Strainer brass 40 mm dia 1.5 metre long	each	625.00
1922	H.P. or L.P. ball valve with polythene floats: 15 mm dia	each	215.00
1923	H.P. or L.P. ball valve with polythene floats: 20 mm dia	each	240.00
1924	H.P. or L.P. ball valve with polythene floats: 25 mm dia	each	230.00
1926	20 mm dia Gunmetal gate valve with wheel	each	325.00
1927	Brass full way valve with C.I. wheel (screwed end) 25 mm dia	each	375.00
1928	Brass full way valve with C.I. wheel (screwed end) 32 mm dia	each	415.00
1929	Brass full way valve with C.I. wheel (screwed end) 40 mm dia	each	500.00
1930	Brass full way valve with C.I. wheel (screwed end) 50 mm dia	each	625.00
1931	Brass full way valve with C.I. wheel (screwed end) 65 mm dia	each	1,080.00

1932	Brass full way valve with C.I. wheel (screwed end) 80 mm dia	each	1,625.00
1933	Gunmetal non-return valve-horizontal (screwed end) 25 mm dia	each	350.00
1934	Gunmetal non-return valve-horizontal (screwed end) 32 mm dia	each	475.00
1935	Gunmetal non-return valve-horizontal (screwed end) 40 mm dia	each	575.00
1936	Gunmetal non-return valve-horizontal (screwed end) 50 mm dia	each	840.00
1937	Gunmetal non-return valve-horizontal (screwed end) 65 mm dia	each	1,525.00
1938	Gunmetal non-return valve-horizontal (screwed end) 80 mm dia	each	2,300.00
1940	C.I. sluice valve (with caps) class I: 100 mm dia	each	2,450.00
1941	C.I. sluice valve (with caps) class I : 125 mm dia	each	2,610.00
1942	C.I. sluice valve (with caps) class I: 150 mm dia	each	3,650.00
1943	C.I. sluice valve (with caps) class I : 200 mm dia	each	7,600.00
1944	C.I. sluice valve (with caps) class I : 250 mm dia	each	10,980.00
1945	C.I. sluice valve (with caps) class I: 300 mm dia	each	15,500.00
1956	Bolts and nuts 16 mm dia 60 mm long	each	11.50
1957	Bolts and nuts 16 mm dia 65 mm long	each	13.00
1958	Bolts and nuts 20 mm dia 65 mm long	each	15.00
1959	Bolts and nuts 20 mm dia 70 mm long	each	17.50
1960	Bolts and nuts 20 mm dia 75 mm long	each	17.00
1961	Bolts and nuts 20 mm dia 80 mm long	each	17.00
1962	Bolts and nuts 24 mm dia 85 mm long	each	27.00
1963	Bolts and nuts 24 mm dia 90 mm long	each	31.00
1964	Bolts and nuts 27 mm dia 100 mm long	each	37.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	145.72
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	145.72
2309	Carriage of Cast Iron fittings	tonne	145.72
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	358.32
2320	Carriage of Spun iron S & S pipes 125 mm dia	100 metre	478.62
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	597.20
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	971.45
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	1,380.48
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	1,706.30
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	2,388.82
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	3,257.48
2327	Carriage of Spun iron S & S pipes 450 mm dia	100 metre	3,981.36
2328	Carriage of Spun iron S & S pipes 500 mm dia	100 metre	3,981.36
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	5,972.04
2330	Carriage of C.I. pipes 500 mm dia	100 metre	3,981.36
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	8,958.06
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	11,944.08
2333	Carriage of R.C.C. pipes 1100 mm dia	100 metre	11,944.08
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	11,944.08
2335	Carriage of Jamuna sand	cum	163.93
2341	Carriage of Pig lead	tonne	145.72

2343	Carriage of Ductile Iron pipes (k7) 100 mm dia	100 metre	358.32
2344	Carriage of Cast iron pipes 150 mm dia	100 metre	597.20
2345	Carriage of Cast iron pipes 200 mm dia	100 metre	971.45
2346	Carriage of Cast iron pipes 250 mm dia	100 metre	1,380.48
2347	Carriage of Cast iron pipes 300 mm dia	100 metre	1,706.30
2348	Carriage of Cast iron pipes 350 mm dia	100 metre	2,388.82
2349	Carriage of Cast iron pipes 400 mm dia	100 metre	3,257.48
2350	Carriage of Cast iron pipes 450 mm dia	100 metre	3,981.36
2351	Carriage of Cast iron pipes 500 mm dia	100 metre	3,981.36
2352	Carriage of Cast iron pipes 600 mm dia	100 metre	5,972.04
2353	Carriage of Cast iron pipes 700 mm dia	100 metre	5,972.04
2355	Carriage of Cast iron pipes 800 mm dia	100 metre	5,972.04
2356	Carriage of Cast iron pipes 900 mm dia	100 metre	8,958.06
2357	Carriage of Cast iron pipes 1000 mm dia	100 metre	11,944.08
3080	Gunmetal non-return valve - vertical (screwed end) 25 mm dia	each	400.00
3084	Gunmetal non-return valve - vertical (screwed end) 32 mm dia	each	550.00
3088	Gunmetal non-return valve - vertical (screwed end) 40 mm dia	each	750.00
3092	Gunmetal non-return valve - vertical (screwed end) 50 mm dia	each	950.00
3096	Gunmetal non-return valve - vertical (screwed end) 65 mm dia	each	1,550.00
3300	Gunmetal non-return valve - vertical (screwed end) 80 mm dia	each	2,600.00
3311	C.I. sluice valve (with caps) class II : 100 mm dia	each	2,700.00
3314	C.I. sluice valve (with caps) class II : 125 mm dia	each	3,300.00
3317	C.I. sluice valve (with caps) class II : 150 mm dia	each	4,100.00
3320	C.I. sluice valve (with caps) class II : 200 mm dia	each	8,900.00
3321	C.I. sluice valve (with caps) class II : 250 mm dia	each	15,000.00
3326	C.I. sluice valve (with caps) class II : 300 mm dia	each	18,500.00
3327	15 mm Battery Based Sensor Pillar Cock	each	6,000.00
6501	Sand	cum	1,300.00
7257	C.P. Brass bibcock 15 mm	each	300.00
7258	C.P. Brass long nose bibcock 15 mm	each	500.00
7259	C.P. Brass long body bibcock 15 mm	each	500.00
7260	C.P. Brass stop cock (concealed) 15 mm	each	420.00
7261	C.P. Brass angle valve 15 mm	each	350.00
7400	15 mm PTMT bib cock	each	65.00
7401	15 mm PTMT bib cock with flange (fancy)	each	90.00
7402	15 mm PTMT bib cock long body with flange	each	100.00
7403	15 mm dia PTMT stop cock (male thread)	each	60.00
7405	20 mm dia PTMT stop cock	each	68.00
7406	PTMT pillar cock	each	115.00
7407	PTMT push cock 15 mm dia	each	55.00
7408	PTMT push cock 12 mm dia 20 mm BSP	each	45.00
7409	PTMT grating 100 mm dia	each	16.00
7410	PTMT Pillar cock (fancy) 15 mm foam flow	each	125.00
7411	125 mm grating with waste hole	each	25.00

7412	Rectangular type with openable circular lid 150 mm size 18 mm high with 100 mm dia (110 gm)	each	118.00
7415	Double acting air valve 50 mm	each	3,715.00
7416	Double acting air valve 80 mm	each	4,525.00
7417	Double acting air valve 100 mm	each	5,910.00
7418	Water meter (including testing charges) 80 mm	each	2,030.00
7419	Water meter (including testing charges) 100 mm	each	3,143.00
7420	Water meter (including testing charges) 150 mm	each	4,765.00
7421	Water meter (including testing charges) 200 mm	each	5,145.00
7422	Dirt box strainer 80 mm	each	2,680.00
7423	Dirt box strainer 100 mm	each	4,370.00
7424	Dirt box strainer 150 mm	each	5,540.00
7425	Dirt box strainer 200 mm	each	7,860.00
7495	PTMT Ball Cock 15mm complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	75.00
7496	PTMT Ball Cock 20mm complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	110.00
7497	PTMT Ball Cock 25mm complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	275.00
7498	PTMT Ball Cock 40mm complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	420.00
7499	PTMT Ball Cock 50mm complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	820.00
7500	PTMT Angle Stop cock with Flange 15 mm	each	85.00
7501	PTMT Swiveling shower 15 mm	each	65.00
7509	PTMT Soap Dish/Holder 138x102x75 mm	each	58.00
7651	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 100 mm dia	metre	765.00
7652	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 150 mm dia	metre	1,150.00
7653	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 200 mm dia	metre	1,575.00
7654	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 250 mm dia	metre	2,200.00
7655	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 300 mm dia	metre	2,750.00
7656	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 350 mm dia	metre	3,350.00
7657	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 400 mm dia	metre	4,300.00
7658	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 450 mm dia	metre	5,000.00
7659	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 500 mm dia	metre	6,270.00
7660	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 600 mm dia	metre	7,560.00
7661	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 700 mm dia	metre	10,500.00
7662	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 750 mm dia	metre	11,350.00

7663	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 800 mm dia	metre	11,450.00
7664	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 900 mm dia	metre	13,900.00
7665	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 1000 mm dia	metre	15,550.00
7666	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 100 mm dia	each	29.00
7668	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 150 mm dia	each	33.00
7669	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 200 mm dia	each	60.00
7670	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 250 mm dia	each	70.00
7671	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 300 mm dia	each	100.00
7672	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 350 mm dia	each	116.00
7673	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 400 mm dia	each	210.00
7674	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 450 mm dia	each	250.00
7675	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 500 mm dia	each	270.00
7676	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 600 mm dia	each	356.00
7677	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 700 mm dia	each	510.00
7678	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 750 mm dia	each	600.00
7679	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 800 mm dia	each	705.00
7680	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 900 mm dia	each	910.00
7681	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 1000 mm dia	each	1,080.00
7682	Ductile Iron K - 12 specials suitable for push on jointing up to 600 mm dia	quintal	12,400.00
7683	Ductile Iron K - 12 specials suitable for push on jointing over 600 mm dia	quintal	17,200.00
7684	Ductile Iron specials suitable for mechanical jointing as per I.S. 9523 - up to 600 mm dia	quintal	13,050.00
7685	Ductile Iron Specials suitable for mechanical jointing as per I.S. 9523 over 600 mm dia	quintal	18,750.00
7686	Ductile Iron Pipe Class K-9 flanges and welding 100 mm	metre	1,100.00
7687	Ductile Iron Pipe Class K-9 flanges and welding 150 mm	metre	1,650.00
7688	Ductile Iron Pipe Class K-9 flanges and welding 200 mm	metre	2,075.00
7689	Ductile Iron Pipe Class K-9 flanges and welding 250 mm	metre	2,950.00
7690	Ductile Iron Pipe Class K-9 flanges and welding 300 mm	metre	3,790.00
7691	Ductile Iron Pipe Class K-9 flanges and welding 350 mm	metre	4,780.00

