No:1951/21/NK/ TVPM

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INVITATION OF TENDER -(8)

District Nirmithi Kendra invites Competitive Tenders from authorized Suppliers/Individual in the form attached herewith for the work of **Electrification at TSCCC Building Thiruvananthapuram.**

Sl. No.	PARTICULARS	QTY	UNIT
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVCinsulated copper conductor single core cable in surface / recessed medium class PVC conduit,with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLSPVC insulated copper conductor single core cable etc as required.Group C	32	point
2	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.	1	point
3	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required2x1.5 sq.mm + 1x1.5 sq.mm earth wire	500	m
4	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required2X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	1080	m
5	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required4 X 6 sq. mm + 2 X 6 sq. mm earth wire	35	m
6	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium	40	m

NIRMITHI KENDRA
KUDAPPANAKUNNU P.O, THIRUVANANTHAPURAM-43
B BLOCK, 4th FLOOR, CIVIL STATION

	class PVC conduit as required4 X 10 sq. mm + 2 X 6 sq. mm earth wire		
7	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.20 mm	150	m
8	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.25 mm	100	m
9	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.32 mm	50	m
10	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor,unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.2 Pair	125	m
11	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.Telephone socket outlet	25	each
12	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or inrecess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 ampsmodular switch, connection etc. as required. (For light plugs to be used in non residentialbuildings).	14	each
13	Supplying and fixing metal box of 180mm X 100mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 5/6 & 15/16 amps socket outlet and 15/16 amps piano type switch, connection, painting etc. as required.	14	nos
14	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/ wooden blockincluding connection etc as required	13	each
15	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.Group C	61	point
16	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providng and fixing 2 Nos. 3 pin 5/6 A modular socket	61	each

	outlets and 2 Nos. 5/6 A modular switches, connection etc. as required. (For light plugs to be used in non residential buildings).		
17	Supplying and fixing 30 amps, 415 volts, TPN industrial type, socket outlet, with 4 pole and earth,metal enclosed plug top alongwith 30 amps "C" curve, TPMCB, in sheet steel enclosure, onsurface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	9	each
18	Supplying and fixing 20 amps 415volts, TPN industrial type, socket outlet, with 4 pole and earth, metal enclosed plug top along with 20 amps "C" curve, TPMCB, in sheet enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required	4	each
19	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	1	each
20	Supply, conveyance and fixing the following types & current rated control gears & switchgears conforming to IS 13947 suitable for 440 V, 50 Hz, AC supply in the existing panel assembly as required.125A, 35/36 kA (Ics=100%Icu), 4 pole, current limiting type MCCB with microprocessor based release with overload setting of 50 - 100% having adjustable OL & SC	2	nos
21	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.Single pole	58	each
22	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.Triple pole	22	each
23	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required	14	each
24	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	4	each
25	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.63 amps	2	each

26	Supplying and fixing Cable End Box (Loose Wire Box) (IP 43) suitable for tripple pole and neutral, sheet steel, Vertical MCB distribution board, 415 V, on surface/ recess, complete with testing and commissioning etc. as required.	4	each
27	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.63 amps	2	each
28	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	3	each
29	Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	1	each
30	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt) as required.	4	set
31	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required6 way (8+18) - three phase double cover (IP 42/43)	4	each
32	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required8 way (8+24) - double cover TPN vertical DB with provision for fixing MCCB as incomer and SP/ TP MCB as outgoing (IP 42/43)	2	each
33	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on	2	each

	wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required6 way (8+18) - double cover TPN vertical DB with provision for fixing 4P MCB / Isolator/ RCCB/ RCBO as incomer and SP/ TP MCB as outgoing (IP 42/43)		
34	Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in ground including excavation of trench of size 35 x 75 cm, refilling the trench etc. as required but excluding sand cushioning and protective covering (in ordinary soil).3.5 core 300 sq mm	65	mtr
35	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 300 sq mm	10	mtr
36	Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in ground including excavation of trench of size 35 x 75 cm, refilling the trench etc. as required but excluding sand cushioning and protective covering (in ordinary soil).3.5 core 120 sq mm	120	mtr
37	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 35 sq mm with factory made clamp	10	mtr
38	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 70 sq mm.	15	mtr
39	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 150 sq mm	15	mtr
40	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps	16	mtr

	not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 120 sq mm		
41	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 6 sq mm with factory made clamp	45	mtr
42	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 10 sq mm with factory made clamp	120	Mtr
43	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 16 sq mm with factory made clamp	90	mtr
44	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 25 sq mm with factory made clamp	35	mtr
45	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 35 sq mm with factory made clamp	100	mtr
46	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 70 sq mm	30	mtr
47	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable,	100	mtr

