

SCHEDULE 'B'						
NAME OF WORK: CONSTRUCTION OF NEW ADMINISTRATIVE OFFICE BUILDING AT KANDALA						
Sl. No.	Description	Qty.	Rate (₹)	Unit	Amount (₹)	Remarks
1.00	Supply of 11 kV compact GIS Panel- 5 module, for indoor application as per the technical specification No. 01	1		Each		
2.00	Installation, testing & commissioning of supplied 11 kV compact GIS Panel application as per the technical specification No. 02	1		Job		
3.00	Supply at site 3C X 150 mm <sup>2</sup> HT XLPE (U/E) cable as per the technical specification No. 03	950		RM		
4.00	Laying of HT cable from varoius route as per the technical specification No. 04					
4.01	Through HDD by putting 12" dia. heavy duty HDPE pipe of 10 kg/sq.cm	450		RM		
4.02	Through Hard / soft soil by putting 150 mm dia. RCC NP-2 half round pipe.	450		RM		
4.03	Through Trench & Tray	50		RM		
5.00	Supply, installation, testing and commissioning of 11 kV line with 100 mm <sup>2</sup> AAAC conductor (dog) with wind pressure 100 kg/m <sup>2</sup> on RSJ pole-11 m (span 30-35 m) as per the technical specification No. 05					
5.01	Supply	1800		RM		
5.02	Installation, testing and commissioning	1800		RM		
6.00	supply, installation, testing and commissioning of double pole structure with 11 kV A.B. switch & H.G.fuse on 11 m RSJ pole complete with labour and material as per the technical specification No. 06					
6.01	Supply	2		Each		
6.02	Installation, testing and commissioning	2		Each		
7.00	Supply, installation, testing and commissioning of guarding under HT line (avg. span of 25-30 m) as various areas as per the technical specification No. 07	500		RM		
8.00	Supply, installation, testing and commissioning of 11 kV outdoor end termination of 150 mm <sup>2</sup> XLPE HT cable as per the technical specification No. 08	10		Each		
9.00	supply, installation, testing and commissioning of 11 kV indoor end termination of 150 mm <sup>2</sup> XLPE HT cable as per the technical specification No. 09	8		Each		
10.00	Supply, installation, testing and commissioning of 11 kV straight through joint kit of 150 mm <sup>2</sup> XLPE HT cable as per the technical specification No. 10	8		Each		
11.00	Preperation of earth station for GIS panel, 80 mm dia. pipe in pipe, chemical treated back filled compund, GI type, 3 m depth, maintenance free as per the technical specification No. 13	3		Each		
12.00	Supply, installation, testing & commissioning of maintenance-free, heavy duty, chemical earthing having copper electrode of 17.2 mm dia., pipe dia. 50 mm as per the technical specification No. 14	20		Set		
13.00	Supply, laying, fixing including termination / connection of following type and size of GI earth strips as per the technical specification No. 15					
13.01	65 mm X 10 mm GI flat / strip	100		RM		
13.02	65 mm X 6 mm GI flat / strip	100		RM		
13.03	50 mm X 10 mm GI flat / strip	100		RM		
13.04	50 mm X 6 mm GI flat / strip	100		RM		
13.05	50 mm X 3 mm GI flat / strip	600		RM		
13.06	40 mm X 6 mm GI flat / strip	200		RM		
13.07	32 mm X 6 mm GI flat / strip	200		RM		
13.08	25 mm X 6 mm GI flat / strip	250		RM		
13.09	25 mm X 3 mm GI flat / strip	300		RM		
14.00	SITC of 1000 kVA, 11 / 0.433 kV level-3 transformer as per the Technical specification No. 16	2		Each		

Sl.	Description	Qty	Rate	Unit	Amount	Remarks
15.00	STIC of 1000 kVA, 3-Ph, oil-cooled industrial voltage stabilizers as per the Technical specification No. 17	1		Job		
16.00	Supply, installation, testing and commissioning of IP65 rated sandwich type (3L+N+PE) busbar trunking system complete with two runs of 50 mm X 6 mm aluminium earthing strip and accessories all as per the Technical specification No. 18					
16.01	1600 A fire rated straight length feeder / plug-in feeder with hanger support	40		RM		
16.02	Fire rated vertical / horizontal / offset / combination elbow	8		Each		
16.03	Flange end with shorting plate	4		Each		
16.04	Copper Flexible (Braided)	4		Each		
16.05	Adopter Box	2		Set		