7692	Ductile Iron Pipe Class K-9 flanges and welding 400 mm	metre	6,150.00
7693	Ductile Iron Pipe Class K-9 flanges and welding 450 mm	metre	6,453.00
7694	Ductile Iron Pipe Class K-9 flanges and welding 500 mm	metre	9,180.00
7695	Ductile Iron Pipe Class K-9 flanges and welding 600 mm	metre	12,150.00
7696	Ductile Iron Pipe Class K-9 flanges and welding 700 mm	metre	14,370.00
7697	S&S Centrifugally (Spun) C.I. Pipe class LA 100 mm dia	metre	857.00
7698	S&S Centrifugally (Spun) C.I. Pipe class LA 125 mm dia	metre	1,067.00
7699	S&S Centrifugally (Spun) C.I. Pipe class LA 150 mm dia	metre	1,286.00
7700	S&S Centrifugally (Spun) C.I. Pipe class LA 200 mm dia	metre	2,190.00
7701	S&S Centrifugally (Spun) C.I. Pipe class LA 250 mm dia	metre	2,857.00
7702	S&S Centrifugally (Spun) C.I. Pipe class LA 300 mm dia	metre	3,857.00
7703	S&S Centrifugally (Spun) C.I. Pipe class LA 350 mm dia	metre	4,619.00
7704	S&S Centrifugally (Spun) C.I. Pipe class LA 400 mm dia	metre	6,095.00
7705	S&S Centrifugally (Spun) C.I. Pipe class LA 450 mm dia	metre	7,381.00
7706	S&S Centrifugally (Spun) C.I. Pipe class LA 500 mm dia	metre	8,571.00
7707	S&S Centrifugally (Spun) C.I. Pipe class LA 600 mm dia	metre	11,995.00
7708	S&S Centrifugally (Spun) C.I. Pipe Specials as per IS 1538 suitable for lead jointing up to 300 mm dia	quintal	5,190.00
7709	S&S Centrifugally (Spun) C.I. Pipe Specials as per IS 1538 suitable for lead jointing over 300 mm dia	quintal	6,200.00
7710	S&S Centrifugally (Spun) C.I. Pipe specials suitable for mechanical joint as per I.S. 13382 up to 300 mm dia	quintal	8,571.00
7711	S&S Centrifugally (Spun) C.I. Pipe Specials suitable for mechanical joint as per I.S. 13382 over 300 mm dia	quintal	9,048.00
7712	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 100 mm dia	metre	1,310.00
7713	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 150 mm dia	metre	2,048.00
7714	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 200 mm dia	metre	3,238.00
7715	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 250 mm dia	metre	3,905.00
7716	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 300 mm dia	metre	4,990.00
7717	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 350 mm dia	metre	6,286.00
7718	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 400 mm dia	metre	8,143.00
7719	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 450 mm dia	metre	10,381.00
7720	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 500 mm dia	metre	12,914.00
7721	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 600 mm dia	metre	17,905.00
7722	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 100 mm dia	metre	800.00
7723	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 150 mm dia	metre	1,140.00
7724	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 200 mm dia	metre	1,400.00

7725	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 250 mm dia	metre	1,800.00
7726	Ductile Iron Class K- 7 pipe conforming to i.S. 8329 - 300 mm dia	metre	2,250.00
7727	Ductile Iron Class K- 7 pipe conforming to i.S. 8329 - 350 mm dia	metre	2,650.00
7728	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 400 mm dia	metre	3,175.00
7729	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 450 mm dia	metre	3,852.00
7730	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 500 mm dia	metre	4,350.00
7731	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 600 mm dia	metre	5,600.00
7732	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 700 mm dia	metre	7,300.00
7733	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 800 mm dia	metre	9,100.00
7734	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 900 mm dia	metre	11,800.00
7735	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 1000 mm dia	metre	12,300.00
7859	P.T.M.T. Bib cock with nozzle 15 mm	each	110.00
7861	P.T.M.T. Stop cock (concealed) 15 mm	each	120.00
7862	15 mm nominal bore and 30 cm length PVC connection pipe with P.T.M.T. Nuts	each	38.00
7863	15 mm nominal bore and 45 cm length PVC connection pipe with P.T.M.T. Nuts	each	52.00
7864	P.T.M.T. extension nipple 15 mm	each	25.00
7865	P.T.M.T. extension nipple 20 mm	each	50.00
7866	P.T.M.T. extension nipple 25 mm	each	68.00
8300	1216 mm PE-AL-PE Composite pressure pipe	metre	80.00
8301	1620 mm PE-AL-PE Composite pressure pipe	metre	90.00
8302	2025 mm PE-AL-PE Composite pressure pipe	metre	140.00
8303	2532 mm PE-AL-PE Composite pressure pipe	metre	180.00
8304	3240 mm PE-AL-PE Composite pressure pipe	metre	280.00
8305	4050 mm PE-AL-PE Composite pressure pipe	metre	360.00
8636	Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm outer dia	metre	49.00
8637	Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm outer dia	metre	80.00
8638	Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm outer dia	metre	127.97
8639	Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm outer dia	metre	165.00
8640	Chlorinated Polyvinyl - chloride (CPVC) pipe 40 mm outer dia	metre	230.00
8641	Chlorinated Polyvinyl - chloride (CPVC) pipe 50 mm outer dia	metre	375.00



8642	Chlorinated Polyvinyl - chloride (CPVC) pipe 62.5 mm inner dia	metre	793.30
8643	Chlorinated Polyvinyl - chloride (CPVC) pipe 75 mm inner dia	metre	1,031.05
8644	Chlorinated Polyvinyl - chloride (CPVC) pipe 100 mm inner dia	metre	1,466.75
8645	Chlorinated Polyvinyl - chloride (CPVC) pipe 150 mm inner dia	metre	3,145.15
8701	SS pipe 304 grades with press fit technology as per JIS 3448 standard 48.60 mm outer dia	metre	620.00
8702	Coupling/Socket fittings for 15.88 mm outer dia SS pipe	each	60.00
8779	SS pipe 304 grades with press fit technology as per JIS 3448 standard 15.88 mm outer dia	metre	140.00
8780	SS pipe 304 grades with press fit technology as per JIS 3448 standard 22.22 mm outer dia	metre	250.00
8781	SS pipe 304 grades with press fit technology as per JIS 3448 standard 28.58 mm outer dia	metre	310.00
8782	SS pipe 304 grades with press fit technology as per JIS 3448 standard 34.00 mm outer dia	metre	439.50
8783	SS pipe 304 grades with press fit technology as per JIS 3448 standard 42.70 mm outer dia	metre	450.00
8786	Coupling/Socket fittings for 22.22 mm outer dia SS pipe	each	70.00
8787	Coupling/Socket fittings for 28.58 mm outer dia SS pipe	each	96.25
8788	Coupling/Socket fittings for 34.00 mm outer dia SS pipe	each	135.00
8789	Coupling/Socket fittings for 42.70 mm outer dia SS pipe	each	160.00
8790	Coupling/Socket fittings for 48.60 mm outer dia SS pipe	each	180.00
8791	Reducer for 22.22 mm X 15.88 mm outer Dia SS pipe	each	108.50
8792	Reducer for 28.58 mm X 15.88 mm outer Dia SS pipe	each	152.50
8793	Reducer for 28.58 mm X 22.22 mm outer Dia SS pipe	each	161.50
8794	Reducer for 34.00 mm X 15.88 mm outer Dia SS pipe	each	200.00
8795	Reducer for 34.00 mm X 22.22 mm outer Dia SS pipe	each	210.00
8796	Reducer for 34.00 mm X 28.58 mm outer Dia SS pipe	each	210.00
8797	Reducer for 42.70 mm X 15.88 mm outer Dia SS pipe	each	375.00
8798	Reducer for 42.70 mm X 22.22 mm outer Dia SS pipe	each	375.00
8799	Reducer for 42.70 mm X 28.58 mm outer Dia SS pipe	each	390.00
8800	Reducer for 42.70 mm X 34.00 mm outer Dia SS pipe	each	390.00
8801	Reducer for 48.60 mm X 15.88 mm outer Dia SS pipe	each	425.00
8802	Reducer for 48.60 mm X 22.22 mm outer Dia SS pipe	each	425.00
8803	Reducer for 48.60 mm X 28.58 mm outer Dia SS pipe	each	425.00
8804	Reducer for 48.60 mm X 34.00 mm outer Dia SS pipe	each	425.00
8805	Reducer for 48.60 mm X 42.70 mm outer Dia SS pipe	each	425.00
8806	Slip Coupling / Socket 15.88 mm outer dia SS pipe	each	55.00
8807	Slip Coupling / Socket 22.22 mm outer dia SS pipe	each	70.00
8808	Slip Coupling / Socket 28.58 mm outer dia SS pipe	each	95.00
8809	Slip Coupling / Socket 34.00 mm outer dia SS pipe	each	135.00
8810	Slip Coupling / Socket 42.70 mm outer dia SS pipe	each	160.00
8811	Slip Coupling / Socket 48.60 mm outer dia SS pipe	each	175.00
8812	Elbow 90° for 15.88 mm outer dia SS pipe	each	65.00
8813	Elbow 90° for 22.22 mm outer dia SS pipe	each	70.00
8814	Elbow 90° for 28.58 mm outer dia SS pipe	each	105.00

8815	Elbow 90° for 34.00 mm outer dia SS pipe	each	120.00
8816	Elbow 90° for 42.70 mm outer dia SS pipe	each	130.00
8817	Elbow 90° for 48.60 mm outer dia SS pipe	each	160.00
8818	Reducing Elbow 90° for 22.22 mm X 15.88 mm outer dia SS pipe	each	150.00
8819	Reducing Elbow 90° for 28.58 mm X 15.88 mm outer dia SS pipe	each	210.00
8820	Reducing Elbow 90° for 28.58 mm X 22.22 mm outer dia SS pipe	each	250.00
8821	Reducing Elbow 90° for 34.00 mm X 22.22 mm outer dia SS pipe	each	295.00
8822	Reducing Elbow 90° for 34.00 mm X 28.58 mm outer dia SS pipe	each	350.00
8823	Reducing Elbow 90° for 42.70 mm X 34.00 mm outer dia SS pipe	each	190.00
8824	Equal Tee for 15.88 mm outer dia SS pipe	each	175.00
8825	Equal Tee for 22.22 mm outer dia SS pipe	each	250.00
8826	Equal Tee for 28.58 mm outer dia SS pipe	each	295.00
8827	Equal Tee for 34.00 mm outer dia SS pipe	each	440.00
8828	Equal Tee for 42.70 mm outer dia SS pipe	each	695.00
8829	Equal Tee for 48.60 mm outer dia SS pipe	each	915.00
8830	Reducing Tee for 22.22 mm X 15.88 mm outer dia SS	each	185.00
8831	Reducing Tee for 28.58 mm X 15.88 mm outer dia SS pipe	each	290.00
8832	Reducing Tee for 28.58 mm X 22.22 mm outer dia SS pipe	each	290.00
8833	Reducing Tee for 34.00 mm X 15.88 mm outer dia SS pipe	each	440.00
8834	Reducing Tee for 34.00 mm X 22.22 mm outer dia SS pipe	each	440.00
8835	Reducing Tee for 34.00 mm X 28.58 mm outer dia SS pipe	each	690.00
8836	Reducing Tee for 42.70 mm X 15.88 mm outer dia SS pipe	each	690.00
8837	Reducing Tee for 42.70 mm X 22.22 mm outer dia SS pipe	each	690.00
8838	Reducing Tee for 42.70 mm X 28.58 mm outer dia SS pipe	each	690.00
8839	Reducing Tee for 42.70 mm X 34.00 mm outer dia SS pipe	each	690.00
8840	Reducing Tee for 48.60 mm X 15.88 mm outer dia SS pipe	each	895.00
8841	Reducing Tee for 48.60 mm X 22.22 mm outer dia SS pipe	each	895.00
8842	Reducing Tee for 48.60 mm X 28.58 mm outer dia SS pipe	each	895.00
8843	Reducing Tee for 48.60mm X 34.00 mm outer dia SS pipe	each	895.00
8844	Reducing Tee for 48.60mm X 42.70mm outer dia SS pipe	each	895.00

8845	Stainless steel Male thread Tee for 15.88 mm outer dia X 15 mm nominal dia threaded	each	185.00
8846	Stainless steel Male thread Tee for 22.22 mm outer dia X 15 mm nominal dia threaded	each	215.00
8847	Stainless steel Male thread Tee for 22.22 mm outer dia X 20 mm nominal dia threaded	each	215.00
8848	Stainless steel Male thread Tee for 28.58 mm outer dia X 15 mm nominal dia threaded	each	295.00
8849	Stainless steel Male thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	295.00
8850	Stainless steel Male thread Tee for 28.58 mm outer dia X 25 mm nominal dia threaded	each	295.00
8851	Stainless steel Male thread Tee for 34.00 mm outer dia X 15 mm nominal dia threaded	each	465.00
8852	Stainless steel Male thread Tee for 34.00 mm outer dia X 20 mm nominal dia threaded	each	465.00
8853	Stainless steel Male thread Tee for 34.00 mm outer dia X 25 mm nominal dia threaded	each	465.00
8854	Stainless steel Male thread Tee for 34.00 mm outer dia X 32 mm nominal dia threaded	each	465.00
8855	Stainless steel Male thread Tee for 42.70 mm outer dia X 15 mm nominal dia threaded	each	710.00
8856	Stainless steel Male thread Tee for 42.70 mm outer dia X 20 mm nominal dia threaded	each	710.00
8857	Stainless steel Male thread Tee for 42.70 mm outer dia X 25 mm nominal dia threaded	each	710.00
8858	Stainless steel Male thread Tee for 42.70 mm outer dia X 32 mm nominal dia threaded	each	710.00
8859	Stainless steel Male thread Tee for 42.70 mm outer dia X 40 mm nominal dia threaded	each	710.00
8860	Stainless steel Male thread Tee for 48.60 mm outer dia X 15 mm nominal dia threaded	each	895.00
8861	Stainless steel Male thread Tee for 48.60 mm outer dia X 20 mm nominal dia threaded	each	895.00
8862	Stainless steel Male thread Tee for 48.60 mm outer dia X 25 mm nominal dia threaded	each	895.00
8863	Stainless steel Male thread Tee for 48.60 mm outer dia X 32 mm nominal dia threaded	each	895.00
8864	Stainless steel Male thread Tee for 48.60 mm outer dia X 40 mm nominal dia threaded	each	895.00
8865	Stainless steel Male thread Tee for 48.60 mm outer dia X 50 mm nominal dia threaded	each	895.00
8866	Stainless steel Female thread Tee for 15.88 mm outer dia X 15 mm nominal dia threaded	each	185.00
8867	Stainless steel Female thread Tee for 22.22 mm outer dia X 15 mm nominal dia threaded	each	205.00
8868	Stainless steel Female thread Tee for 22.22 mm outer dia X 20 mm nominal dia threaded	each	205.00
8869	Stainless steel Female thread Tee for 28.58 mm outer dia X 15 mm nominal dia threaded	each	275.00