	1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 6 sq mm with factory made clamp		
48	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 4 sq mm with factory made clamp	50	mtr
49	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.3 1/2X 35 sq. mm (32mm)	2	set
50	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.3 1/2X 70 sq. mm (38mm)	2	set
51	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVc and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.3 1/2X 70 sq. mm (45mm)	4	set
52	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.3 1/2 X 150 sq. mm (50mm)	2	set
53	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.4 X 10 sq. mm (25mm)	10	set
54	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.4 X 16 sq. mm (28mm)	8	set
55	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE	4	set

	aluminium conductor cable of 1.1 KV grade as required.4 X 25 sq. mm (28mm)		
56	Supplying and making end termination with brass compression gland and copper lugs for following size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1 kV grade as required. 4 X 35 sq. mm	6	set
57	Supply and making Termination with Brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1kV grade as required 4X70 sq mm	4	set
58	Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving connection as required3.15 mm copper conductor (10 SWG)	250	mtr
59	Supply and clamping the following size of strips on surface of wall/ parapet/ existing cable tray using clamps fabricated from 20 X 3 mm GI flat duly painted or heavy duty GI spacer saddles spacing of clamps not exceeding 1 m, making good the damages, colour washing etc. as required (for horizontal run) 25x3 mm copper strip	140	mtr
60	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earthelectrode, including connection/ terminating with nut, bolt, spring, washer etc. as required.(Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	50	mtr
61	Supply and clamping the following sizes of strips on surface of wall / parapet/ existing cable tray using clamps fabricated from 20 x3 mm GI flat duly painted or heavy duty GI spacer saddles, spacing of clamps not exceeding 1 m , making good the damages, colour washing etc. as required (for vertical run).25 x 3 mm copper strip	20	mtr
62	Supply of superior quality copper earth socket for the following size of earth conductor including crimping etc. as required.3.15 mm (10 SWG)	40	each
63	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined	75	mtr

	with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.450 mm width X 62.5 mm depth X 2.0 mm thicknessICDDescriptionUnit		
64	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.600 mm width X 62.5 mm depth X 2.0 mm thickness	10	mtr
65	Supplying and installing following size of perforated Hot Dipped Galvanised Ironcable tray "bends " (galvanisation not less than 50 microns) with perforation notmore than 17.5%, in convenient sections, joined with connectors, suspended fromthe ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required.450 mm width X 62.5 mm depth X 2.0 mm thickness	8	no
66	Supplying and installing following size of perforated Hot Dipped Galvanised Ironcable tray "bends " (galvanisation not less than 50 microns) with perforation notmore than 17.5%, in convenient sections, joined with connectors, suspended fromthe ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required.600 mm width X 62.5 mm depth X 2.0 mm thickness	2	no
67	Supplying and installing following size of perforated Hot Dipped Galvanised Ironcable tray "Tee" (galvanisation not less than 50 microns) with perforation not morethan 17.5%, in convenient sections, joined with connectors, suspended from theceiling with G.I. suspenders including G.I. bolts & nuts, etc as required.450 mm width X 62.5 mm depth X 2.0 mm thickness	2	no
68	Supply and installation of Integral, SMD LED, IP40, 40W Surface/Suspended Mounted LED Batten with system efficacy of more than 100 lm/W. LED luminaire shall have sleek design with Extruded Aluminu Section. The luminaire shall have High Optically Efficient Polycarbonate Diffuser for Uniform illumination and wider light distribution. Screw less Design ensures ease of maintenance. LM 80-08 compliant LEDs from reputed makes should be provided. LEDs used in the	11	each

	product shall comply with EN 62471 for Photobiological safety and certificate for the same from manufacturer shall be provided. Luminaire manufacturer shall produce certificate of association with LED manufacturer for minimum five years. The LED shall be compliant with LM80-08 standard with Useful L70 life of 50000 Hrs tested at maximum current (Complete LM 80 test report for LED should be submitted for 10000 hrs of testing). The LEDs used should be with CCT of 5700 K and CRI of Minimum 80. LED Driver shall be Isolated type, Constant Current topology driver with proper heat sink for heat dissipation suitable to operate in input voltage range of 150V to 270V (nominal rated voltage – 240V) with 3 KV internal surge protection, Power factor greater than 0.95 and total harmonic distortion (THD) of less than 10% should be integral to the luminaire. Compliance to Indian Standards of IS10322 Part 5 / Sect 1:1967; 16105 : 2012; IS 16106 : 2012; IS 15885 (Part2/Sec13) : 2012; IS 16108 : 2012 Wipro Model No. LL24-541-XXX-57-XX or equivalent from Philips/ Jaquar		
69	Supply and installation of 35W, High efficient suspended LED Housing made up of extruded Aluminum powder coated and non-yellowing PMMA diffuser. Aesthetic slim profile in ring type with edge lit concept for contemporary interiors. Revolutionary disc of light with horizontal plane creates circle of light. CRI>80, IP20, Ambient temp-0 to 45 Deg C, CCT - 4000K, 50,000 hrs @ L70 life. Driver efficiency>85%, THD<15%, Power factor>0.95, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 150-270V AC and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. Luminaire lumen 2625 lm. (75 lm/W) Wipro make :LM230R-621-XX57-XW or equivalent in Philips /Jaquar	1	each
70	Supply and installation of 18W, High efficient deep inset recess mounted LED round downlighter with white powder coated, pressure die cast aluminium housing. High transmittivity PS diffuser provides soft light. CRI>80, IP20, Ambient temp-0 to 45DegC, CCT - 4000/5700K, 50,000 hrs @ L70 life.Driver efficiency>85%, THD<10%, Power factor>0.9, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 90-	60	each