16.06	Termination Links	4		Set		
17.00	Supply, installation, testing and commissioning of factory made, CPRI / ERDA type tested, fully compartmentalized bolted type <b>MLTP</b> as per the Technical specification No. 19	1		Job		
18.00	Supply, installation, testing and commissioning of free-standing indoor semi-compartmentalised cubical type <b>250 kVAr Hybric PFC Panel</b> (APFC + ASVG) as per the Technical specification No. 20	1		Job		
19.00	Supply, installation, testing and commissioning of factory made, CPRI / ERDA type tested, fully compartmentalized bolted type <b>LDB</b> as per the Technical specification No. 21	1		Job		
20.00	Supply, installation, testing and commissioning of factory made, CPRI / ERDA type tested, fully compartmentalized bolted type <b>PDB</b> as per the Technical specification No. 22	1		Job		
21.00	Supply, installation, testing and commissioning of factory made, CPRI / ERDA type tested, fully compartmentalized bolted type <b>UDB</b> as per the Technical specification No. 23	1		Job		
22.00	Supply, installation, testing and commissioning of factory made, CPRI / ERDA type tested, fully compartmentalized bolted type <b>ACDB</b> as per the Technical specification No. 24	1		Job		
23.00	Supply, installation, testing and commissioning of UL listed clean-agent fire suppression system as per the Technical specification No. 25					
23.01	Clean Agent Fire Supression System for Main LT Panel (MLTP)	1		Job		
23.02	Clean Agent Fire Supression System for HVAC Panel	1		Job		
23.03	Clean Agent Fire Supression System for Fire MCC	1		Job		
23.04	Clean Agent Fire Supression System for PDB	1		Job		
23.05	Clean Agent Fire Supression System for UDB	1		Job		
23.06	Clean Agent Fire Supression System for ACDB	1		Job		
23.07	Clean Agent Fire Supression System for LDB	1		Job		
23.08	Clean Agent Fire Supression System for Vertical Transportation DB	1		Job		
23.09	Clean Agent Fire Supression System for Water Supply MCC	1		Job		
23.10	Clean Agent Fire Supression System for 250 kVAr Hybrid PFC Panel	1		Job		
24.00	Supply, installation, testing and commissioning of silent LT Diesel GenSet of 750 kVA rating as per the Technical specification No. 26	1		Each		
25.00	Supply at site 1.1 kV grade fire survival cable as per the Technical specification No. 27					
25.01	3 core 6 mm <sup>2</sup> , 2XWY fire survival cable	150		RM		
25.02	3.5 core 25 mm <sup>2</sup> , 2XWY fire survival cable	200		RM		
25.03	3.5 core 35 mm <sup>2</sup> , 2XWY fire survival cable	100		RM		
26.00	Laying of 1.1 kV grade fire survival cable from various routes as per the Technical specification No. 27					
26.01	3 core 6 mm <sup>2</sup> , 2XWY fire survival cable	150		RM		
26.02	3.5 core 25 mm <sup>2</sup> , 2XWY fire survival cable	200		RM		
26.03	3.5 core 35 mm <sup>2</sup> , 2XWY fire survival cable	100		RM		
27.00	Supply at site 1.1 kV grade XLPE insulated armoured cable as per the Technical specification No. 28					
27.01	4 core 240 mm <sup>2</sup> , A2XWY cable	150		RM		
27.02	3.5 core 300 mm <sup>2</sup> , A2XWY cable	600		RM		
27.03	3.5 core 300 mm <sup>2</sup> , 2XWY cable	60		RM		

Sl.	Description	Qty	Rate	Unit	Amount	Remarks
27.04	3.5 core 25 mm <sup>2</sup> , A2XWY cable	300		RM		
27.05	3.5 core 95 mm <sup>2</sup> , 2XWY cable	60		RM		
27.06	3.5 core 6 mm <sup>2</sup> , 2XWY cable	120		RM		
27.07	3 core 50 mm <sup>2</sup> , 2XWY cable	150		RM		
27.08	3 core 16 mm <sup>2</sup> , 2XWY cable	40		RM		
27.09	3 core 10 mm <sup>2</sup> , 2XWY cable	20		RM		
28.00	Laying of 1.1 kV grade XLPE insulated armoured cable as per the Technical specification No. 28					
28.01	4 core 240 mm <sup>2</sup> , A2XWY cable	150		RM		
28.02	3.5 core 300 mm <sup>2</sup> , A2XWY cable	600		RM		
28.03	3.5 core 300 mm <sup>2</sup> , 2XWY cable	60		RM		
28.04	3.5 core 25 mm <sup>2</sup> , A2XWY cable	300		RM		
28.05	3.5 core 95 mm <sup>2</sup> , 2XWY cable	60		RM		
28.06	3.5 core 6 mm <sup>2</sup> , 2XWY cable	120		RM		