8870	Stainless steel Female thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	275.00
8871	Stainless steel Female thread Tee for 28.58 mm outer dia X 25 mm nominal dia threaded	each	275.00
8872	Stainless steel Female thread Tee for 34.00 mm outer dia X 15 mm nominal dia threaded	each	445.00
8873	Stainless steel Female thread Tee for 34.00 mm outer dia X 20 mm nominal dia threaded	each	445.00
8874	Stainless steel Female thread Tee for 34.00 mm outer dia X 25 mm nominal dia threaded	each	445.00
8875	Stainless steel Female thread Tee for 34.00 mm outer dia X 32 mm nominal dia threaded	each	445.00
8876	Stainless steel Female thread Tee for 42.70 mm outer dia X 15 mm nominal dia threaded	each	700.00
8877	Stainless steel Female thread Tee for 42.70 mm outer dia X 20 mm nominal dia threaded	each	700.00
8878	Stainless steel Female thread Tee for 42.70 mm outer dia X 25 mm nominal dia threaded	each	700.00
8879	Stainless steel Female thread Tee for 42.70 mm outer dia X 32 mm nominal dia threaded	each	700.00
8880	Stainless steel Female thread Tee for 42.70 mm outer dia X 40 mm nominal dia threaded	each	700.00
8881	Stainless steel Female thread Tee for 48.60 mm outer dia X 15 mm nominal dia threaded	each	905.00
8882	Stainless steel Female thread Tee for 48.60 mm outer dia X 20 mm nominal dia threaded	each	905.00
8883	Stainless steel Female thread Tee for 48.60 mm outer dia X 25 mm nominal dia threaded	each	905.00
8884	Stainless steel Female thread Tee for 48.60 mm outer dia X 32 mm nominal dia threaded	each	905.00
8885	Stainless steel Female thread Tee for 48.60 mm outer dia X 40 mm nominal dia threaded	each	905.00
8886	Stainless steel Female thread Tee for 48.60 mm outer dia X 50 mm nominal dia threaded	each	905.00
8887	Stainless steel Female threaded Connector/Adapter for 15.88 mm outer dia X 15 mm nominal threaded	each	195.00
8888	Stainless steel Female threaded Connector/Adapter for 22.22 mm outer dia X 15 mm nominal threaded	each	230.00
8889	Stainless steel Female threaded Connector/Adapter for 22.22 mm outer dia X 20 mm nominal threaded	each	240.00
8890	Stainless steel Female threaded Connector/Adapter for 28.58 mm outer dia X 15 mm nominal threaded	each	277.00
8891	Stainless steel Female threaded Connector/Adapter for 28.58 mm outer dia X 20 mm nominal threaded	each	290.00
8892	Stainless steel Female threaded Connector/Adapter for 28.58 mm outer dia X 25 mm nominal threaded	each	355.00
8893	Stainless steel Female threaded Connector/Adapter for 34.00 mm outer dia X 25 mm nominal threaded	each	410.00
8894	Stainless steel Female threaded Connector/Adapter for 34.00 mm outer dia X 32 mm nominal threaded	each	540.00

8895	Stainless steel Female threaded Connector/Adapter for 42.70 mm outer dia X 32 mm nominal threaded	each	595.00
8896	Stainless steel Female threaded Connector/Adapter for 42.70 mm outer dia X 40 mm nominal threaded	each	695.00
8897	Stainless steel Female threaded Connector/Adapter for 48.60 mm outer dia X 40 mm nominal threaded	each	845.00
8898	Stainless steel Female threaded Connector/Adapter for 48.60 mm outer dia X 50 mm nominal threaded	each	975.00
8899	Stainless steel Male threaded Connector/Adapter for 15.88 mm outer dia X 15 mm nominal threaded	each	195.00
8900	Stainless steel Male threaded Connector/Adapter for 22.22 mm outer dia X 15 mm nominal threaded	each	230.00
8901	Stainless steel Male threaded Connector/Adapter for 22.22 mm outer dia X 20 mm nominal threaded	each	255.00
8902	Stainless steel Male threaded Connector/Adapter for 28.58 mm outer dia X 20 mm nominal threaded	each	325.00
8903	Stainless steel Male threaded Connector/Adapter for 28.58 mm outer dia X 25 mm nominal threaded	each	325.00
8904	Stainless steel Male threaded Connector/Adapter for 34.00 mm outer dia X 25 mm nominal threaded	each	475.00
8905	Stainless steel Male threaded Connector/Adapter for 34.00 mm outer dia X 32 mm nominal threaded	each	565.00
8906	Stainless steel Male threaded Connector/Adapter for 42.70 mm outer dia X 32 mm nominal threaded	each	649.00
8907	Stainless steel Male threaded Connector/Adapter for 42.70 mm outer dia X 40 mm nominal threaded	each	730.00
8908	Stainless steel Male threaded Connector/Adapter for 48.60 mm outer dia X 40 mm nominal threaded	each	850.00
8909	Stainless steel Male threaded Connector/Adapter for 48.60 mm outer dia X 50 mm nominal threaded	each	1,140.00
8910	Stainless steel Valve Connector for 15.88 mm outer dia X 15 mm nominal dia threaded	each	235.00
8911	Stainless steel Valve Connector for 22.22 mm outer dia X 15 mm nominal dia threaded	each	280.00
8912	Stainless steel Valve Connector for 22.22 mm outer dia X 20 mm nominal dia threaded	each	310.00
8913	Stainless steel Valve Connector for 28.58 mm outer dia X 25 mm nominal dia threaded	each	425.00
8914	Stainless steel Valve Connector for 34.00 mm outer dia X 32 mm nominal dia threaded	each	645.00
8915	Stainless steel Valve Connector for 42.70 mm outer dia X 40 mm nominal dia threaded	each	880.00
8916	Stainless steel Valve Connector for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1,210.00
8917	SS Female Threaded Elbow 900 for 15.88 mm outer dia X 15 mm nominal dia threaded	each	160.00
8918	Stainless steel Female Threaded Elbow 900 for 22.22 mm outer dia X 15 mm nominal dia threaded	each	215.00
8919	Stainless steel Female Threaded Elbow 900 for 22.22 mm outer dia X 20 mm nominal dia threaded	each	215.00

8920	Stainless steel Female Threaded Elbow 90O for 28.58 mm outer dia X 25 mm nominal dia threaded	each	215.00
8921	Stainless steel Female Threaded Elbow 90O for 34.00 mm outer dia X 32 mm nominal dia threaded	each	295.00
8922	Stainless steel Female Threaded Elbow 90O for 42.70 mm outer dia X 32 mm nominal dia threaded	each	480.00
8923	Stainless steel Female Threaded Elbow 90O for 42.70 mm outer dia X 40 mm nominal dia threaded	each	480.00
8924	Stainless steel Female Threaded Elbow 90O for 48.60 mm outer dia X 40 mm nominal dia threaded	each	710.00
8925	Stainless steel Female Threaded Elbow 90O for 48.60 mm outer dia X 50 mm nominal dia threaded	each	710.00
8926	Stainless steel Male Threaded Elbow 90O for 15.88 mm outer dia X 15 mm nominal dia threaded	each	195.00
8927	Stainless steel Male Threaded Elbow 90O for 22.22 mm outer dia X 15 mm nominal dia threaded	each	225.00
8928	Stainless steel Male Threaded Elbow 90O for 22.22 mm outer dia X 20 mm nominal dia threaded	each	225.00
8929	Stainless steel Male Threaded Elbow 90O for 28.58 mm outer dia X 25 mm nominal dia threaded	each	225.00
8930	Stainless steel Male Threaded Elbow 90O for 34.00 mm outer dia X 25 mm nominal dia threaded	each	290.00
8931	Stainless steel Male Threaded Elbow 90O for 34.00 mm outer dia X 32 mm nominal dia threaded	each	290.00
8932	Stainless steel Male Threaded Elbow 90O for 42.70 mm outer dia X 32 mm nominal dia threaded	each	480.00
8933	Stainless steel Male Threaded Elbow 90O for 42.70 mm outer dia X 40 mm nominal dia threaded	each	480.00
8934	Stainless steel Male Threaded Elbow 90O for 48.60 mm outer dia X 40 mm nominal dia threaded	each	695.00
8935	Stainless steel Male Threaded Elbow 90O for 48.60 mm outer dia X 50 mm nominal dia threaded	each	695.00
8936	Stainless steel Cap for 15.88 mm outer dia pipe	each	48.00
8937	Stainless steel Cap for 22.22 mm outer dia pipe	each	70.00
8938	Stainless steel Cap for 28.58 mm outer dia pipe	each	90.00
8939	Stainless steel Cap for 34.00 mm outer dia pipe	each	175.00
8940	Stainless steel Cap for 42.70 mm outer dia pipe	each	250.00
8941	Stainless steel Cap for 48.60 mm outer dia pipe	each	325.00
8942	Stainless steel Pipe Bridge for 15.88 mm outer dia pipe	each	220.00
8943	Stainless steel Pipe Bridge for 15.88 mm outer dia pipe	each	290.00
8944	Stainless steel Pipe Bridge for 28.58 mm outer dia pipe	each	415.00
9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

<b>18.0 WATER SUPPLY</b>			
PE-AL-PE COMPOSITE PRESSURE PIPES			
Code No.	Description	Unit	Rate
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	metre	206.19
18.1.2	1620 (20 mm OD) pipe	metre	229.04
18.1.3	2025 (25 mm OD) pipe	metre	300.62
18.1.4	2532 (32 mm OD) pipe	metre	368.94
18.1.5	3240 (40 mm OD) pipe	metre	532.95
18.1.6	4050 (50 mm OD) pipe	metre	630.32
18.2	Providing and fixing Polyethelene-Aluminium-Polyethelene (PE-ALPE) 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	metre	359.63
18.2.2	1620 (20 mm OD) pipe	metre	376.01
18.2.3	2025 (25 mm OD) pipe	metre	457.94
18.2.4	2532 (32 mm OD) pipe	metre	523.50
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	metre	192.68
18.3.2	1620 (20 mm OD ) pipe	metre	204.86
18.3.3	2025 (25 mm OD ) pipe	metre	265.72
18.3.4	2532 (32 mm OD ) pipe	metre	314.44
18.3.5	3240 (40 mm OD ) pipe	metre	452.34
18.3.6	4050 (50 mm OD ) pipe	metre	549.75
C.P.V.C. PIPES			
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 outer dia Pipes	metre	179.13
18.4.2	20 mm nominal outer dia Pipes	metre	227.57
18.4.3	25 mm nominal outer dia Pipes	metre	285.99
18.4.4	32 mm nominal outer dia Pipes	metre	350.67
18.4.5	40 mm nominal outer dia Pipes	metre	472.05
18.4.6	50 mm nominal outer dia Pipes	metre	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 outer dia Pipes	metre	308.81
18.5.2	20 mm nominal outer dia Pipes	metre	359.63
18.5.3	25 mm nominal outer dia Pipes	metre	438.24
18.5.4	32 mm nominal outer dia Pipes	metre	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 outer dia Pipes	metre	154.95
18.6.2	20 mm nominal outer dia Pipes	metre	192.68
18.6.3	25 mm nominal outer dia Pipes	metre	259.46
18.6.4	32 mm nominal outer dia Pipes	metre	304.54
18.6.5	40 mm nominal outer dia Pipes	metre	391.44
18.6.6	50 mm nominal outer dia Pipes	metre	568.30
18.6.7	62.50 mm nominal inner dia Pipes	metre	1,103.83
18.6.8	75 mm nominal inner dia Pipes	metre	1,393.28