	265V AC and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. Wipro make: LD06X-221-XX-57-XX or equivalent		
71	with white powder coated, pressure die cast aluminium housing. High transmittivity PS diffuser provides soft light. CRI>80, IP20, Ambient temp-0 to 45DegC, CCT - 4000/5700K, 50,000 hrs @ L70 life. Driver efficiency>85%, THD<10%, Power factor>0.9, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 90-265V AC and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. Wipro make: LD06-171-XXX-57-XX or equivalent in philips/ havells	6	each
72	Supply and installation of LED suspended downlighter should have white powder coated pressure die cast aluminium housing and bottom frame , lumen output greater than 1000 lm and maximum system wattage of 10W including separate CC,CV APFC driver with surge protection of 2 kV. LM 80-08 compliant, ANSI rated LEDs from reputed makes should be provided. The LEDs used in luminaire should be ANSI standard Rated LED with CCT of 4000 K +/- 500K and CRI of Minimum 70. LEDs used must be tested as per EN62471 for photo biological safety of humans. Isolated type, multistage constant current Constant Voltage topology driver suitable to operate in input voltage range of 150V to 270V (nominal rated voltage – 240V) with driver efficiency greater than 85 %. LED tube should have THD < 10%, power factor > 0.9, system efficacy of lamp greater than 100 lumen/watt and including all necessary accessories as required complete.	2	each
73	Supply and installation of IP65 rated LED Bulkhead fitting with aluminium diecast housing with powder coated ,Polycarbonate opal diffuser,High quality silicon gasket for IP65 Protection,Ambient temp-0 to 45 DegC,LED with 50000 burning hours as per L70 Criteria, CRI>70, color temperature- 5700K, , Complete assembly with LED, Driver and accessories pre wired up to terminal block Driver With efficiency>85%, THD<10%, Power factor>0.95, Surge protection in CM-2KV, Multistage Isolated Constant Current-Constant Voltage Operated driver with range 150-270V AC and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. 10W LED Bulkhead luminaire delivering > 720lm, similar to WIPRO make :	10	each

	LW07-141-XXX- 57-G1 or equivalent in Philips/ Jaquar.		
74	Supply installation testing and commissioning of unitised substation (outdoor type) having 200KVA, 11KV/433V, 3 phase, outdoor type, vector DYN-11 transformer with off circuit tappings from +5% to -10% in steps of 2.5%, changeable on off circuit by tap links provided, with WTI & LV terminals included MCCB 2 runs of PVCA cable and HV terminals connected to 11 KV, 26.3 KA, 630 A Load Break Switch, with incoming suitable for XLPE cable, with HT HRC fuses,3 Nos CTs, 1 No PT, provision for fixing TOD Meter and output connected to 11KV seal off bushings to the transformer with an outer enclosure for outdoor use.	1	each
75	Supply & fixing of 8mm solid aluminium round conductor with necessary holders @ required interval as specified below: Meets the requirement of (IS/IEC 62305) : semi-hard (E-AlMgSiO5)with 50 sq.mm cross sectional area. Govt approved Indian labs test certificate required. Terrace Conductor Fibre Reinforce Concrete Holder @ every 1 meters	30	mtr
76	Supply & fixing of 8mm solid aluminium round conductor with necessary holders @ required interval as specified below: Meets the requirement of (IS/IEC 62305) : semi-hard (E-AlMgSiO5)with 50 sq.mm cross sectional area. Govt approved Indian labs test certificate required. Parapet Holder made of weather resistant plastic @ every 0.4 meters	70	mtr
77	Providing and fixing of Stainless Steel Test Joint suitable with suitable Outdoor Enclosure: For 8mm dia solid round aluminium conductor & 10mm dia copper coated solid steel round conductor having 100 microns of copper bonding (if pure copper conductor 25x3 mm solid tape also can be used). Conforms to the requirements according to (IS/IEC 62305).The enclosure should be outdoor glass-fibre reinforced polycarbonate opaque having minimum inner dimension of 75mm x 75 mm x 50 mm. The test link has to be straight and needs minimum 4 mounting screws for strong joints. Inspection of bimetallic corrosion at site required. Single bolt joints are not permitted. Govt approved Indian labs test certificate required.	8	Each
78	Supply & fixing of 8mm solid aluminium round conductor with necessary holders @ required interval as	60	mtr

	specified below: Meets the requirement of (IS/IEC 62305) : semi-hard (E-AlMgSiO5)with 50 sq.mm cross sectional area. Govt approved Indian labs test certificate required. Down Conductor Holder made of weather resistant plastic @ every 0.8 meters		
79	Providing and laying copper coated steel solid round conductor 10mm diameter from earth electrode directly in ground as required. copper coated steel, high corrosion resistant (if pure copper conductor 25x3mm solid tape can also be used). Meets the requirement of (IS/IEC 62305) copper coating thickness of 100microns tape can also be used). Meets the requirement of (IS/IEC 62305) copper coating thickness of 100microns Should be tested and use exclusively for lightning protection earthing system and ring equipotential bonding. After test link needs to be routed inside Heavy duty conduit to avoid touch potential till ground level. Govt approved Indian labs test certificate required.	110	mtr
80	Supply and fixing Fully Solid Vertical Air terminals as per IS/IEC -62305 part-3,16mm rod tapered to 10 mm aluminium rod meter rod Meets the requirement (IS/IEC 62305) Semi-hard (E-AlMgSiO5) Suitable for high wind load. All air terminal must have Interception Tip at the Top of air terminal. System consist of Fang Fix with base and clamp on the top air terminal is erected. Air terminal Joining Clip Stainless Steel SS 304 clamp made of cable bracket, lightning tested for 100 KA 10/350 micro sec waveform.Stainless Steel Wall Clamp/16 KG stone of 365 mm diameter, high level of stability. No of stones/wall clamps depending on wind load. Quick and easy mounting of interception rod using anchors. Concrete, frostresistant, can be stacked. Govt approved Indian labs test certificate required. 2 meter air terminal with necessary mounting accessories Make: Cape/OBO/Erico	2	set
81	99.9% purity on low carbon steel of 3m length , having a diameter of 20mm with copper bonding thickness of 250 microns with self-coupling peg & bore arrangement with fault current withstand capability of 30 KA rms value for 1 second and I peak of 76 KA. Exothermic welded Clamp for clamping as	6	each