28.07	3 core 50 mm <sup>2</sup> , 2XWY cable	150		RM		
28.08	3 core 16 mm <sup>2</sup> , 2XWY cable	40		RM		
28.09	3 core 10 mm <sup>2</sup> , 2XWY cable	20		RM		
29.00	S & F perforated hot dipped galvanized iron cable tray as per the Technical specification No. 29					
29.01	300 mm X 50 mm X 1.6 mm cable tray	20		RM		
29.02	150 mm X 50 mm X 1.6 mm cable tray	20		RM		
29.03	100 mm X 50 mm X 1.6 mm cable tray	20		RM		
30.00	Supplying, installation, testing and commissioning of online double conversion fully microprocessor based, indoor type, compact UPS system of 10 kVA rating as per the Technical specification No. 30	1		Each		
31.00	Supplying, installation, testing and commissioning of online double conversion fully microprocessor based, indoor type, compact UPS system of 125 kVA rating as per the Technical specification No. 31	1		Each		
32.00	Supply, installation, testing and commissioning of vertical triple pole & neutral, double door metallic modular distribution board as per the Technical specification No. 32					
32.01	Vertical triple pole & neutral double door DB, 4 way	4		Each		
32.02	Vertical triple pole & neutral double door DB, 6 way	8		Each		
32.03	Vertical triple pole & neutral double door DB, 8 way	1		Each		
33.00	S & F triple pole & neutral double door, modular type, double door, per phase isolation metallic distribution board as per the Technical specification No. 33					
33.01	Triple pole & neutral double door PPI DB, 6 way	15		Each		
33.02	Triple pole & neutral double door PPI DB, 8 way	8		Each		
33.03	Triple pole & neutral double door PPI DB, 12 way	23		Each		
34.00	Supply, installation, testing and commissioning of moulded case circuit breaker (MCCB) as per the Technical specification No. 34					
34.01	125 A, 415V, 25 kA, 50 Hz 4P MCCB	3		Each		
34.02	63 A, 415V, 25 kA, 50 Hz 4P MCCB	10		Each		
35.00	Supply, installation, testing and commissioning of MCB for AC applications as per the Technical specification No. 35					
35.01	10 A, 230 V, 50 Hz, 1P MCB (C curve)	465		Each		
35.02	16 A, 230 V, 50 Hz, 1P MCB (C curve)	497		Each		
35.03	25 A, 230 V, 50 Hz, 1P MCB (C curve)	16		Each		
35.04	16 A, 230 V, 50 Hz, 1P MCB (D curve)	330		Each		
35.05	32 A, 415 V, 50 Hz, 3P MCB (C curve)	36		Each		
35.06	32 A, 230 V, 50 Hz, 1P MCB (D curve)	12		Each		
35.07	63 A, 415 V, 50 Hz, 3P MCB (C curve)	24		Each		
35.08	40 A, 415 V, 50 Hz, 3P MCB (D curve)	10		Each		
36.00	Supply, installation, testing and commissioning of residual current device (RCD) as per the Technical specification No. 36					
36.01	40 A, 30 mA. 230 V, 50 Hz RCCB	36		Each		48
36.02	40 A, 100 mA. 230 V, 50 Hz RCCB	48		Each		
36.03	63 A, 100 mA. 230 V, 50 Hz RCCB	36		Each		
37.00	M & L for submain wiring as per the Technical specification No. 37					
37.01	2 X 2.5 mm <sup>2</sup> + 1 X 2.5 mm <sup>2</sup> earth wire	250		RM		
37.02	2 X 4.0 mm <sup>2</sup> + 1 X 4.0 mm <sup>2</sup> earth wire	600		RM		
37.03	4 X 4.0 mm <sup>2</sup> + 1 X 4.0 mm <sup>2</sup> earth wire	270		RM		
37.04	4 X 6.0 mm <sup>2</sup> + 1 X 6.0 mm <sup>2</sup> earth wire	2360		RM		
38.00	M & L for point wiring as per the Technical specification No. 38					

Sl.	Description	Qty	Rate	Unit	Amount	Remarks
38.01	One light point controlled by one switch, with cables 1.5 mm <sup>2</sup> size	277		Point		
38.02	One additional light point on the same switch, with cables 1.5 mm <sup>2</sup> size	347		Point		
38.03	One light point controlled by two 2-way switches, with cables 1.5 mm <sup>2</sup> size	14		Point		
38.04	One 6 A socket outlet, on the same board with other switches, with cables 1.5 mm <sup>2</sup> size	160		Point		
38.05	One 6 A socket outlet, independent, with cables 1.5 mm <sup>2</sup> size	2621		Point		
38.06	One 6/16 A socket outlet, independent, with cables 2.5 mm <sup>2</sup> size	290		Point		
38.07	One 25 / 32 A socket outlet, independent, with cables 4 mm <sup>2</sup> size	16		Point		