18.6.9	100 mm nominal inner dia Pipes	metre	1,968.23
18.6.10	150 mm nominal inner dia Pipes	metre	4,109.88
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	metre	212.91
18.7.2	20 mm dia nominal bore	metre	261.35
18.7.3	25 mm dia nominal bore	metre	343.84
18.7.4	32 mm dia nominal bore	metre	394.52
18.7.5	40 mm dia nominal bore	metre	507.61
18.7.6	50 mm dia nominal bore	metre	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	metre	339.64
18.8.2	20 mm dia nominal bore	metre	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	metre	187.25
18.9.2	20 mm dia nominal bore	metre	220.75
18.9.3	25 mm dia nominal bore	metre	292.57
18.9.4	32 mm dia nominal bore	metre	320.39
18.9.5	40 mm dia nominal bore	metre	390.85
18.9.6	50 mm dia nominal bore	metre	457.94
18.9.7	65 mm dia nominal bore	metre	538.02
18.9.8	80 mm dia nominal bore	metre	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	each	529.97
18.10.2	50 to 80 mm nominal bore	each	1,059.59
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).	Each	469.11
BRASS FITTINGS			
18.12	Providing and fixing brass bib cock of approved quality :		
18.12.1	15 mm nominal bore	each	212.70
18.12.2	20 mm nominal bore	each	229.57
18.13	Providing and fixing brass stop cock of approved quality :		
18.13.1	15 mm nominal bore	each	212.70
18.13.2	20 mm nominal bore	each	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	each	372.65
18.14.1A	20 mm nominal bore	each	323.23
18.14.2	32 mm nominal bore.	each	412.93

18.14.3	40 mm nominal bore	each	495.11
18.14.4	50 mm nominal bore	each	614.78
18.14.5	65 mm nominal bore	each	1,043.49
18.14.6	80 mm nominal bore	each	1,559.32
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	each	244.20
18.15.2	20 mm nominal bore	each	278.22
18.15.3	25 mm nominal bore	each	279.41
18.16	Providing and fixing gun metal non- return valve of approved quality (screwed end) :		
18.16.1	25 mm nominal bore		
	18.19.1.1 Horizontal	each	354.66
	18.19.1.2 Vertical	each	401.45
18.16.2	32 mm nominal bore		
	18.19.2.1 Horizontal	each	474.29
	18.19.2.2 Vertical	each	544.53
18.16.3	40 mm nominal bore		
	18.19.3.1 Horizontal	each	570.54
	18.19.3.2 Vertical	each	734.44
18.16.4	50 mm nominal bore		
	18.19.4.1 Horizontal	each	821.56
	18.19.4.2 Vertical	each	924.56
18.16.5	65 mm nominal bore		
	18.19.5.1 Horizontal	each	1,465.66
	18.19.5.2 Vertical	each	1,489.08
18.16.6	80 mm nominal bore		
	18.19.6.1 Horizontal	each	2,194.36
	18.19.6.2 Vertical	each	2,475.31
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	each	211.12
18.17.2	20 mm nominal bore	each	243.53
18.17.3	25 mm nominal bore	each	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	each	52.36
18.18.1.2	20 mm nominal bore	each	57.05
18.18.2	45 cm length		
18.18.2.1	15 mm nominal bore	each	59.64
18.18.2.2	20 mm nominal bore	each	71.79
18.19	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :		
18.19.1	100 mm diameter	each	116.45
18.19.2	150 mm diameter	each	133.07
C.I./DUCTILE IRON PIPES & SPECIALS			

18.20	Laying in position centrifugally cast (spun) iron S&S or flanged pipes (excluding cost of pipe).	quintal	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).	quintal	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	quintal	3,954.76
18.22.2	Over 300 mm dia	quintal	3,954.76
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	quintal	5,734.23
18.23.2	Over 300 mm dia	quintal	5,312.76
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	metre	847.35
18.24.2	125 mm dia pipe	metre	1,057.70
18.24.3	150 mm dia pipe	metre	1,277.29
18.24.4	200 mm dia pipe	metre	2,158.56
18.24.5	250 mm dia pipe	metre	2,821.35
18.24.6	300 mm dia pipe	metre	3,799.22
18.24.7	350 mm dia pipe	metre	4,563.76
18.24.8	400 mm dia pipe	metre	6,001.07
18.24.9	450 mm dia pipe	metre	7,266.14
18.24.10	500 mm dia pipe	metre	8,434.58
18.24.11	600 mm dia pipe	metre	11,783.03
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	each	287.18
18.25.2	125 mm diameter pipe	each	426.62
18.25.3	150 mm diameter pipe	each	431.03
18.25.4	200 mm diameter pipe	each	572.85
18.25.5	250 mm diameter pipe	each	716.14
18.25.6	300 mm diameter pipe	each	861.46
18.25.7	350 mm diameter pipe	each	876.40
18.25.8	400 mm diameter pipe	each	1,153.67
18.25.9	450 mm diameter pipe	each	1,295.32
18.25.10	500 mm diameter pipe	each	1,369.41
18.25.11	600 mm diameter pipe	each	1,857.73
18.26	Supplying pig lead at site of work.	quintal	19,681.34
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	each	128.00
18.27.2	100 mm diameter pipe	each	199.33
18.27.3	125 mm diameter pipe	each	212.45
18.27.4	150 mm diameter pipe	each	240.49
18.27.5	200 mm diameter pipe	each	263.90
18.27.6	250 mm diameter pipe	each	364.21

18.27.7	300 mm diameter pipe	each	368.90
18.27.8	350 mm diameter pipe	each	463.40
18.27.9	400 mm diameter pipe	each	635.32
18.27.10	450 mm diameter pipe	each	780.36
18.27.11	500 mm diameter pipe	each	885.22
18.27.12	600 mm diameter pipe	each	1,038.03
C.I. SLUICE VALVES/ FIRE HYDRANTS & FIXTURES			
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	each	2,868.53
18.28.1.2	Class II	each	3,150.18
18.28.2	125 mm diameter		
18.28.2.1	Class I	each	3,092.15
18.28.2.2	Class II	each	3,785.85
18.28.3	150 mm diameter		
18.28.3.1	Class I	each	4,186.32
18.28.3.2	Class II	each	4,663.26
18.28.4	200 mm diameter		
18.28.4.1	Class I	each	8,126.65
18.28.4.2	Class II	each	9,458.82
18.28.5	250 mm diameter		
18.28.5.1	Class I	each	11,723.95
18.28.5.2	Class II	each	15,686.83
18.28.6	300 mm diameter		
18.28.6.1	Class I	each	16,213.89
18.28.6.2	Class II	each	19,265.05
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	each	1,198.51

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	each	7,071.75
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	each	12,304.53
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	each	17,072.20

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	each	6,741.46
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	each	6,314.56
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	metre	11.48
18.35.2	20 mm diameter pipe	metre	13.76
18.35.3	25 mm diameter pipe	metre	17.92
18.35.4	32 mm diameter pipe	metre	21.49
18.35.5	40 mm diameter pipe	metre	25.24
18.35.6	50 mm diameter pipe	metre	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	metre	5.67
18.36.2	20 mm diameter pipe	metre	6.72
18.36.3	25 mm diameter pipe	metre	8.58
18.36.4	32 mm diameter pipe	metre	10.26
18.36.5	40 mm diameter pipe	metre	11.90
18.36.6	50 mm diameter pipe	metre	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	metre	7.04
18.37.2	20 mm diameter pipe	metre	8.40
18.37.3	25 mm diameter pipe	metre	10.68

18.37.4	32 mm diameter pipe	metre	12.88
18.37.5	40 mm diameter pipe	metre	14.67
18.37.6	50 mm diameter pipe	metre	17.68
18.37.7	65 mm diameter pipe	metre	21.91
18.37.8	80 mm diameter pipe	metre	25.48
18.38	Providing and filling sand of grading or coarser grade, all round the G.I. pipes in external work :		
18.38.1	15 mm diameter pipe	metre	110.39
18.38.2	20 mm diameter pipe	metre	110.39
18.38.3	25 mm diameter pipe	metre	114.87
18.38.4	32 mm diameter pipe	metre	117.85
18.38.5	40 mm diameter pipe	metre	119.35
18.38.6	50 mm diameter pipe	metre	123.83
18.38.7	65 mm diameter pipe	metre	195.44
18.38.8	80 mm diameter pipe	metre	201.39
18.38.9	100 mm diameter pipe	metre	213.33
18.38.10	150 mm diameter pipe	metre	317.77
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	metre	432.61
18.39.2	Beyond 6 m and up to 12 m depth	metre	511.67
18.39.3	Beyond 12 m and up to 18 m depth	metre	593.15
18.40	Providing and placing in position filters of 40 mm diameter G.I. pipe with brass strainer of approved quality.	metre	569.28
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.	metre	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.	each	825.06
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	each	183.61
18.43.2	20 mm nominal bore	each	202.34
18.43.3	25 mm nominal bore	each	258.55
18.43.4	32 mm nominal bore	each	286.62
18.43.5	40 mm nominal bore	each	366.24
18.43.6	50 mm nominal bore	each	494.69
18.43.7	65 mm nominal bore	each	696.05
18.43.8	80 mm nominal bore	each	742.88
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	each	478.03

18.44.2	20 mm nominal bore	each	496.79
18.44.3	25 mm nominal bore	each	552.97
18.44.4	32 mm nominal bore	each	581.07
18.44.5	40 mm nominal bore	each	660.66
18.44.6	50 mm nominal bore	each	896.21
18.44.7	65 mm nominal bore	each	1,097.57
18.44.8	80 mm nominal bore	each	1,144.40
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.	per litre	6.79
18.45A	rectangular tank	per litre	6.79
C.P. BRASS FITTINGS			
18.46	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :		
18.46.1	15 mm nominal bore	each	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	each	500.54
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	each	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	each	416.33
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	each	350.25
18.50A	Providing and fixing C.P. Brass extension nipple (size 15mmx50mm) of approved make and quality as per direction of Engineer-in-charge.	each	43.19
PTMT FITTINGS			
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	each	76.90
18.51.2	15 mm nominal bore, 122mm long, weighing not less than 99 gms	each	100.31
18.51.3	15 mm nominal bore, 165 mm long, weighing not less than 110 gms	each	109.66
18.51.4	15 mm nominal bore, 90 mm long, weighing not less than 93 gms	each	119.04
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	each	72.21
18.52.2	20 mm nominal bore, 89 mm long, weighing not less than 88 gms	each	79.70
18.52.3	Concealed stop cock, 15 mm nominal bore, 108 mm long, weighing not less than 108 gms	each	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	each	126.56
18.53.2	15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms	each	135.91
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	each	67.52
18.54.2	15 mm nominal bore, 80 mm long, weighing not less than 46 gms	each	58.14
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	each	23.24
18.55.1.2	125 mm nominal dia with 25 mm waste hole	each	31.68
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	each	118.79
AIR VALVE & WATER METER (BULK TYPE)			
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	each	3,620.23
18.56.2	80 mm dia	each	4,378.82
18.56.3	100 mm dia	each	5,749.87
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	each	2,286.27
18.57.2	100 mm dia nominal bore	each	3,497.13
18.57.3	150 mm dia nominal bore	each	5,150.15
18.57.4	200 mm dia nominal bore	each	5,656.11
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	each	2,895.03
18.58.2	100 mm dia	each	4,646.29
18.58.3	150 mm dia	each	5,875.98
18.58.4	200 mm dia	each	8,198.86

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	each	113.09
18.57.2	20 mm nominal bore, 120 mm long, weighing not less than 198 gms	each	156.45
18.57.3	25 mm nominal bore, 152mm long, weighing not less than 440 gms	each	321.58
18.57.4	40 mm nominal bore, 206mm long, weighing not less than 690 gms	each	457.38
18.57.5	50 mm nominal bore, 242mm long, weighing not less than 1240 gms	each	831.99
18.58	Providing and fixing PTMT angle stop cock 15 mm nominal bore, weighing not less than 85 gms	each	95.62
18.59	Providing and fixing PTMT swivelling shower, 15 mm nominal bore, weighing not less than 40 gms	each	74.31
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.	each	67.73
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	quintal	5,256.58
18.61.2	Above 300 mm dia	quintal	6,202.49
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	quintal	8,423.07
18.62.2	Above 300 mm dia	quintal	8,869.81
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	quintal	12,009.13
18.63.2	Above 600 mm dia	quintal	16,504.60
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	quintal	12,617.92
18.64.2	Above 600 mm dia	quintal	17,956.30
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	joint	67.31
18.65.2	150 mm dia pipes	joint	109.24
18.65.3	200 mm dia pipes	joint	160.65
18.65.4	250 mm dia pipes	joint	196.11
18.65.5	300 mm dia pipes	joint	250.32
18.65.6	350 mm dia pipes	joint	291.41
18.65.7	400 mm dia pipes	joint	405.58
18.65.8	450 mm dia pipes	joint	469.14
18.65.9	500 mm dia pipes	joint	500.92
18.65.10	600 mm dia pipes	joint	672.88