	suggested as per NBC 2016. Impact point on the bottom rod for easy insertion. Earth enhancing mineral compound is used for improving the soil conductivity. The material shall be mineral inert to sub soil and shall not pollute the environment and non corrosive to earth rod. The material should have a resistivity less than 0.2 m. It should be free from hazardous substances. The mineral compound is required to have minimum 30 Kg of the total composite. The compound should be chemically inert and needs to submit Govt approved Indian labs test certificate. Concrete Earth electrode inspection chamber with heavy duty cover should be used to cover the Earth Rod. The dimension shall be 320mmx 320mmx 190mm with a weight bearing capacity of 50KN. Govt approved Indian labs test certificate required. Make: Cape / Erico / Furse		
82	Supply and Installation of 12KV Ring Main Unit, Outdoor Type with enclosure, Rated short time withstand(main and earth) 20 kA 3 seconds, 630A continuos,rated current, Normal ambient temperature - 25 °C to + 40 °C, IP 67 Rated High voltage live parts, SF6 tank, 300 mm2 three core or 500 mm2 single core maximum cable size, fuses confirming to IEC 60282-1, DIN 43625,	1	each
83	supply, installation, testing and commissioning of 200 kVA(160kW), Diesel Generating Set with CPCBII approved acoustic enclosure comprising of Radiator Cooled Diesel engine having 1500 RPM, complete with standard accessories. Coupled to "Stamford" Alternator rated at 160KW/200 KVA at 415 Volts mounted on Channel Iron Base Frame complete with Fuel Tank, Control Panel and Batteries with battery charger.	1	each
84	and vermin proof, cubicle type MV panel board comprising of the following components/ devices & complying to IS 8623. Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar	1	Each set

	chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabricationofpanelassembly.(UtilityPanel) INCOMER:63ATPN ISOLATOR OUTGOINGS: 40A TP MCB - 2 Nos 32A TP MCB - 2 Nos 25A TP MCB - 2 Nos		
85	Fabrication, supply, conveyance, installation testing and commissioning of floor or wall mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices & complying to IS 8623. Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly.(UPS Panel) INCOMER: 200A FP MCCB OUTGOINGS: 125A TP MCCB - 3 Nos 63A TP MCCB - 2Nos	1	Each set
86	and vermin proof, cubicle type MV panel board comprising of the following components/ devices & complying to IS 8623. Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/	1	Each set

	flats/ slotted angles etc shall not be used for the fabricationofpanelassembly.(ACPanel) INCOMER:100ATPN ISOLATOR OUTGOINGS: 63A TP MCB - 3 Nos 40A TP MCB - 3Nos		
87	Supply installation testing and commissioning of 80 KVAr APFC panel with block reactors. The voltage rating of the Power Factor correction requirement shall be at 440 Volts between phases. The total KVAR shall be divided into automatically switched steps of suitable rating. The no. of switching stages shall be designed appropriately in steps of 20*2,15*1, 10*1& 5*3 for 150 KVAr. Individual Capacitors shall be of 3 phase construction in design using Heavy Duty Polypropylene as a dielectric with vaccum deposited conductors on the polypropylene as electrodes.Dielectric material shall be low loss, less than 0.3 watts per KVAr. The controller should be fully automatic, intelligent microprocessor based relay operated offering minimum 8 stage. The enclosure shall be made from 14/16 gauge CRCA sheet steel. Seven tank process shall be carried out for treating the sheet metal. 	1	Each set
88	Fabrication, supply, conveyance, installation testing and commissioning of floor mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices & complying to IS 8623. Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly. The panel must be compatible with BMS system.(MSB Panel) INCOMER: 320A,50KA, 4P MCCB with E/F - 2 nos 325A 4P CONTACTOR-2no AMF relay with interlock- 1 no 51G relay- 1	1	Each set

	no OUTGOINGS: 125A ,25KA, TP, MCCB - 2nos 100A , 25KA, TP, MCCB - 2 nos 200A FP MCCB - 2nos 200A TP MCCB - 1no		

2)Bid Price

a) The contract shall be for the full quantity as described above. Corrections if any shall be made by crossing out re-writing with initial and date.

b) The rate should be all inclusive of taxes, levies, transports etc. Usual deduction of taxes will be made from the gross amount of bill.

c) The rate quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.

d) The price should be quoted in Indian rupees only.

3) Each bidder shall submit only one tender.

4) Validity of tender

.Tender shall remain valid for a period not less than 45 days after the dead line date specified for submission

5) Evaluation of tender

The purchaser will evaluate and compare the tenders determined to be substantially responsive ie which

a) Are properly signed

b) Confirm to the terms and conditions and specification.

6) Award of Contract

a) The purchaser will award the contract to the bidder whose tenders has been determined to be substantially responsive and who has offered the lowest evaluated tender price

b) Not with standing above, the purchaser reserves the right toaccept or reject anytenders and to cancel the bidding process and reject all tenders at anytime prior to the award of the contract

c) The bidder whose bid is accepted will be notified of the award of the contract by the purchaser prior to expiration of the tender validity period. The terms of the accepted offer shall be incorporated in the purchase order.