39.00	S & F modular type 6 A 1-way SP switch as per the Technical specification No. 39	3405		Each		
40.00	S & F modular type 6 A 2-way SP switch as per the Technical specification No. 40	14		Each		
41.00	S & F modular type 16 A 1-way SP switch as per the Technical specification No. 41	290		Each		
42.00	S & F modular type 2/3 pin combined shuttered type 6 A socket as per the Technical specification No. 42	2781		Each		
43.00	S & F modular type 3 pin combined shuttered type 6/16 A socket as per the Technical specification No. 43	290		Each		
44.00	S & F 3 pin, 6 A, 250 V ceiling rose as per the Technical specification No. 44	250		Each		
45.00	S & F factory made screwless, dust proof cover plates as per the Technical specification No. 45					
45.01	1 module cover plate	277		Each		
45.02	2 module cover plate	377		Each		
45.03	3 module cover plate	177		Each		
45.04	4 module cover plate	377		Each		
45.05	6 module cover plate	200		Each		
45.06	8 module cover plate	150		Each		
46.00	S & F factory made modular flush sheet galvanized metal enclosure as per the Technical specification No. 46					
46.01	1 / 2 module GI enclosure	654		Each		
46.02	3 module GI enclosure	177		Each		
46.03	4 module GI enclosure	377		Each		
46.04	6 module GI enclosure	200		Each		
46.05	8 module GI enclosure	150		Each		
47.00	S & F factory 32 A 2P + E DP plug & socket DB as per the Technical specification No. 47	16		Each		
48.00	SURFACE-MOUNTED DOWNLIGHT (2000 lm) as per the Technical specification No. 48					
	S & F of CE certified & RoHS compliant surface-mounted downlight in circular form-factor having LED light source with integral driver, luminous flux ≥ 2000 lm (luminous flux tolerance ±10%), rated luminous efficacy ≥ 110 lm/W, power consumption ≤ 18 W (power consumption tolerance ±10%), initial corrected colour temperature (CCT) 6500K, colour rendering index (CRI) ≥ 80, SDCM < 5, power factor ≥ 0.95, median useful life L70B50 ≥ 30000 hrs, surge protection level ≥ 2.5 kV, etc. with aluminium pressure die cast housing, polycarbonate diffuser, mounting bracket, IP20 & IK02 protection, EMI / EMC (B1) compliant, and suitable for 220- 240 V input voltage, 50 Hz line frequency, ambient temperature range 0 to 45 °C, safety class I and fixture height ≤ 60 mm along with all necessary accessories complete all as specified and directed by the engineer-in-charge.					
	<b>NOTES:</b>					
	[i] The contractor shall furnish an LM80 report issued by the OEM and LM79 report from an NABL accredited laboratory.					
48.01	Supply of surface-mounted downlight (2000 lm)	140		Each		
48.02	Labour for surface-mounted downlight (2000 lm)	140		Each		
49.00	RECESSED DOWNLIGHT (2000 lm, 18W) as per the Technical specification No. 49					

Sl.	Description	Qty	Rate	Unit	Amount	Remarks
	S & F of CE certified & RoHS compliant surface mounted downlight in circular form-factor having LED light source with non-integral fixed output driver, luminous flux $\geq 2000$ lm (luminous flux tolerance $\pm 10\%$ ), rated luminous efficacy $\geq 110$ lm/W, power consumption $\leq 18$ W (power consumption tolerance $\pm 10\%$ ), initial corrected colour temperature (CCT) 6500K, colour rendering index (CRI) $\geq 80$ , SDCM $< 5$ , THD(i) $< 10\%$ , Power Factor $\geq 0.95$ , median useful life L70B50 @ Ta = 45 °C $\geq 50000$ hrs, surge protection level $\geq 2.5$ kV with pressure die cast aluminium housing, polycarbonate diffuser & steel clip (spring), IP20 & IK02 protection, EMI / EMC (B1) compliant, and suitable for 130- 320 V input voltage, 50 Hz line frequency, ambient temperature range 0 to 45 °C, class B serviceability, ceiling cutout dia. $\leq 6"$ (150mm) and fixture height $\leq 40$ mm along with all necessary accessories complete all as specified and directed by the engineer-in-charge.					
	<b>NOTES:</b>					
	[i] The contractor shall furnish an LM80 report issued by the OEM and LM79 report from an NABL accredited laboratory.					