18.65.11	650 mm dia pipes	joint	776.32
18.65.12	700 mm dia pipes	joint	879.76
18.65.13	800 mm dia pipes	joint	1,104.15
18.65.14	900 mm dia pipes	joint	1,374.49
18.65.15	1000 mm dia pipes	joint	1,585.92
18.66	Providing and laying Double Flanged (screwed / welded) Centrifugally (Spun) Cast Iron, Class B (IS : 1536) :2		
18.66.1	100 mm dia C.I. Double Flanged Pipe	metre	1,286.67
18.66.2	150 mm dia C.I. Double Flanged Pipe	metre	2,016.00
18.66.3	200 mm dia C.I. Double Flanged Pipe	metre	3,174.57
18.66.4	250 mm dia C.I. Double Flanged Pipe	metre	3,848.64
18.66.5	300 mm dia C.I. Double Flanged Pipe	metre	4,919.25
18.66.6	350 mm dia C.I. Double Flanged Pipe	metre	6,193.32
18.66.7	400 mm dia C.I. Double Flanged Pipe	metre	8,005.41
18.66.8	450 mm dia C.I. Double Flanged Pipe	metre	10,180.91
18.66.9	500 mm dia C.I. Double Flanged Pipe	metre	12,622.58
18.66.10	600 mm dia C.I. Double Flanged Pipe	metre	17,484.01
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	metre	784.77
18.67.2	150 mm dia Ductile Iron Class K-7 pipes	metre	1,120.91
18.67.3	200 mm dia Ductile Iron Class K-7 pipes	metre	1,383.17
18.67.4	250 mm dia Ductile Iron Class K-7 pipes	metre	1,780.84
18.67.5	300 mm dia Ductile Iron Class K-7 pipes	metre	2,224.36
18.67.6	350 mm dia Ductile Iron Class K-7 pipes	metre	2,642.15
18.67.7	400 mm dia Ductile Iron Class K-7 pipes	metre	2,217.38
18.67.8	450 mm dia Ductile Iron Class K-7 pipes	metre	3,835.90
18.67.9	500 mm dia Ductile Iron Class K-7 pipes	metre	4,334.05
18.67.10	600 mm dia Ductile Iron Class K-7 pipes	metre	5,590.24
18.67.11	700 mm dia Ductile Iron Class K-7 pipes	metre	5,101.24
18.67.12	800 mm dia Ductile Iron Class K-7 pipes	metre	9,087.40
18.67.13	900 mm dia Ductile Iron Class K-7 pipes	metre	11,725.98
18.67.14	1000 mm dia Ductile Iron Class K-7 pipes	metre	12,359.06
18.67.15	100 mm dia Ductile Iron Class K-9 pipes	metre	756.95
18.67.16	150 mm dia Ductile Iron Class K-9 pipes	metre	1,137.54
18.67.17	200 mm dia Ductile Iron Class K-9 pipes	metre	1,559.71
18.67.18	250 mm dia Ductile Iron Class K-9 pipes	metre	2,173.64
18.67.19	300 mm dia Ductile Iron Class K-9 pipes	metre	2,717.89
18.67.20	350 mm dia Ductile Iron Class K-9 pipes	metre	3,326.44
18.67.21	400 mm dia Ductile Iron Class K-9 pipes	metre	4,255.79
18.67.22	450 mm dia Ductile Iron Class K-9 pipes	metre	4,951.94
18.67.23	500 mm dia Ductile Iron Class K-9 pipes	metre	6,180.06
18.67.24	600 mm dia Ductile Iron Class K-9 pipes	metre	7,488.74
18.67.25	700 mm dia Ductile Iron Class K-9 pipes	metre	10,325.67
18.67.26	750 mm dia Ductile Iron Class K-9 pipes	metre	11,220.72
18.67.27	800 mm dia Ductile Iron Class K-9 pipes	metre	11,393.55
18.67.28	900 mm dia Ductile Iron Class K-9 pipes	metre	13,801.34
18.67.29	1000 mm dia Ductile Iron Class K-9 pipes	metre	15,469.72
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	metre	1,079.12
18.68.2	150 mm dia Ductile Iron Double Flanged	metre	1,133.32
18.68.3	200 mm dia Ductile Iron Double Flanged	metre	2,044.81
18.68.4	250 mm dia Ductile Iron Double Flanged	metre	2,899.89
18.68.5	300 mm dia Ductile Iron Double Flanged	metre	3,725.16
18.68.6	350 mm dia Ductile Iron Double Flanged	metre	4,690.11
18.68.7	400 mm dia Ductile Iron Double Flanged	metre	6,016.01
18.68.8	450 mm dia Ductile Iron Double Flanged	metre	6,347.92
18.68.9	500 mm dia Ductile Iron Double Flanged	metre	8,944.11
18.68.10	600 mm dia Ductile Iron Double Flanged	metre	11,850.90
18.68.11	700 mm dia Ductile Iron Double Flanged	metre	14,028.42
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	each	59.85
18.69.2	15 mm nominal bore with 45 cm length	each	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	each	30.14
18.70.2	20 mm nominal bore, weighing not less than 40 gms	each	53.55
18.70.3	25mm nominal bore, weighing not less than 62 gms	each	70.39
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	each	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.	each	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.	metre	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.	metre	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	100 metre	1,066.77
18.75.2	100 mm diameter C.I. pipe	100 metre	1,397.55
18.75.3	125 mm diameter C.I. pipe	100 metre	1,740.62
18.75.4	150 mm diameter C.I. pipe	100 metre	2,082.43
18.75.5	200 mm diameter C.I. pipe	100 metre	2,768.12
18.75.6	250 mm diameter C.I. pipe	100 metre	3,472.21
18.75.7	300 mm diameter C.I. pipe	100 metre	3,851.23

18.75.8	350 mm diameter C.I. pipe	100 metre	4,239.87
18.75.9	400 mm diameter C.I. pipe	100 metre	4,644.68
18.75.10	450 mm diameter C.I. pipe	100 metre	5,054.60
18.75.11	500 mm diameter C.I. pipe	100 metre	5,484.01
18.75.12	600 mm diameter C.I. pipe	100 metre	6,350.37
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	100 metre	390.60
18.76.2	100 mm diameter C.I. pipe	100 metre	477.33
18.76.3	125 mm diameter C.I. pipe	100 metre	581.18
18.76.4	150 mm diameter C.I. pipe	100 metre	674.63
18.76.5	200 mm diameter C.I. pipe	100 metre	1,016.12
18.76.6	250 mm diameter C.I. pipe	100 metre	1,168.62
18.76.7	300 mm diameter C.I. pipe	100 metre	1,311.70
18.76.8	350 mm diameter C.I. pipe	100 metre	1,533.04
18.76.9	400 mm diameter C.I. pipe	100 metre	1,756.16
18.76.10	450 mm diameter C.I. pipe	100 metre	1,984.50
18.76.11	500 mm diameter C.I. pipe	100 metre	2,214.24
18.76.12	600 mm diameter C.I. pipe	100 metre	2,680.62
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	metre	229.11
18.77.2	100 mm diameter C.I. pipe	metre	238.56
18.77.3	125 mm diameter C.I. pipe	metre	247.38
18.77.4	150 mm diameter C.I. pipe	metre	256.34
18.77.5	200 mm diameter C.I. pipe	metre	285.46
18.77.6	250 mm diameter C.I. pipe	metre	313.67
18.77.7	300 mm diameter C.I. pipe	metre	339.15
18.77.8	350 mm diameter C.I. pipe	metre	363.37
18.77.9	400 mm diameter C.I. pipe	metre	385.56
18.77.10	450 mm diameter C.I. pipe	metre	408.31
18.77.11	500 mm diameter C.I. pipe	metre	428.33
18.77.12	600 mm diameter C.I. pipe	metre	463.51
18.78	Labour for cutting C.I. pipe with steel saw.		
18.78.1	80 mm diameter C.I. pipe	Each cut	83.93
18.78.2	100 mm diameter C.I. pipe	Each cut	112.49
18.78.3	125 mm diameter C.I. pipe	Each cut	156.00
18.78.4	150 mm diameter C.I. pipe	Each cut	211.33
18.78.5	200 mm diameter C.I. pipe	Each cut	281.86
18.78.6	250 mm diameter C.I. pipe	Each cut	350.60
18.78.7	300 mm diameter C.I. pipe	Each cut	421.12
18.78.8	350 mm diameter C.I. pipe	Each cut	489.83
18.78.9	400 mm diameter C.I. pipe	Each cut	560.11
18.78.10	450 mm diameter C.I. pipe	Each cut	629.09
18.78.11	500 mm diameter C.I. pipe	Each cut	699.37

18.78.12	600 mm diameter C.I. pipe	Each cut	835.00
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	each	5,635.35
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			
18.80.1	15.88 mm outer dia pipe	metre	246.51
18.80.2	22.22 mm outer dia Pipe	metre	354.69
18.80.3	28.58 mm outer dia Pipe	metre	414.02
18.80.4	34.00 mm outer dia Pipe	metre	541.38
18.80.5	42.70 mm outer dia Pipe	metre	551.99
18.80.6	48.60 mm outer dia Pipe	metre	719.18
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 .Pipes.	metre	366.21
18.81.2	22.22 mm Outer dia pipes	metre	474.43
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	each	56.21
18.82.2	For 22.22 mm outer dia pipe	each	65.56
18.82.3	For 28.58 mm outer dia pipe	each	90.16
18.82.4	For 34.00 mm outer dia pipe	each	126.42
18.82.5	For 42.70 mm outer dia pipe	each	149.84
18.82.6	For 48.60 mm outer dia pipe	each	168.60

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 direction of Engineer-in-charge.		
Reducer			
18.83.1	For 22.22 mm x 15.88 mm outer dia pipe	each	101.61
18.83.2	For 28.58 mm x 15.88 mm outer dia pipe	each	142.84
18.83.3	For 28.58 mm x 22.22 mm outer dia pipe	each	151.27
18.83.4	For 34.00 mm x 15.88 mm outer dia pipe	each	187.32
18.83.5	For 34.00 mm x 22.22 mm outer dia pipe	each	196.67
18.83.6	For 34.00 mm x 28.58 mm outer dia pipe	each	196.67
18.83.7	For 42.70 mm x 15.88 mm outer dia pipe	each	351.23
18.83.8	For 42.70 mm x 22.22 mm outer dia pipe	each	351.23
18.83.9	For 42.70 mm x 28.58 mm outer dia pipe	each	365.26
18.83.10	For 42.70 mm x 34.00 mm outer dia pipe	each	365.26
18.83.11	For 48.60 mm x 15.88 mm outer dia pipe	each	398.02
18.83.12	For 48.60 mm x 22.22 mm outer dia pipe	each	398.02
18.83.13	For 48.60 mm x 28.58 mm outer dia pipe	each	398.02
18.83.14	For 48.60 mm x 34.00 mm outer dia pipe	each	398.02
18.83.15	For 48.60 mm x 42.70 mm outer dia pipe	each	398.02
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	each	51.52
18.84.2	For 22.22 mm outer dia pipe	each	65.56
18.84.3	For 28.58 mm outer dia pipe	each	88.97
18.84.4	For 34.00 mm outer dia pipe	each	126.42
18.84.5	For 42.70 mm outer dia pipe	each	149.84
18.84.6	For 48.60 mm outer dia pipe	each	163.91
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	each	60.87
18.85.2	For 22.22 mm outer dia pipe	each	65.56
18.85.3	For 28.58 mm outer dia pipe	each	98.35
18.85.4	For 34.00 mm outer dia pipe	each	112.39
18.85.5	For 42.70 mm outer dia pipe	each	121.77
18.85.6	For 48.60 mm outer dia pipe	each	149.84