7) The amount will be released after verification of the material in physical, quality and receipt of invoice in this office according to the availability of funds. Individual or authorized dealers/agents are only eligible.

8) You are requested to provide your offer latest by 12 hours on **25.11.2021** and the Tenders will be opened at **25.11.2021**

We look forward to receiving your tenders and thank for your interest in this work.

Project Manager

NIRMITHI KENDRA
KUDUMBASREE P.O.
THIRUVANANTHAPURAM-43
B BLOCK, 4 th FLOOR, CIVIL STATION

Format of Tender

Sl. No.	PARTICULARS	QTY	UNIT	RATE	AMOUNT
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVCinsulated copper conductor single core cable in surface / recessed medium class PVC conduit,with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLSPVC insulated copper conductor single core cable etc as required.Group C	32	point		
2	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.	1	point		
3	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required2x1.5 sq.mm + 1x1.5 sq.mm earth wire	500	m		
4	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required2X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	1080	m		
5	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required4 X 6 sq. mm + 2 X 6 sq. mm earth wire	35	m		
6	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required4 X 10 sq. mm + 2 X 6 sq. mm earth wire	40	m		
7	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.20 mm	150	m		

8	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.25 mm	100	m		
9	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.32 mm	50	m		
10	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor,unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.2 Pair	125	m		
11	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.Telephone socket outlet	25	each		
12	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or inrecess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 ampsmodular switch, connection etc. as required. (For light plugs to be used in non residentialbuildings).	14	each		
13	Supplying and fixing metal box of 180mm X 100mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 5/6 & 15/16 amps socket outlet and 15/16 amps piano type switch, connection, painting etc. as required.	14	nos		
14	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/ wooden blockincluding connection etc as required	13	each		
15	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.Group C	61	point		
16	Supplying and fixing suitable size Gl box with modular plate and cover in front on surface or in recess, including providng and fixing 2 Nos. 3 pin 5/6 A modular socket outlets and 2 Nos. 5/6 A modular switches, connection etc. as required. (For light plugs to be used in non residential buildings).	61	each		
17	Supplying and fixing 30 amps, 415 volts, TPN industrial type, socket outlet, with 4 pole and	9	each		

	earth,metal enclosed plug top alongwith 30 amps "C" curve, TPMCB, in sheet steel enclosure, onsurface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.				
18	Supplying and fixing 20 amps 415volts, TPN industrial type, socket outlet, with 4 pole and earth, metal enclosed plug top along with 20 amps "C" curve, TPMCB, in sheet enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required	4	each		
19	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	1	each		
20	Supply, conveyance and fixing the following types & current rated control gears & switchgears conforming to IS 13947 suitable for 440 V, 50 Hz, AC supply in the existing panel assembly as required.125A, 35/36 kA (Ics=100%Icu), 4 pole, current limiting type MCCB with microprocessor based release with overload setting of 50 - 100% having adjustable OL & SC	2	nos		
21	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.Single pole	58	each		
22	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.Triple pole	22	each		
23	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required	14	each		
24	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	4	each		
25	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.63 amps	2	each		

26	Supplying and fixing Cable End Box (Loose Wire Box) (IP 43) suitable for tripple pole and neutral, sheet steel, Vertical MCB distribution board, 415 V, on surface/ recess, complete with testing and commissioning etc. as required.	4	each		
27	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.63 amps	2	each		
28	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	3	each		
29	Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	1	each		
30	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt) as required.	4	set		
31	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required6 way (8+18) - three phase double cover (IP 42/43)	4	each		
32	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required8 way (8+24) - double cover TPN vertical DB with provision for fixing MCCB as incomer and SP/ TP MCB as outgoing (IP 42/43)	2	each		
33	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus	2	each		

	and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required6 way (8+18) - double cover TPN vertical DB with provision for fixing 4P MCB / Isolator/ RCCB/ RCBO as incomer and SP/ TP MCB as outgoing (IP 42/43)				
34	Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in ground including excavation of trench of size 35 x 75 cm, refilling the trench etc. as required but excluding sand cushioning and protective covering (in ordinary soil).3.5 core 300 sq mm	65	mtr		
35	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 300 sq mm	10	mtr		
36	Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in ground including excavation of trench of size 35 x 75 cm, refilling the trench etc. as required but excluding sand cushioning and protective covering (in ordinary soil).3.5 core 120 sq mm	120	mtr		
37	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 35 sq mm with factory made clamp	10	mtr		
38	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 70 sq mm.	15	mtr		
39	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 150 sq mm	15	mtr		

40	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.3.5 core 120 sq mm	16	mtr		
41	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 6 sq mm with factory made clamp	45	mtr		
42	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 10 sq mm with factory made clamp	120	Mtr		
43	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 16 sq mm with factory made clamp	90	mtr		
44	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 25 sq mm with factory made clamp	35	mtr		
45	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 35 sq mm with factory made clamp	100	mtr		
46	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not	30	mtr		

	exceeding 60cms, making good the damages , colour washing etc. as required.4 core 70 sq mm				
47	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 6 sq mm with factory made clamp	100	mtr		
48	Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured copper power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.4 core 4 sq mm with factory made clamp	50	mtr		
49	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.3 1/2X 35 sq. mm (32mm)	2	set		
50	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.3 1/2X 70 sq. mm (38mm)	2	set		
51	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVc and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.3 1/2X 70 sq. mm (45mm)	4	set		
52	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.3 1/2 X 150 sq. mm (50mm)	2	set		
53	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.4 X 10 sq. mm (25mm)	10	set		
54	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as	8	set		