49.01	Supply of recessed downlight (2000 lm)	1000		Each		
49.02	Labour for recessed downlight (2000 lm)	1000		Each		
50.00	RECESSED DOWNLIGHT (1500 lm, 13.4W) as per the Technical specification No. 50					
	S & F of CE certified & RoHS compliant surface mounted downlight in circular form-factor having LED light source with non-integral fixed output driver, luminous flux $\geq 1500$ lm (luminous flux tolerance $\pm 10\%$ ), rated luminous efficacy $\geq 110$ lm/W, power consumption $\leq 13.4$ W (power consumption tolerance $\pm 10\%$ ), initial corrected colour temperature (CCT) 6500K, colour rendering index (CRI) $\geq 80$ , SDCM $< 5$ , THD(i) $< 10\%$ , Power Factor $\geq 0.95$ , median useful life L70B50 @ Ta = 45 °C $\geq 50000$ hrs, surge protection level $\geq 2.5$ kV with pressure die cast aluminium housing, polycarbonate diffuser & steel clip (spring), IP20 & IK02 protection, EMI / EMC (B1) compliant, and suitable for 130- 320 V input voltage, 50 Hz line frequency, ambient temperature range 0 to 45 °C, class B serviceability, ceiling cutout dia. $\leq 6"$ (150mm) and fixture height $\leq 40$ mm along with all necessary accessories complete all as specified and directed by the engineer-in-charge.					
	<b>NOTES:</b>					
	[i] The contractor shall furnish an LM80 report issued by the OEM and LM79 report from an NABL accredited laboratory.					
50.01	Supply of recessed downlight (1500 lm)	346		Each		
50.02	Labour for recessed downlight (1500 lm)	346		Each		
51.00	RECESSED DOWNLIGHT (1200 lm, 11W) as per the Technical specification No. 51					
	S & F of CE certified & RoHS compliant surface mounted downlight in circular form-factor having LED light source with non-integral fixed output driver, luminous flux $\geq 1200$ lm (luminous flux tolerance $\pm 10\%$ ), rated luminous efficacy $\geq 110$ lm/W, power consumption $\leq 11$ W (power consumption tolerance $\pm 10\%$ ), initial corrected colour temperature (CCT) 6500K, colour rendering index (CRI) $\geq 80$ , SDCM $< 5$ , THD(i) $< 10\%$ , Power Factor $\geq 0.95$ , median useful life L70B50 @ Ta = 45 °C $\geq 50000$ hrs, surge protection level $\geq 2.5$ kV with pressure die cast aluminium housing, polycarbonate diffuser & steel clip (spring), IP20 & IK02 protection, EMI / EMC (B1) compliant, and suitable for 130- 320 V input voltage, 50 Hz line frequency, ambient temperature range 0 to 45 °C, class B serviceability, ceiling cutout dia. $\leq 6"$ (150mm) and fixture height $\leq 40$ mm along with all necessary accessories complete all as specified and directed by the engineer-in-charge.					
	<b>NOTES:</b>					
	[i] The contractor shall furnish an LM80 report issued by the OEM and LM79 report from an NABL accredited laboratory.					
51.01	Supply of recessed downlight (1200 lm)	197		Each		
51.02	Labour for recessed downlight (1200 lm)	197		Each		
52.00	SUSPENDED LINEAR LIGHTING LUMINAIRE (2200 lm, 18 W) as per the Technical specification No. 52					

Sl.	Description	Qty	Rate	Unit	Amount	Remarks
	S & F of suspended linear lighting luminaire having LED light source with integral driver, luminous flux $\geq 2200$ lm (luminous flux tolerance $\pm 10\%$ ), rated luminous efficacy $\geq 120$ lm/W, power consumption $\leq 18$ W (power consumption tolerance $\pm 10\%$ ), initial corrected colour temperature (CCT) 4000K, colour rendering index (CRI) $\geq 80$ , SDCM $< 5$ , power factor $\geq 0.95$ , median useful life L70B50 $\geq 50000$ hrs, surge protection level $\geq 4$ kV, etc. with aluminium extruded housing with superior white powder coated finish, flat polycarbonate optical cover, mounting device (suspension set simple, standard), IP20 & IK02 protection, EMI / EMC (B1) compliant, and suitable for 220- 240 V input voltage, 50 Hz line frequency, ambient temperature range 0 to 45 °C, safety class I and fixture dimensions (L X W X H) 1126 X 53 mm X 70 mm along with all necessary accessories complete all as specified and directed by the engineer-in-charge.					
	<b>NOTES:</b>					
	[i] The contractor shall furnish an LM80 report issued by the OEM and LM79 report from an NABL accredited laboratory.					