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	For 22.22 mm x 15.88 mm outer dia pipe	each	140.49
18.86.2	For 28.58 mm x 15.88 mm outer dia pipe	each	196.67
18.86.3	For 28.58 mm x 22.22 mm outer dia pipe	each	234.15
18.86.4	For 34.00 mm x 22.22 mm outer dia pipe	each	276.29
18.86.5	For 34.00 mm x 28.58 mm outer dia pipe	each	327.81
18.86.6	For 42.70 mm x 34.00 mm outer dia pipe	each	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	each	163.91
18.87.2	For 22.22 mm outer dia pipe	each	234.15
18.87.3	For 28.58 mm outer dia pipe	each	276.29
18.87.4	For 34.00 mm outer dia pipe	each	412.09
18.87.5	For 42.70 mm outer dia pipe	each	650.90
18.87.6	For 48.60 mm outer dia pipe	each	856.94
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	each	173.25
18.88.2	For 28.58 mm x 15.88 mm outer dia pipe	each	271.60
18.88.3	For 28.58 mm x 22.22 mm outer dia pipe	each	271.60
18.88.4	For 34.00 mm x 15.88 mm outer dia pipe	each	412.09
18.88.5	For 34.00 mm x 22.22 mm outer dia pipe	each	412.09
18.88.6	For 34.00 mm x 28.58 mm outer dia pipe	each	412.09
18.88.7	For 42.70 mm x 15.88 mm outer dia pipe	each	646.24
18.88.8	For 42.70 mm x 22.22 mm outer dia pipe	each	646.24
18.88.9	For 42.70 mm x 28.58 mm outer dia pipe	each	646.24
18.88.10	For 42.70 mm x 34.00 mm outer dia pipe	each	646.24
18.88.11	For 48.60 mm x 15.88 mm outer dia pipe	each	838.22
18.88.12	For 48.60 mm x 22.22 mm outer dia pipe	each	838.22
18.88.13	For 48.60 mm x 28.58 mm outer dia pipe	each	838.22
18.88.14	For 48.60 mm x 34.00 mm outer dia pipe	each	838.22
18.88.15	For 48.60 mm x 42.70 mm outer dia pipe	each	838.22
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	each	173.25
18.89.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	201.36
18.89.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	201.36
18.89.4	For 28.58 mm outer dia x 15 mm nominal dia threaded	each	276.29
18.89.5	For 28.58 mm outer dia x 20 mm nominal dia threaded	each	276.29
18.89.6	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	276.29
18.89.7	For 34.00 mm outer dia x 15 mm nominal dia threaded	each	435.51
18.89.8	For 34.00 mm outer dia x 20 mm nominal dia threaded	each	435.51
18.89.9	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	435.51
18.89.10	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	435.51
18.89.11	For 42.70 mm outer dia x 15 mm nominal dia threaded	each	664.97
18.89.12	For 42.70 mm outer dia x 20 mm nominal dia threaded	each	664.97
18.89.13	For 42.70 mm outer dia x 25 mm nominal dia threaded	each	664.97
18.89.14	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	664.97
18.89.15	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	664.97
18.89.16	For 48.60 mm outer dia x 15 mm nominal dia threaded	each	838.22
18.89.17	For 48.60 mm outer dia x 20 mm nominal dia threaded	each	838.22
18.89.18	For 48.60 mm outer dia x 25 mm nominal dia threaded	each	838.22
18.89.19	For 48.60 mm outer dia x 32 mm nominal dia threaded	each	838.22
18.89.20	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	838.22
18.89.21	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	838.22
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 x 15 mm nominal dia threaded	each	173.25
18.90.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	192.01
18.90.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	192.01
18.90.4	For 28.58 mm outer dia x 15 mm nominal dia threaded	each	257.57
18.90.5	For 28.58 mm outer dia x 20 mm nominal dia threaded	each	257.57
18.90.6	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	257.57
18.90.7	For 34.00 mm outer dia x 15 mm nominal dia threaded	each	416.78
18.90.8	For 34.00 mm outer dia x 20 mm nominal dia threaded	each	416.78
18.90.9	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	416.78
18.90.10	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	416.78
18.90.11	For 42.70 mm outer dia x 15 mm nominal dia threaded	each	655.59
18.90.12	For 42.70 mm outer dia x 20 mm nominal dia threaded	each	655.59
18.90.13	For 42.70 mm outer dia x 25 mm nominal dia threaded	each	655.59
18.90.14	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	655.59
18.90.15	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	655.59
18.90.16	For 48.60 mm outer dia x 15 mm nominal dia threaded	each	847.60
18.90.17	For 48.60 mm outer dia x 20 mm nominal dia threaded	each	847.60
18.90.18	For 48.60 mm outer dia x 25 mm nominal dia threaded	each	847.60
18.90.19	For 48.60 mm outer dia x 32 mm nominal dia threaded	each	847.60
18.90.20	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	847.60
18.90.21	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	847.60

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	each	182.63
18.91.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	215.425
18.91.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	224.77
18.91.4	For 28.58 mm outer dia x 15 mm nominal dia threaded	each	259.42
18.91.5	For 28.58 mm outer dia x 20 mm nominal dia threaded	each	271.6
18.91.6	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	332.465
18.91.7	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	383.985
18.91.8	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	505.75
18.91.9	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	557.235
18.91.10	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	650.895
18.91.11	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	791.385
18.91.12	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	913.15
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	each	182.63
18.92.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	215.425
18.92.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	238.805
18.92.4	For 28.58 mm outer dia x 20 mm nominal dia threaded	each	304.395
18.92.5	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	304.395
18.92.6	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	444.85
18.92.7	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	529.165
18.92.8	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	607.81
18.92.9	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	683.69
18.92.10	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	796.075
18.92.11	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	1067.675
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			
18.93.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	220.08
18.93.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	262.22
18.93.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	290.325
18.93.4	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	398.02
18.93.5	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	604.065
18.93.6	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	824.18
18.93.7	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	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	each	149.835
18.94.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	201.355
18.94.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	201.355
18.94.4	For 25.58 mm outer dia x 25 mm nominal dia threaded	each	201.355
18.94.5	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	276.29
18.94.6	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	449.54
18.94.7	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	449.54
18.94.8	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	664.97
18.94.9	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	664.97
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	each	182.63
18.95.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	210.74
18.95.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	210.74
18.95.4	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	210.74
18.95.5	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	271.60
18.95.6	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	271.60
18.95.7	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	449.54
18.95.8	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	449.54
18.95.9	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	650.90
18.95.10	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	650.90
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	each	44.94
18.96.2	For 22.22 mm outer dia pipe	each	65.56
18.96.3	For 28.58 mm outer dia pipe	each	84.28
18.96.4	For 34.00 mm outer dia pipe	each	163.91
18.96.5	For 42.70 mm outer dia pipe	each	234.15
18.96.6	For 48.60 mm outer dia pipe	each	304.40
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 Eng.-in-charge.		
Pipe Bridge			
18.97.1	For 15.88 mm outer dia pipe	each	206.05
18.97.2	For 22.22 mm outer dia pipe	each	271.60
18.97.3	For 28.58 mm outer dia pipe	each	388.68

<b>SUB HEAD : 19.0</b>			
<b>DRAINAGE</b>			
BASIC RATES (SH: 19.0 DRAINAGE)			
<b>Code No</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0101	Bhisti	day	714.00
0103	Blacksmith 2nd class	day	714.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0285	Brick Aggregate (Single size) : 63 mm nominal size	cum	650.00
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	650.00
0362	Brick bats	cum	450.00
0367	Portland Cement (OPC-43 grade)	tonne	5,000.00
0983	Fine sand (zone IV)	cum	900.00
1003	Mild steel round bar above 12 mm dia	quintal	4,750.00
1006	Mild steel square bars	quintal	4,850.00
1336	Clearing eye with chain and lid 100 mm dia	each	44.00
1337	Clearing eye with chain and lid 150 mm dia	each	50.00
1352	C.I. cover and frame 300x300 mm inside	each	480.00
1353	C.I. cover without frame 300x300 mm inside i/c cover of 4.50 kg	each	477.00
1354	Rectangular cover 455x610 mm with frame (low duty)	each	1,400.00
1355	Rectangular cover 455x610 mm without frame (low duty)	each	910.00
1356	500 mm dia cover with frame (medium duty)	each	4,400.00
1357	500 mm dia cover without frame (medium duty)	each	2,300.00
1364	C.I. grating 100x100 mm	each	40.00
1366	C.I. grating 150x150 mm	each	55.00
1367	C.I. grating 180x180 mm	each	65.00
1617	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100 mm dia	each	1,135.00
1618	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 150 mm dia	each	1,750.00
1621	S.C.I. plain bend 100 mm dia	each	280.00
1622	S.C.I. plain bend 150 mm dia	each	475.00
1628	S.C.I. plain single equal junctions 100x100x100 mm dia	each	405.00
1700	R.C.C. pipes NP2 class 100 mm dia	metre	210.00
1701	R.C.C. pipes NP2 class 150 mm dia	metre	220.00
1702	R.C.C. pipes NP2 class 250 mm dia	metre	365.00
1703	R.C.C. pipes NP2 class 300 mm dia	metre	450.00
1704	R.C.C. pipes NP2 class 450 mm dia	metre	775.00
1705	R.C.C. pipes NP2 class 500 mm dia	metre	950.00
1707	R.C.C. pipes NP2 class 700 mm dia	metre	1,500.00
1709	R.C.C. pipes NP2 class 800 mm dia	metre	1,825.00
1710	R.C.C. pipes NP2 class 900 mm dia	metre	2,550.00
1711	R.C.C. pipes NP2 class 1000 mm dia	metre	2,950.00
1712	R.C.C. pipes NP2 class 1100 mm dia	metre	3,250.00
1713	R.C.C. pipes NP2 class 1200 mm dia	metre	3,575.00

1714	R.C.C. collars NP2 class 100 mm dia	each	35.00
1715	R.C.C. collars NP2 class 150 mm dia	each	37.00
1716	R.C.C. collars NP2 class 250 mm dia	each	55.00
1717	R.C.C. collars NP2 class 300 mm dia	each	56.00
1718	R.C.C. collars NP2 class 450 mm dia	each	110.00
1719	R.C.C. collars NP2 class 500 mm dia	each	120.00
1721	R.C.C. collars NP2 class 700 mm dia	each	160.00
1723	R.C.C. collars NP2 class 800 mm dia	each	225.00
1724	R.C.C. collars NP2 class 900 mm dia	each	240.00
1725	R.C.C. collars NP2 class 1000 mm dia	each	295.00
1726	R.C.C. collars NP2 class 1100 mm dia	each	315.00
1727	R.C.C. collars NP2 class 1200 mm dia	each	375.00
1728	RCC pipe 450 mm dia NP-3 spigot	metre	1,500.00
1729	RCC pipe 600 mm dia NP-3 spigot	metre	2,000.00
1730	RCC pipe 900 mm dia NP-3 spigot	metre	3,175.00
1731	RCC pipe 1000 mm dia NP-3 spigot	metre	3,915.00
1732	RCC pipe 1200 mm dia NP-3 spigot	metre	5,200.00
1733	RCC pipe 1800 mm dia NP-3 spigot	metre	9,450.00
1734	RCC pipe 450 mm dia NP-4 spigot	metre	1,750.00
1735	RCC pipe 600 mm dia NP-4 spigot	metre	2,350.00
1736	RCC pipe 900 mm dia NP-4 spigot	metre	4,500.00
1737	RCC pipe 1000 mm dia NP-4 spigot	metre	5,570.00
1738	RCC pipe 1200 mm dia NP-4 spigot	metre	6,510.00
1739	RCC pipe 1800 mm dia NP-4 spigot	metre	13,650.00
1854	Stoneware pipes grade A (60 cm long) 100 mm dia	each	70.00
1855	Stoneware pipes grade A (60 cm long) 150 mm dia	each	125.00
1856	Stoneware pipes grade A (60 cm long) 200 mm dia	each	200.00
1858	Stoneware pipes grade A (60 cm long) 250 mm dia	each	350.00
1859	Stoneware pipes grade A (60 cm long) 300 mm dia	each	525.00
1881	Spun yarn	kilogram	55.00
1900	S.W. gully trap P type 100x100 mm	each	115.00
1902	S.W. gully trap P type 150x100 mm	each	155.00
1904	S.W. gully trap P type 180x150 mm	each	230.00
2201	Carriage of Bricks	1000 Nos	437.15
2209	Carriage of Cement	tonne	145.72
2224	Carriage of S.W. pipes 100 mm dia	100 metre	218.58
2225	Carriage of S.W. pipes 150 mm dia	100 metre	437.15
2226	Carriage of S.W. pipes 200 mm dia	100 metre	728.59
2228	Carriage of S.W. pipes 250 mm dia	100 metre	1,249.01
2229	Carriage of S.W. pipes 300 mm dia	100 metre	1,561.25
2260	Carriage of Brick aggregate	cum	178.19
2261	Carriage of Fine sand	cum	163.93
2275	Carriage of R.C.C. pipes 100 mm dia	100 metre	358.32
2281	Carriage of R.C.C. pipes 150 mm dia	100 metre	597.20
2287	Carriage of R.C.C. pipes 250 mm dia	100 metre	1,380.48
2290	Carriage of R.C.C. pipes 300 mm dia	100 metre	1,706.30
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	3,981.36
2303	Carriage of R.C.C. pipes 600,700,750 & 800 mm dia	100 metre	5,972.04
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	8,958.06
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	11,944.08