	required.4 X 16 sq. mm (28mm)				
55	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.4 X 25 sq. mm (28mm)	4	set		
56	Supplying and making end termination with brass compression gland and copper lugs for following size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1 kV grade as required. 4 X 35 sq. mm	6	set		
57	Supply and making Termination with Brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1kV grade as required 4X70 sq mm	4	set		
58	Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving connection as required3.15 mm copper conductor (10 SWG)	250	mtr		
59	Supply and clamping the following size of strips on surface of wall/ parapet/ existing cable tray using clamps fabricated from 20 X 3 mm GI flat duly painted or heavy duty GI spacer saddles spacing of clamps not exceeding 1 m, making good the damages, colour washing etc. as required (for horizontal run) 25x3 mm copper strip	140	mtr		
60	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earthelectrode, including connection/ terminating with nut, bolt, spring, washer etc. as required.(Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	50	mtr		
61	Supply and clamping the following sizes of strips on surface of wall / parapet/ existing cable tray using clamps fabricated from 20 x3 mm GI flat duly painted or heavy duty GI spacer saddles, spacing of clamps not exceeding 1 m , making good the damages, colour washing etc. as required (for vertical run).25 x 3	20	mtr		

	mm copper strip				
62	Supply of superior quality copper earth socket for the following size of earth conductor including crimping etc. as required.3.15 mm (10 SWG)	40	each		
63	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.450 mm width X 62.5 mm depth X 2.0 mm thicknessICDDescriptionUnit	75	mtr		
64	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.600 mm width X 62.5 mm depth X 2.0 mm thickness	10	mtr		
65	Supplying and installing following size of perforated Hot Dipped Galvanised Ironcable tray "bends " (galvanisation not less than 50 microns) with perforation notmore than 17.5%, in convenient sections, joined with connectors, suspended fromthe ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required.450 mm width X 62.5 mm depth X 2.0 mm thickness	8	no		
66	Supplying and installing following size of perforated Hot Dipped Galvanised Ironcable tray "bends " (galvanisation not less than 50 microns) with perforation notmore than 17.5%, in convenient sections, joined with connectors, suspended fromthe ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required.600 mm width X 62.5 mm depth X 2.0 mm thickness	2	no		
67	Supplying and installing following size of perforated Hot Dipped Galvanised Ironcable tray "Tee" (galvanisation not less than 50 microns) with perforation not morethan 17.5%, in convenient sections, joined with connectors, suspended from theceiling	2	no		

	with G.I. suspenders including G.I. bolts & nuts, etc as required.450 mm width X 62.5 mm depth X 2.0 mm thickness				
68	Supply and installation of Integral, SMD LED, IP40, 40W Surface/Suspended Mounted LED Batten with system efficacy of more than 100 lm/W. LED luminaire shall have sleek design with Extruded Aluminu Section. The luminaire shall have High Optically Efficient Polycarbonate Diffuser for Uniform illumination and wider light distribution. Screw less Design ensures ease of maintenance. LM 80-08 compliant LEDs from reputed makes should be provided. LEDs used in the product shall comply with EN 62471 for Photobiological safety and certificate for the same from manufacturer shall be provided. Luminaire manufacturer shall produce certificate of association with LED manufacturer for minimum five years. The LED shall be compliant with LM80-08 standard with Useful L70 life of 50000 Hrs tested at maximum current (Complete LM 80 test report for LED should be submitted for 10000 hrs of testing). The LEDs used should be with CCT of 5700 K and CRI of Minimum 80. LED Driver shall be Isolated type, Constant Current topology driver with proper heat sink for heat dissipation suitable to operate in input voltage range of 150V to 270V (nominal rated voltage – 240V) with 3 KV internal surge protection, Power factor greater than 0.95 and total harmonic distortion (THD) of less than 10% should be integral to the luminaire. Compliance to Indian Standards of IS10322 Part 5 / Sect 1:1967; 16105 : 2012; IS 16106 : 2012; IS 15885 (Part2/Sec13) : 2012; IS 16108 : 2012 Wipro Model No. LL24-541-XXX-57-XX or equivalent from Philips/ Jaquar	11	each		
69	Supply and installation of 35W, High efficient suspended LED Housing made up of extruded Aluminum powder coated and non-yellowing PMMA diffuser. Aesthetic slim profile in ring type with edge lit concept for contemporary interiors. Revolutionary disc of light with horizontal plane creates circle of light. CRI>80, IP20, Ambient temp-0 to 45 Deg C, CCT - 4000K, 50,000 hrs @ L70 life. Driver efficiency>85%,	1	each		