52.01	Supply of suspended linear lighting luminaire (2200 lm, 18 W)	107		Each		
52.02	Labour for suspended linear lighting luminaire (2200 lm, 18 W)	107		Each		
53.00	2' X 2' PANEL (3600 lm, 30W) as per the Technical specification No. 53					
	S & F of recessed 2' X 2' panel fixture with integral fixed output driver having LED light source engine, 120° luminaire light beam spread, luminous flux $\geq 3600$ lm, rated luminous efficacy $\geq 120$ lm/W, power consumption $\leq 30$ W (power consumption tolerance $\pm 10\%$ ), initial corrected colour temperature (CCT) 6500K, colour rendering index (CRI) $> 80$ , SDCM $< 5$ , power factor $\geq 0.90$ , median useful life L70B50 $\geq 50000$ hrs, surge protection level $\geq 4$ kV with steel housing and polystyrene optical cover, square recessed mounting box, IP20 & IK02 protection, EMI / EMC (B1) compliant, and suitable for 220- 240 V input voltage, 50 Hz line frequency, ambient temperature range 0 to 45 °C, class B serviceability, dimensions (H X W X D) 35 x 595 x 595 mm, along with all necessary accessories complete all as specified and directed by the engineer-in-charge.					
	<b>NOTES:</b>					
	[i] The contractor shall furnish an LM80 report issued by the OEM and LM79 report from an NABL accredited laboratory.					
53.01	Supply of 2' x 2' Panel (3600 lm, 30 W)					
53.02	Labour for 2' x 2' Panel (3600 lm, 30 W)	34		Each		
54.00	2' X 2' PANEL (4000 lm, 32W) as per the Technical specification No. 54	34		Each		
	S & F of recessed 2' X 2' panel fixture having LED light source with integral driver, luminous flux $\geq 4000$ lm, rated luminous efficacy $\geq 125$ lm/W, power consumption $\leq 32$ W, power consumption tolerance $\pm 10\%$ , initial corrected colour temperature (CCT) 6500K, colour rendering index (CRI) $> 80$ , SDCM $< 4$ , power factor $\geq 0.9$ , median useful life L70B50 $\geq 50000$ hrs, etc. with metal housing, polycarbonate optical cover, IP20 & IK03 protection, EMI / EMC (B1) compliant, and suitable for 140- 270 V input voltage, 50 Hz line frequency, ambient temperature range -20 to 40 °C, class B serviceability, dimensions (L X W X H) 597 mm X 597 mm X 69.7 mm along with all necessary accessories complete all as specified and directed by the engineer-in-charge.					
	<b>NOTES:</b>					
	[i] The contractor shall furnish an LM80 report issued by the OEM and LM79 report from an NABL accredited laboratory.					
54.01	Labour for 2' x 2' Panel (4000 lm, 32 W)	329		Each		
54.02	2' X 2' PANEL (4000 lm, 32W)	329		Each		
55.00	4' WATER-PROOF LED BATTEN as per the Technical specification No. 55					

Sl.	Description	Qty	Rate	Unit	Amount	Remarks
	S & F of 4' waterproof surface mounted / suspended batten having LED light source engine delivering full window illumination, integral fixed output driver, SY120° / diffused light distribution, luminous flux $\geq 4400$ lm, luminous efficacy $\geq 120$ lm/W, power consumption $\leq 37$ W, power consumption tolerance $\pm 10\%$ , initial corrected colour temperature (CCT) 6500K, colour rendering index (CRI) $\geq 80$ , SDCM $< 5$ , THD $< 20\%$ , power factor $> 0.85$ , median useful life L70B50 @ Ta = 45 °C $\geq 30000$ hrs, surge protection level $\geq 2.5$ kV with polycarbonate co-extrusion housing, high transmittance PC diffuser, IP65 & IK08 protection, BIS approbation & RoHS sustainability compliance and suitable for 140- 270 V input voltage, 50 Hz line frequency, ambient temperature range -10 to 45 °C, class B serviceability, along with Click Fix mounting bracket and all necessary accessories complete all as specified and directed by the engineer-in-charge.					
	<b>NOTES:</b>					
	[i] The contractor shall furnish an LM80 report issued by the OEM and LM79 report from an NABL accredited laboratory.					
55.01	Supply of 4' waterproof LED batten	5		Each		
55.02	Labour for 4' waterproof LED batten	5		Each		
56.00	ACCENT LIGHT (4000 lm, 40W) as per the Technical specification No. 56					
	S & F of recessed accent light having LED light source with driver, 36° beam angle of light source, luminous flux $\geq 4000$ lm, rated luminous efficacy $\geq 100$ lm/W, power consumption $\leq 42$ W (power consumption tolerance $\pm 10\%$ ), initial corrected colour temperature (CCT) 4000K, colour rendering index (CRI) $\geq 80$ , power factor (fraction) $\geq 0.9$ , median useful life L70B50 $\geq 40000$ hrs, surge protection level $\geq 2.5$ kV with aluminium alloy housing, polycarbonate optical cover, adjustable mounting bracket, IP20 & IK02 protection, EMI / EMC (B1) compliant, and suitable for 240 V input voltage, 50 Hz line frequency, ambient temperature range 0 to 45 °C, class B serviceability, ceiling cutout dia. $\leq 8"$ (200 mm) and fixture height $\leq 150$ mm along with all necessary accessories complete all as specified and directed by the engineer-in-charge.					