2333	Carriage of R.C.C. pipes 1100 mm dia	100 metre	11,944.08
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	11,944.08
2336	Carriage of R.C.C. pipe above 1200 mm dia and upto 1800 mm dia	100 metre	11,944.08
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5	1000 Nos	4,590.00
3860	560 mm dia cover with frame (Heavy duty)	each	9,100.00
3861	560 mm dia cover without frame (Heavy duty)	each	5,100.00
7087	S.C.I. Tee 150 mm	each	570.00
7128	S.W. intercepting trap 100 mm dia	each	185.00
7129	S.W. intercepting trap 150 mm dia	each	240.00
7130	Rectangular shape 600x450 mm precast R.C.C. manhole cover with frame - L.D. - 25	each	675.00
7131	Square shape 450x450 mm precast R.C.C. manhole cover with frame - L.D. - 25	each	575.00
7132	Circular shape 450 mm dia precast R.C.C. manhole cover with frame - L.D. - 25	each	575.00
7133	Rectangular shape 500x500 mm precast R.C.C. manhole cover with frame - M.D. - 10	each	670.00
7134	Circular shape 500 mm dia precast R.C.C. manhole cover with frame- M.D.-10	each	575.00
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	880.00
7136	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - E.H.D. - 35	each	1,170.00
7354	Plastic encapsulated M.S. foot rest 30x20x15 cm	each	110.00
7380	Precast R.C.C. grating with frame 500x450 mm horizontal grating	each	620.00
7381	Precast R.C.C. grating with frame 450x100 mm vertical grating	each	235.00
9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

## 19.0 DRAINAGE

NOTE : - The rates given for all the items under sub-head 'Drainage' are applicable to work executed in soils above sub- soil water level. Extra allowance has to be made for work under sub- soil water level.

Code	Description	Unit	Rate
<b>STONE WARE PIPES AND FITTINGS</b>			
19.1	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating		
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	each	1,717.49
19.1.1.2	With Sewer bricks conforming to IS : 4885	each	1,685.36
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	each	1,732.08
19.1.2.2	With sewer bricks conforming to IS : 4885	each	1,699.92
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	each	1,773.80
19.1.3.2	With Sewer bricks conforming to IS : 4885	each	1,741.67
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	metre	51.35
19.2.2	150 mm diameter	metre	56.77
19.2.3	200 mm diameter	metre	60.41
19.2.4	250 mm diameter	metre	64.02
19.2.5	300 mm diameter	metre	67.66
19.2.6	350 mm diameter	metre	77.91
19.2.7	400 mm diameter	metre	85.19
19.2.8	450 mm diameter	metre	88.80
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	metre	313.08
19.3.2	150 mm dia. R.C.C. pipe	metre	345.17
19.3.3	250 mm dia. R.C.C. pipe	metre	567.81
19.3.4	300 mm dia. R.C.C. pipe	metre	631.44
19.3.5	450 mm dia. R.C.C. pipe	metre	1,037.09
19.3.6	500 mm dia. R.C.C. pipe	metre	1,221.64
19.3.7	700 mm dia. R.C.C. pipe	metre	1,840.55
19.3.8	800 mm dia. R.C.C. pipe	metre	2,201.12
19.3.9	900 mm dia. R.C.C. pipe	metre	2,982.25
19.3.10	1000 mm dia. R.C.C. pipe	metre	3,504.90
19.3.11	1100 mm dia. R.C.C. pipe	metre	3,938.17
19.3.12	1200 mm dia. R.C.C. pipe	metre	4,434.08

19.4	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 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	each	8,180.97
19.4.1.2	With Sewer bricks conforming to IS : 4885	each	8,096.90
19.4.2	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) :		
19.4.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	17,084.13
19.4.2.2	With Sewer bricks conforming to IS : 4885	each	16,854.11
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	each	21,138.57
19.4.3.2	With Sewer bricks conforming to IS : 4885	each	20,940.71
19.5	Extra for depth for manholes :		
19.5.1	Size 90x80 cm		
19.5.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	5,689.22
19.5.1.2	With Sewer bricks conforming to IS : 4885	metre	5,444.39
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	metre	6,820.98
19.5.2.2	With Sewer bricks conforming to IS : 4885	metre	6,529.18



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 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 12mm thick cement plaster at the external surface shall be paid for		
19.6.1.1	With common burnt clay F.P.S. (non modular)		
	bricks of class designation 7.5	each	8,320.52
19.6.1.2	With Sewer bricks conforming to IS : 4885	each	8,166.83
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	metre	4,890.76
19.7.2	With Sewer bricks conforming IS : 4885	metre	4,685.77
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	each	16,066.37
19.8.1.2	With Sewer bricks conforming IS : 4885	each	15,724.73

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	metre	6,347.85
19.9.2	With Sewer bricks conforming IS : 4885	metre	6,080.27
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	each	34,435.10
19.10.1.2	With Sewer bricks conforming IS : 4885	each	33,479.78
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	metre	14,772.38
19.11.2	With Sewer bricks conforming IS : 4885	metre	14,080.43
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	each	322.95
19.12.2	With 20 mm diameter round bar	each	294.00

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.	nos	340.97
19.14	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):		
19.14.1	With 20x20 mm square bar	each	395.22
19.14.2	With 20 mm diameter round bar	each	366.28
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	each	938.95
19.15.2	500 mm diameter C.I. cover (medium duty) the weight of the cover to be not less than 58 kg	each	2,253.30
19.15.3	560 mm diameter C.I. cover (heavy duty) the weight of the cover to be not less than 108 kg	each	4,880.93
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	each	878.68
19.16.1.2	Square shape 450 mm internal dimensions	each	733.46
19.16.1.3	Circular shape 450 mm internal diameter	each	733.46
19.16.2	M D - 10		
19.16.2.1	Square shape 450 mm internal dimension	each	880.18
19.16.2.2	Circular shape 500 mm internal diameter	each	739.66
19.16.3	H D - 20		
19.16.3.1	Circular shape 560 mm internal diameter	each	1,045.94
19.16.4	EHD - 35		
19.16.4.1	Circular shape 560 mm internal dia	each	1,317.54
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	each	470.23

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	each	478.59
19.18.2	For pipes 250 to 300 mm diameter	each	550.13
19.18.3	For pipes 350 to 450 mm diameter	each	794.26
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 and specifications :		
19.19.1	100 mm dia sand cast iron drop connection	each	7,096.36
19.19.2	150 mm dia sand cast iron drop connection	each	9,652.83
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	metre	1,954.89
19.20.2	For 150 mm dia sand cast iron drop connection	metre	2,525.60
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, all as per direction of Engineer-in-Charge :		
19.21.1	Rectangular manhole 90x80 cm and 45 cm deep	each	1,467.27
19.21.2	Rectangular manhole 120x90 cm and 90 cm deep	each	2,583.77
19.21.3	Rectangular arch type manhole 140x90 cm and 2.45 m deep	each	4,887.79
19.21.4	Circular manhole 122 cm diameter and 1.68 m deep	each	3,737.27
19.22	Extra for depth of manholes dismantled :		
19.22.1	Rectangular manhole 90x80 cm and beyond 45 cm depth	metre	1,180.66
19.22.2	Rectangular manhole 120x90 cm and beyond 90 cm depth	metre	1,406.55
19.22.3	Rectangular arch type manhole 140x90 cm and beyond 2.45 m depth (up to 4.25 m depth)	metre	1,286.50
19.22.4	Circular manhole 122 cm diameter and beyond 1.68 m depth (up to 2.29 m depth)	metre	3,737.27

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	each	1,906.56
19.23.2	Rectangular manhole 120x90 cm with circular cover 500 mm dia of grade MD - 10	each	3,003.25
19.23.3	Rectangular manhole 120x90 cm with circular cover 560 mm dia of grade HD - 20	each	2,792.58
19.23.4	Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	each	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	each	3,912.62
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	each	4,380.74
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	each	7,417.87
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 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 coarse sand (Zone III) : 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	each	4,501.91

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	each	5,115.71
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	each	6,029.24
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	metre	3,948.53
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	metre	4,310.64
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	metre	5,024.01
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	each	19,620.41
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.	each	2,058.14
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	each	264.92
19.31.2	150 mm dia	each	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.	metre	1,669.85
19.32.2	600 mm dia RCC pipes.	metre	2,136.09
19.32.3	900 mm dia RCC pipes.	metre	3,375.16
19.32.4	1000 mm dia RCC pipes. (Laying by manual/ machanical means)	metre	4,186.07
19.32.5	1200 mm dia RCC pipes. (Laying by manual/ machanical means)	metre	5,682.99
19.32.6	1800 mm dia RCC pipes. (Laying by manual/ machanical means)	metre	10,004.93

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.	metre	1,904.00
19.33.2	600 mm dia RCC pipes.	metre	2,463.90
19.33.3	900 mm dia RCC pipes.	metre	4,616.08
19.33.4	1000 mm dia RCC pipes. (Laying by manual/ mechanical means)	metre	5,736.08
19.33.5	1200 mm dia RCC pipes. (Laying by manual/ mechanical means)	metre	6,909.88
19.33.6	1800 mm dia RCC pipes. (Laying by manual/ mechanical means)	metre	13,938.47

SUB HEAD : 20.0			
ALUMINIUM WORK			
BASIC RATES (SH: 20.0 ALUMINIUM WORK)			
Code No	Description	Unit	Rate
0100	Bandhani	day	714.00
0111	Carpenter 1st class	day	784.00
0112	Carpenter 2nd class	day	714.00
0114	Beldar	day	645.00
0116	Fitter (grade 1)	day	784.00
0119	Glazier	day	714.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0139	Skilled Beldar (for floor rubbing etc.)	day	714.00
0589	Chromium plated Brass screws 20 mm	100 Nos	160.00
0689	Anodised Aluminium butt hinges 100x75x4 mm	10 Nos	393.00
0992	Galvanised steel plain sheets	quintal	5,000.00
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10 kg/sqm)	sqm	309.00
2407	Float glass sheet of nominal thickness 5.5 mm (weight not less than 13.50 kg/sqm)	sqm	515.00
2408	Float glass sheet of nominal thickness 8 mm (weight not less than 20.00 kg/sqm)	sqm	628.00
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	543.00
2630	Baker rod	metre	6.00
2704	Aluminium Strip 40 mm wide and 2 mm thick	kg	240.00
7001	Brass 100mm mortice latch and lock with 6 levers without pair of handles	each	195.00
7019	Dash fastener/chemical fastener	each	12.50
7048	Rawl plug 50 mm (designation 10 nos)	each	22.00
7306	Aluminium T or L sections	kg	190.00
7347	Cadmium plated full threaded steel screws (30x4 mm dia)	100 Nos	27.00
7348	Aluminium washer 2 mm thick 15 mm dia	100 Nos	10.00
7388	Dash hold fastener 12.5 mm dia, 50 mm long with 6 mm dia bolt	each	10.00
7389	Anodising 15 microns on aluminium sections	kg	38.00
7390	EPDM Gasket for uPVC window/door	metre	15.00
7391	Anodising 25 microns on aluminium sections	kg	48.00
7392	Powder coating 50 microns on aluminium sections	kg	61.00
7393	Polyester powder coating 50 microns on aluminium sections	kg	67.00
7394	Double action hydraulic floor spring with stainless steel cover plate	each	1,500.00
7395	6 mm dia G.I. adjustable hangers including clips (up to 1.2 m length)	each	20.00