	THD<15%, Power factor>0.95, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 150-270V AC and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. Luminaire lumen 2625 lm. (75 lm/W) Wipro make :LM230R-621-XX57-XW or equivalent in Philips /Jaquar				
70	Supply and installation of 18W, High efficient deep inset recess mounted LED round downlighter with white powder coated, pressure die cast aluminium housing. High transmittivity PS diffuser provides soft light. CRI>80, IP20, Ambient temp-0 to 45DegC, CCT - 4000/5700K, 50,000 hrs @ L70 life.Driver efficiency>85%, THD<10%, Power factor>0.9, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 90-265V AC and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. Wipro make: LD06X-221-XX-57-XX or equivalent	60	each		
71	with white powder coated, pressure die cast aluminium housing. High transmittivity PS diffuser provides soft light. CRI>80, IP20, Ambient temp-0 to 45DegC, CCT - 4000/5700K, 50,000 hrs @ L70 life. Driver efficiency>85%, THD<10%, Power factor>0.9, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 90-265V AC and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. Wipro make: LD06-171-XXX-57-XX or equivalent in philips/ havells	6	each		
72	Supply and installation of LED suspended downlighter should have white powder coated pressure die cast aluminium housing and bottom frame , lumen output greater than 1000 lm and maximum system wattage of 10W including separate CC,CV APFC driver with surge protection of 2 kV. LM 80-08 compliant, ANSI rated LEDs from reputed makes should be provided. The LEDs used in luminaire should be ANSI standard Rated LED with CCT of 4000 K +/- 500K and CRI of Minimum 70. LEDs used must be tested as per EN62471 for photo biological safety of humans. Isolated type, multistage constant current Constant Voltage topology driver suitable to operate in input voltage range of 150V to 270V (nominal rated voltage – 240V) with driver efficiency greater than 85 %. LED tube should have THD <	2	each		

	10%, power factor > 0.9, system efficacy of lamp greater than 100 lumen/watt and including all necessary accessories as required complete.				
73	Supply and installation of IP65 rated LED Bulkhead fitting with aluminium diecast housing with powder coated ,Polycarbonate opal diffuser,High quality silicon gasket for IP65 Protection,Ambient temp-0 to 45 DegC,LED with 50000 burning hours as per L70 Criteria, CRI>70, color temperature- 5700K, , Complete assembly with LED, Driver and accessories pre wired up to terminal block Driver With efficiency>85%, THD<10%, Power factor>0.95, Surge protection in CM-2KV, Multistage Isolated Constant Current- Constant Voltage Operated driver with range 150-270V AC and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. 10W LED Bulkhead luminaire delivering > 720lm, similar to WIPRO make : LW07-141-XXX- 57-G1 or equivalent in Philips/ Jaquar.	10	each		
74	Supply installation testing and commissioning of unitised substation (outdoor type) having 200KVA, 11KV/433V, 3 phase, outdoor type, vector DYN-11 transformer with off circuit tappings from +5% to -10% in steps of 2.5%, changeable on off circuit by tap links provided, with WTI & LV terminals included MCCB 2 runs of PVCA cable and HV terminals connected to 11 KV, 26.3 KA, 630 A Load Break Switch, with incoming suitable for XLPE cable, with HT HRC fuses,3 Nos CTs, 1 No PT, provision for fixing TOD Meter and output connected to 11KV seal off bushings to the transformer with an outer enclosure for outdoor use.	1	each		
75	Supply & fixing of 8mm solid aluminium round conductor with necessary holders @ required interval as specified below: Meets the requirement of (IS/IEC 62305) : semi-hard (E-AlMgSiO5)with 50 sq.mm cross sectional area. Govt approved Indian labs test certificate required. Terrace Conductor Fibre	30	mtr		

	Reinforce Concrete Holder @ every 1 meters				
76	Supply & fixing of 8mm solid aluminium round conductor with necessary holders @ required interval as specified below: Meets the requirement of (IS/IEC 62305) : semi-hard (E-AlMgSiO5)with 50 sq.mm cross sectional area. Govt approved Indian labs test certificate required. Parapet Holder made of weather resistant plastic @ every 0.4 meters	70	mtr		
77	Providing and fixing of Stainless Steel Test Joint suitable with suitable Outdoor Enclosure: For 8mm dia solid round aluminium conductor & 10mm dia copper coated solid steel round conductor having 100 microns of copper bonding (if pure copper conductor 25x3 mm solid tape also can be used). Conforms to the requirements according to (IS/IEC 62305).The enclosure should be outdoor glass-fibre reinforced polycarbonate opaque having minimum inner dimension of 75mm x 75 mm x 50 mm. The test link has to be straight and needs minimum 4 mounting screws for strong joints. Inspection of bimetallic corrosion at site required. Single bolt joints are not permitted. Govt approved Indian labs test certificate required.	8	Each		
78	Supply & fixing of 8mm solid aluminium round conductor with necessary holders @ required interval as specified below: Meets the requirement of (IS/IEC 62305) : semi-hard (E-AlMgSiO5)with 50 sq.mm cross sectional area. Govt approved Indian labs test certificate required. Down Conductor Holder made of weather resistant plastic @ every 0.8 meters	60	mtr		
79	Providing and laying copper coated steel solid round conductor 10mm diameter from earth electrode directly in ground as required. copper coated steel, high corrosion resistant (if pure copper conductor 25x3mm solid tape can also be used). Meets the requirement of (IS/IEC 62305) copper coating thickness of 100microns tape can also be used). Meets the requirement of (IS/IEC 62305) copper coating	110	mtr		