	<b>NOTES:</b>					
	[i] The contractor shall furnish an LM80 report issued by the OEM and LM79 report from an NABL accredited laboratory.					
56.01	Supply of LED accent light (4000 lm, 40W)	6		Each		
56.02	Labour for LED accent light (4000 lm, 40W)	6		Each		
57.00	2' X 2' SUSPENDED LUMINAIRE (3800 lm, 44W) as per the Technical specification No. 57					
	S & F of 2' X 2' luminaire suitable for suspended mounting, having LED light source with integral driver, luminous flux $\geq 3800$ lm, rated luminous efficacy $\geq 90$ lm/W, power consumption $\leq 44$ W (power consumption tolerance $\pm 10\%$ ), initial corrected colour temperature (CCT) 6500K, colour rendering index (CRI) $\geq 80$ , SDCM $< 5$ , power factor $\geq 0.95$ , median useful life L70B50 $\geq 50000$ hrs, surge protection level $\geq 2.5$ kV, etc., with steel housing, polycarbonate optical cover, mounting device (recessed mounting box square), IP20 & IK02 protection, EMI / EMC (B1) compliant, and suitable for 120-277 V input voltage, 50 Hz line frequency, ambient temperature range 0 to 45 °C, safety class I along with all necessary accessories complete all as specified and directed by the engineer-in-charge.					
	<b>NOTES:</b>					
	[i] The contractor shall furnish an LM80 report issued by the OEM and LM79 report from an NABL accredited laboratory.					
57.01	Supply of 2' X 2' suspended luminaire (3800 lm, 44W)	15		Each		
57.02	Labour for 2' X 2' suspended luminaire (3800 lm, 44W)	15		Each		
58.00	MIRROR LIGHT as per the Technical specification No. 58					
	S & F of water-proof wall light (mirror / bathroom light) having built-in water-resistant LED light source, luminous flux $\geq 450$ lm, lifetime up to 15000 hrs, power consumption $\leq 8$ W, IP44 protection (Class of Protection II double protection), with electrical connection complete all as specified and directed by engineer-in-charge.					
58.01	Supply of mirror light	100		Each		

Sl.	Description	Qty	Rate	Unit	Amount	Remarks
58.02	Labour for of mirror light	100		Each		
59.00	EMERGENCY EXIT SIGN as per the Technical specification No. 59					
	S & F of emergency exit sign having 3 hrs duration, LED light source engine with luminaire light beam spread 55°, upward light output ratio 0.01, luminous flux 85 lm, luminous efficacy $\geq 32$ lm/W, luminous flux tolerance $\pm 5\%$ , initial chromaticity $\leq 0.33$ , colour rendering index (CRI) $> 80$ , initial colour rendering index tolerance $\pm 2\%$ , corrected colour temperature 6500 K, standard tilt angle post top 0°, standard tilt angle side entry 0°, power factor 0.4, internal control interface (no external connection), suitable for input voltage 220-240 V at line frequency 50 Hz having initial / average / end CLO power consumption 4 W, inrush current 4 A, inrush time 100 ms, power consumption 4 W, 2 Push-in connector 3-pole connection, lithium battery (LiFePO4) suitable for 4 W power consumption during central DC emergency mode, 85 lm emergency lux, polycarbonate housing, UV stabilized polycarbonate optic cover, having overall dimensions 30 X 186 X 330 mm (H X W X D) complete all as specified and directed by the engineer-in-charge.					
59.01	Supply of emergency exit sign	63		Each		
59.02	Labour for of emergency exit sign	63		Each		
60.00	PROFILE LIGHT as per the Technical specification No. 60					
	S & F of recessed linear lighting luminaire having LED light source with integral driver, luminous flux $\geq 1800$ lm (luminous flux tolerance $\pm 10\%$ ), rated luminous efficacy $\geq 80$ lm/W, power consumption $\leq 24$ W, initial corrected colour temperature (CCT) 4000K, colour rendering index (CRI) $\geq 80$ , SDCM $< 5$ , power factor $\geq 0.90$ , THD $< 10\%$ , UGR $< 19$ , median useful life L70B50 $\geq 50000$ hrs, surge protection level $\geq 4$ kV, etc. with aluminium extruded housing, round- 24° / square 50° wall-washers, gun-metal / black colour reflector, IP20 protection, EMI / EMC (B1) compliant, and suitable for 220- 240 V input voltage, 50 Hz line frequency, ambient temperature range 0 to 45 °C, safety class I and fixture dimensions (L X W X H) 1060 X 55 mm X 64 mm along with all necessary accessories complete all as specified and directed by the engineer-in-charge.					