7396	Double action hydraulic floor spring with brass cover plate	each	1,620.00
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	500.00
7480	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	sqm	490.00
8646	Silicon sealant	cartridge	112.00
8647	Stainless steel screws 30 x 4 mm	100 Nos	35.84
8648	Hermetically sealed double glazed unit made with 6 mm thick clear float glass both side having 12 mm air gap	sqm	2,200.00
8649	Stainless steel (SS 304 grade) adjustable friction window stay 205 x 19 mm	each	197.80
8650	Stainless steel (SS 304 grade) adjustable friction window stay 255 x 19 mm	each	225.00
8651	Stainless steel (SS 304 grade) adjustable friction window stay 355 x 19 mm	each	195.00
8652	Stainless steel (SS 304 grade) adjustable friction window stay 510 x 19 mm	each	535.00
8653	Stainless steel (SS 304 grade) adjustable friction window stay 710 x 19 mm	each	925.00
8654	Masking tape	metre	2.18
8660	Aluminium casement window fastener (Anodised AC 15)	each	48.00
8661	Aluminium casement window fastener (powder coated )	each	52.64
8662	Aluminium casement window fastener (polyester powder coated)	each	51.52
8663	Aluminium round shape handle (anodised AC 15) outer dia 100mm	each	59.36
8664	Aluminium round shape handle (powder coated) outer dia 100 mm	each	60.00
8665	Aluminium round shape handle (polyester powder coated) outer dia 100 mm	each	62.00
8666	Stainless steel screws 25 x 4 mm	100 Nos	41.80
8774	Aluminium Grill	kg	279.00
8776	Stainless steel dash fastener of 8 mm dia and 75 mm long bolt	each	17.00
8778	Toughened glass 12 mm thickness	sqm	1,750.00
9977	Carriage	L.S.	2.12
9988	Carriage and sundries	L.S.	2.12
9999	Sundries	L.S.	2.12

<b>20.0 ALUMINIUM WORK</b>			
<b>Code</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
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)	kg	303.77
20.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	326.41
20.1.1.3	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	kg	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)	kg	372.26
20.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	395.36
20.1.2.3	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	kg	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	sqm	675.57
20.2.2	Pre-laminated particle board with decorative lamination on both sides	sqm	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	sqm	713.86
20.3.2	With float glass panes of 5.50 mm thickness	sqm	927.89
20.3.3	With float glass panes of 8 mm thickness	sqm	1,047.31
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	each	1,714.20
20.4.2	With brass cover plate minimum 1.25 mm thickness	each	1,826.58
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).	kg	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.	each	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-charge.		
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)	kg	422.31
20.7.2	Powder coated aluminium sheet 2.5mm thick (minimum thickness of powder coating 50 micron)	kg	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-		
20.8.1	Upto 5mm depth and 5 mm width	metre	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	kg	9.38
20.9.2	For shutters of doors, windows & ventilators	kg	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.	sqm	2,809.35
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	each	204.96
20.11.2	255 X 19 mm	each	230.44
20.11.3	355 X 19 mm	each	202.34
20.11.4	510 X 19 mm	each	520.77
20.11.5	710 X 19 mm	each	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	each	359.24

20.12.2	Powder coated minimum thickness 50 micron aluminium tubular handle bar	each	394.45
20.12.3	Polyester powder coated minimum thickness 50 micron aluminium tubular handle bar	each	403.62
20.13	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	each	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	kg	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	each	51.49
20.15.2	Powder coated minimum thickness 50 micron aluminium	each	55.83
20.15.3	Polyester powder coated minimum thickness 50 micron aluminium	each	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	each	62.13
20.16.2	Powder coated minimum thickness 50 micron aluminium	each	62.72
20.16.3	Polyester powder coated minimum thickness 50 micron aluminium	each	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. (Orequirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	kg	392.60

20.18	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).	sqm	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 & 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).	sqm	3,178.49
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	metre	91.14
20.20.2	Upto 10 mm depth and 10 mm width	metre	123.90
20.20.3	Upto 20 mm depth and 20 mm width	metre	224.18

<b>SUB HEAD : 21.0</b>			
<b>WATER PROOFING</b>			
BASIC RATES (SH : 21.0 WATER PROOFING)			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	day	800.00
0012	Vibrator (needle type 40 mm)	day	350.00
0101	Bhisti	day	714.00
0114	Beldar	day	645.00
0115	Coolie	day	645.00
0123	Mason (brick layer) 1st class	day	784.00
0124	Mason (brick layer) 2nd class	day	714.00
0125	Mason (for plain stone work) 2nd class	day	714.00
0128	Mate	day	714.00
0130	Mistry	day	784.00
0131	Painter	day	714.00
0155	Mason (average)	day	749.00
0159	Skilled torch operator for laying tack	day	784.00
0285	Brick Aggregate (single size) : 63 mm nominal size	cum	650.00
0295	Stone Aggregate (single size) : 20 mm nominal size	cum	1,400.00
0296	Stone Aggregate (single size) : 12.5 mm nominal size	cum	1,350.00
0297	Stone Aggregate (single size) : 10 mm nominal size	cum	1,350.00
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	34,790.00
0316	Bitumen solution primer of approved quality	litre	47.00
0318	Bitumen felt fibre base (vegetable or animal):As per IS 7193 Grade I	sqm	70.00
0319	Bitumen felt as per IS 7193 Grade-II	sqm	80.00
0322	Bitumen felt :Type 3 Grade I	sqm	70.00
0351	Integral crystalline slurry	kg	195.00
0352	Integral crystalline admixture	kg	230.00
0353	Crystalline Mortar	kg	190.00
0354	Integral crystalline dry shake	kg	280.00
0355	Swellable type water stop tape (Crystalline sealing compound)	metre	325.00
0356	Swellable type water stop primer	litre	1,300.00
0367	Portland Cement (OPC-43 Grade)	tonne	5,000.00
0370	Coal (steam)	quintal	440.00
0982	Coarse sand (zone III)	cum	1,500.00
1169	Kota stone slab 25mm thick (rough chiseled)	sqm	250.00
1177	Stone grit 6 mm and down size or pea sized gravel	cum	800.00
1213	Water proofing materials	kg	35.00
1241	Commercial LPG in cylinder	kg	84.00
2200	Carriage of Steam coal	tonne	187.35
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	163.93
2203	Carriage of coarse sand	cum	163.93
2209	Carriage of cement	tonne	145.72
2211	Carriage of Tar / Bitumen	tonne	163.93

2216	Carriage of stone blocks white & red sand stone & kota stone slab	tonne	145.72
2260	Carriage of brick aggregate	cum	178.19
3002	Polyvinyl chloride sheet 400 micron thick	sqm	45.00
7233	Fibre glass tissue reinforcement Type II Grade i	sqm	75.00
7427	Water stops serrated with central bulb (225 mm wide, 8-11 mm thick)	metre	200.00
7428	Water stops dumb bell with central bulb	metre	160.00
7429	Kickers	metre	160.00
8200	A.P.P. modified polymeric felt (two layers) 1.5 mm thick	sqm	80.00
8201	A.P.P. modified polymeric felt (two layers) 2 mm thick	sqm	120.00
8203	A.P.P. modified 2 mm thick membrane reinforced with glass fibre matt	sqm	130.00
8204	A.P.P. modified 3 mm thick membrane reinforced with glass fibre matt	sqm	190.00
8205	A.P.P. modified 3 mm thick membrane reinforced with polyester matt	sqm	210.00
8206	Bitumen primer for bitumen membrane	litre	85.00
8207	Geotextile 120 grams per sqm membrane	sqm	45.00
8501	Polymer modified cementation coating	kg	160.00
8502	Fibre glass cloth	sqm	32.00
8511	Fibre reinforced elastomeric liquid water proofing membrane	litre	230.00
8512	Cementitious water proofing coating with elastic polymers	kg	225.00
8513	Acrylic modified resin based texture	kg	42.00
9977	Carriage	L.S.	2.12
9999	Sundries	L.S.	2.12



## 21.0 WATER PROOFING

Code	Description	Unit	Rate
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)	1st 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 cu dm/sqm thoroughly embedded in the 2nd layer.		
21.1.1	Using rough kota stone.	sqm	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	sqm	1,246.21
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:	sqm	541.98
(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)	IIInd 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).		
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		
21.4.1	Serrated with central bulb (225 mm wide, 8-11 mm thick)	metre	199.92
21.4.2	Dumb bell with central bulb (180 mm wide, 8 mm thick)	metre	162.44
21.4.3	Kickers (320 mm wide, 5 mm thick)	metre	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 :	sqm	361.62
(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 pipes and masonry with polymer mixed slurry.		
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:	sqm	409.89
(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.		
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 65 mm.	sqm	1,066.07
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 peasized 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	sqm	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.	sqm	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 6cu.dm per sqm including preparation of surface, excluding grading, compete.	sqm	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.	sqm	541.77
21.12	Supplying and applying bituminous solution primer on roof and / or wall surface at 0.24 litre per sqm.	sqm	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	sqm	11.06
21.13.2	at 8 cudm per sqm	sqm	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 20 mm nominal size)	cum	5,257.53
21.14.2	Cement mortar 1:3 (1 cement : 3 coarse sand)	cum	9,993.03
21.14.3	Cement mortar 1:4 (1cement : 4 coarse sand)	cum	9,364.71

21.15	<p>Providing and laying in situ seven course water proofing treatment with APP (Atactic poly-propylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 Kg per sqm, 2nd, 4th &amp; 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 1.5 mm thick of 2.25 Kg/sqm weight consisting of five layers prefabricated with centre core as 20 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).</p>	sqm	512.93
21.16	<p>Providing and laying in situ five course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd &amp; 4th courses of bonding material @ 1.20 kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd layer of roofing membrane APP modified Polymeric membrane 2.0 mm thick of 3.00 Kg/ sqm weight consisting of five layers prefabricated with centre core as 100 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 5th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).</p>	sqm	318.36

21.17	Providing and laying in situ seven course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 Kg per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 2.0 mm thick of 3.00 Kg/sqm weight consisting of five layers prefabricated with centre core as 100 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).	sqm	512.93
21.18	Providing and fixing APP (Atactic Polypropylene Polymer) modified prefabricated five layer 2 mm thick water proofing membrance, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrance manufacture of density at 25°C, 0.87 - 0.89 kg/ litre and viscocity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using Butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/ 5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacture of membrane.		
21.18.1	2mm (for corrugated roof sheets)	sqm	312.06

21.19	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3 mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufactured of density at 25°C, 0.87 - 0.89 kg/litre and viscosity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :		
21.19.1	3 mm thick	sqm	373.87
21.20	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :		
21.20.1	3 mm thick	sqm	394.45
21.21	Extra for covering top of membrane with Geotextile, 120 gsm non woven, 100% polyester of thickness 1 to 1.25 mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.	sqm	72.45

21.22	<p>Providing and mixing integral crystalline admixture for waterproofing treatment to RCC structures like basement raft, retaining walls, reservoir, sewage &amp; 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.</p>	kg	232.68
21.22A	<p>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.</p>	sqm	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, reservoir, 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 guaranteed for 10 years against any leakage.		
21.23.1	For vertical surface two coats @0.70 kg per sqm per coat	sqm.	284.38
21.23.2	For horizontal surface one coat @1.10 kg per sqm.	sqm.	218.05
21.23A	Providing & Applying polymer modified, flexible cementitious 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 cementitious waterproofing polymer(dilution with water in the ratio of 1:1) and two coats of cementitious 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.	sqm	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.	sqm.	186.03
21.24A	Providing & Applying high quality acrylic modified resin based texture of Dholpur/Red sand stone Pattern with anti algae and U 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-Charge.	sqm	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 crystalline 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.		

21.25.1	For sealing cracks and faulty construction joints, by preparing the surface, making U-shape groove size of 25x25mm and then priming the surface with integral crystalline slurry @0.05kg per running meter and while the surface is tacky then filling the groove upto top edge with crystalline mortar @1.50kg per running meter. Once crystalline mortar is touch dry then finally applying two coats of integral crystalline slurry @0.05kg per running meter per coat on treated surface.	metre	328.76
21.25.2	For patching of tie rod holes, preparing tie rod hole surface and then priming the area with integral crystalline slurry @0.070kg per sqm and while the surface is tacky, repairing and then filling the tie rod holes with crystalline mortar @0.040kg per hole. The crystalline mortar shall be tightly rodded into tie rod holes or packed tightly (For 25x25x25 mm tie rod hole, use 0.040 kg to fill the hole)	each hole	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 guaranteed for 10 years against any leakage.	metre	346.78