	thickness of 100microns Should be tested and use exclusively for lightning protection earthing system and ring equipotential bonding. After test link needs to be routed inside Heavy duty conduit to avoid touch potential till ground level. Govt approved Indian labs test certificate required.				
80	Supply and fixing Fully Solid Vertical Air terminals as per IS/IEC -62305 part-3,16mm rod tapered to 10 mm aluminium rod meter rod Meets the requirement (IS/IEC 62305) Semi-hard (E-AlMgSiO5) Suitable for high wind load. All air terminal must have Interception Tip at the Top of air terminal. System consist of Fang Fix with base and clamp on the top air terminal is erected. Air terminal Joining Clip Stainless Steel SS 304 clamp made of cable bracket, lightning tested for 100 KA 10/350 micro sec waveform.Stainless Steel Wall Clamp/16 KG stone of 365 mm diameter, high level of stability. No of stones/wall clamps depending on wind load. Quick and easy mounting of interception rod using anchors. Concrete, frostresistant, can be stacked. Govt approved Indian labs test certificate required. 2 meter air terminal with necessary mounting accessories Make: Cape/OBO/Erico	2	set		
81	99.9% purity on low carbon steel of 3m length , having a diameter of 20mm with copper bonding thickness of 250 microns with self-coupling peg & bore arrangement with fault current withstand capability of 30 KA rms value for 1 second and I peak of 76 KA. Exothermic welded Clamp for clamping as suggested as per NBC 2016. Impact point on the bottom rod for easy insertion. Earth enhancing mineral compound is used for improving the soil conductivity. The material shall be mineral inert to sub soil and shall not pollute the environment and non corrosive to earth rod. The material should have a resistivity less than 0.2 m. It should be free from hazardous substances. The mineral compound is required to have minimum 30 Kg of the total composite. The compound should be chemically inert and needs to submit Govt approved Indian labs test certificate. Concrete	6	each		

	Earth electrode inspection chamber with heavy duty cover should be used to cover the Earth Rod. The dimension shall be 320mmx 320mmx 190mm with a weight bearing capacity of 50KN. Govt approved Indian labs test certificate required. Make: Cape / Erico / Furse				
82	Supply and Installation of 12KV Ring Main Unit, Outdoor Type with enclosure, Rated short time withstand(main and earth) 20 kA 3 seconds, 630A continuos,rated current, Normal ambient temperature - 25 °C to + 40 °C, IP 67 Rated High voltage live parts, SF6 tank, 300 mm2 three core or 500 mm2 single core maximum cable size, fuses confirming to IEC 60282-1, DIN 43625,	1	each		
83	supply, installation, testing and commissioning of 200 kVA(160kW), Diesel Generating Set with CPCBII approved acoustic enclosure comprising of Radiator Cooled Diesel engine having 1500 RPM, complete with standard accessories. Coupled to "Stamford" Alternator rated at 160KW/200 KVA at 415 Volts mounted on Channel Iron Base Frame complete with Fuel Tank, Control Panel and Batteries with battery charger.	1	each		
84	and vermin proof, cubicle type MV panel board comprising of the following components/ devices & complying to IS 8623. Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabricationofpanelassembly.(UtilityPanel) INCOMER:63ATPN ISOLATOR OUTGOINGS: 40A TP MCB - 2 Nos 32A TP MCB - 2 Nos 25A TP MCB - 2	1	Each set		

	Nos				
85	Fabrication, supply, conveyance, installation testing and commissioning of floor or wall mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices & complying to IS 8623. Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly.(UPS Panel) INCOMER: 200A FP MCCB OUTGOINGS: 125A TP MCCB - 3 Nos 63A TP MCCB - 2Nos	1	Each set		
86	and vermin proof, cubicle type MV panel board comprising of the following components/ devices & complying to IS 8623. Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabricationofpanelassembly.(ACPanel) INCOMER:100ATPN	1	Each set		

	ISOLATOR OUTGOINGS: 63A TP MCB - 3 Nos 40A TP MCB - 3Nos				
87	Supply installation testing and commissioning of 80 KVAr APFC panel with block reactors. The voltage rating of the Power Factor correction requirement shall be at 440 Volts between phases. The total KVAR shall be divided into automatically switched steps of suitable rating. The no. of switching stages shall be designed appropriately in steps of 20*2,15*1, 10*1& 5*3 for 150 KVAr. Individual Capacitors shall be of 3 phase construction in design using Heavy Duty Polypropylene as a dielectric with vaccum deposited conductors on the polypropylene as electrodes.Dielectric material shall be low loss, less than 0.3 watts per KVAr. The controller should be fully automatic, intelligent microprocessor based relay operated offering minimum 8 stage. The enclosure shall be made from 14/16 gauge CRCA sheet steel. Seven tank process shall be carried out for treating the sheet metal. 	1	Each set		
88	Fabrication, supply, conveyance, installation testing and commissioning of floor mounting, dust and vermin proof, cubicle type MV panel board comprising of the following components/ devices & complying to IS 8623. Fabrication of fully partitioned, dust and vermin proof enclosure for panel assembly as per form 4 of IS 8623 (with latest amendments) using CRCA sheet as per approved design and requirement, with front and rear access facility, bus bar chambers, hinged doors for all switch gear compartments, earthing the doors using 4 sq mm braided copper conductor, providing necessary cut-outs for mounting meters, relays, indication lamps, bus bar interconnection etc, detachable covers for bus bar chamber and cable alley, powder coating the assembly after subjecting to 7 tank process etc as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of panel assembly. The panel must be compatible with BMS system.(MSB Panel) INCOMER: 320A,50KA, 4P MCCB with E/F - 2 nos 325A 4P CONTACTOR-	1	Each set		

	2no AMF relay with interlock- 1 no 51G relay- 1 no OUTGOINGS: 125A ,25KA, TP, MCCB - 2nos 100A , 25KA, TP, MCCB - 2 nos 200A FP MCCB - 2nos 200A TP MCCB - 1no				
	TOTAL				

Gross Total Cost: - Rs……...

(In words) We agree to supply the above goods in accordance with the technical Specification for a total price of Rs…….(amount in figure)……(amount in words) with in the period specified in the invitation for tender.

Signature of Tenderer