60.01	Supply of profile light	2		Each		
60.02	Labour for profile light	2		Each		
61.00	BOLLARD LIGHT as per the Technical specification No. 61					
	Supply, Installation Testing and Commissioning of symmetrical 360 Degree LED bollard luminaire Power consumption 9W, CCT : 3000K & CRI $\geq 70$ . Luminaire should be BIS certified and CRS no for luminaire along with LM79 report from NABL accredited LAB should be should be submitted along with BID.					
61.01	Supply of bollard light	66		Each		
61.02	Labour for of bollard light	66		Each		
62.00	STEP LIGHT as per the Technical specification No. 62					
	Supply, Installation, Testing and Commissioning of integral driver LED step light with a system lumen output of 35 lumens and a minimum system efficacy of 10 lm/W. The luminaire shall have a rated system lifetime of 25,000 burning hours at L70. The luminaire should have a color temperature of 4000K and CRI $> 75$ . The luminaire shall meet IP67 rating with THD $< 20\%$ and PF $> 0.9$ . The luminaire shall have polycarbonate diffuser. The total power consumption should not exceed 4W (including driver).					
62.01	Supply of LED step light	264		Each		
62.02	Labour for of LED step light	264		Each		
63.00	OCTAGONAL POLES as per the Technical specification No. 63					
	M & L for GI octagonal poles complete with single arm brackets as specified all for 6 m long with 70 mm top diameter and 130 mm bottom diameter, made of 3 mm thick tensile sheet along with base plate of size 225 X 225 X 12 mm thick, including 04 Nos. of M24 X 750 long 'J' type foundation bolts, MCB with 4-way heavy duty connector 32 A, double arm bracket and RCC foundation as per manufacturer's drawing(s) complete as specified and directed by engineer-in-charge.					
	NOTES:					



Sl.	Description	Qty	Rate	Unit	Amount	Remarks
	[i] The foundation drawings shall be vetted by the Civil Engineering Dept. before the execution of the work.					
63.01	Supply of GI octagonal pole	50		Each		
63.02	Labour for of GI octagonal pole	50		Each		
64.00	LED STREET LIGHT as per the Technical specification No. 64					
	S & F 60 W LED street light having high efficiency long life LED module with SMD LED package mounted on MCPCB with high LED efficacy of > 120 lumen/W, integral SMPS based constant current electronic LED driver with THD < 10%, surge voltage protection and other safety tests as per IS: 15885 (Part-2/Sec-13): 2012, IP 66 protection, high efficiency polycarbonate cover with integrated lens housed in pressure die-cast aluminium alloy heat sink for effective thermal management, sturdiness, excellent corrosion resistance, separate optical and control gear compartment & top opening for easy maintenance, suitable for side entry, pole mounting with bracket arm OD 35 mm to 42 mm including necessary electrical connection to the fixture with 3 core flexible Cu conductor cable of appropriate size complete as all specified and directed by engineer- in- charge.					
64.01	Supply of street light	50		Each		
64.02	Labour for of street light	50		Each		
65.00	OCCUPANCY SENSOR as per the Technical specification No. 65					
	Supply, installation, testing and commissioning of movement detector suitable for mounting height of 2.5- 4 m and detection radius of 3m and has features of adjusting daylight, holdtime and detecting angle delivering up to 30% energy savings, with a built-in switch to control an area of between 20- 25 m <sup>2</sup> and switching load up to 6 A, having a smart timer to extend the delay time by 10 minutes if movement is detected shortly after switch-off, retractable shield to shield of areas, detachable mains, etc., mounted in the ceiling complete with all mounting accessories as specified and directed by the engineer-in-charge.					
65.01	Supply of occupancy sensor	260		Each		
65.02	Labour for of occupancy sensor	260		Each		
66.00	MOTION SENSOR as per the Technical specification No. 66					
	Supply, installation, testing and commissioning of Motion Detector Wired, Ceiling recess mount Sensor, Maximum detection range: 5.0m Detection Area: 7.4m x 5.6m rectangular (at a height of 2.5m), Dimensions: H 41 mm x D 72 mm. complete with all mounting accessories as specified and directed by the engineer-in-charge.					
66.01	Supply of motion sensor	90		Each		
66.02	Labour for of motion sensor	90		Each		
<b>Total of Amount : Rs.</b>						
Rupees _____						

**Note :-** Rate quoted by the firm shall be included taxes , duties , all incidental charges but Excluded Goods & Services Tax (GST).

**Signature & Seal of Contractor**

**Executive Engineer (Electrical)  
Deendayal Port Authority**