

ELECTRIFICATION OF LADIES HOSTEL AT COLLEGE OF ENGINEERING, PATHANAPURAM

Tender Schedule

Sl.No.	Specification of item	Qty.	Unit	Rate in rupees	Amount
1.	<p>Fabrication, Supply, erection, testing and commissioning of cubicle extendable type, dust and vermin proof, floor mounted, front operated MV panel board made out of 14 SWG thick CRCA sheet, powder coated after 7 tank process, fully compartmentalised complete with hinges and earthed front doors with name plate, danger notice board, heavy duty rubber gaskets, removable gland plates made out of 3mm thick sheet steel with all necessary meters, indications, CTs etc. as shown in the electrical drawing or as per the latest Electrical Inspectorate requirement complete with all connections and interconnections for the following panels.</p> <p>Special Note: #All breaker releases shall be set as per the ratings shown in the drawings. #Bus bar sizes shall be taken either as shown in the drawing or as design parameter of *0.8A/Sq.mm for Al and 1.2A/Sq.mm for CU whichever is higher. #Cable Chamber shall be provided for incoming & outgoing cables</p>				

Contractor:

	<p>#Earth bus shall be full length of the panel and all switches/breakers shall be earthed.</p> <p>#GA drawings for all the panels before manufacturing shall submit to the Electrical Inspectorate to get approval before manufacturing</p> <p><u>Incoming:</u></p> <p>1) 160A 35KA 4P MCCB (Thermal Magnetic Type)set at 100A (as in scheme) – 1 No.</p> <p>2) TPN bus bar of best conductivity Aluminium 25.4x9.5 mm Al. for phase and 25.4x6.4 Al. for Neutral with heat shrinkable sleeves mounted on DMC/FRP bus bar supports with extensible sus bar.</p> <p><u>Out going</u></p> <p>1. 100 A 35KA 3P MCCB- 2Nos.,</p> <p>2. 63A35 KA 3P MCB- 2 Nos.</p> <p><u>Accessories:</u></p> <p>1. ELR 30-3000mA with CBCT- 1No.</p> <p>2. Danger notice board, fuse links, indication lamps ON/OFF/TRIP indication lamps-1No.</p> <p>3. VAF digital meter- 1No.</p>	1	No.	1,47,000.00 (Rupees one lakh forty seven thousand only)	1,47,000.00
a)	Supply, fabrication and erection of cable tray with supports including welding painting fixing etc.	30	Kg.	105.00 (Rupees one hundred and five only)	3150.00
b)	Supply and fixing of dry chemical			2324.00	

Contractor:

	power type fire extinguisher of 5 Kg (ABC)	2	Nos.	(Rupees two thousand three hundred and twenty four only)	4648.00
c)	Supply and laying 1.1 KV grade 6mm thick rubber sheet of size 2x1 mtr. as per IS 5424	1	No.	700.00 (Rupees seven hundred only)	700.00
2.	Supply and wiring points according to IS 732-1989 using rigid PVC ivory conduit of minimum size 20 mm conforming to IS 9537 part III 1983 and with suitable size specials conforming to IS 3419-1988, fixing the conduit using metal saddles spacing not exceeding 50 cm or concealed suitably and with 1.00 sq mm PVC insulated stranded single core FR <i>copper conductor cable</i> 650V grade, including providing switch board main ,and continuous earthing with 1.5sqmm green coloured FR wire , required qty of copper earth socket, brass bolt and nut crimping etc complete with suitable size modular type metal switch boxes, <i>modular type front</i>				

Contractor:

	<i>plates (white)</i> etc. up to and including 6 A modular type ROHS compliant SP switches and making good the surface of wall, colour washing etc. complete. All the terminations in the switch boards and DB's shall be tinned and the wires shall be drawn and fixed along the periphery of the box using suitable ties, tie mounts etc. as required.				
a)	Single control light point with 6A, 3 plate ceiling rose.	391	E	676.00 (Rupees six hundred and seventy six only)	2,64,316.00
b)	Twin control light point with 6 A, 3 plate ceiling rose	14	E	897.00 (Rupees eight hundred and ninety seven only)	12,558.00
c)	Single control light point without ceiling rose.	92	E	657.00 (Rupees six hundred and fifty seven only)	60,444.00
d)	Twin control light point without ceiling rose	2	E	579.00 (Rupees five hundred and seventy nine only)	1,158.00
3.	Single control ceiling fan point with 6 A 3plate ceiling rose & with socket size stepped electronic regulator.	120	E	1231.00 (Rupees one thousand two hundred and thirty one only)	1,47,720.00
4.	Call bell point with modular type 6A bell push at one end and 6A,			632.00 (Rupees six hundred and thirty two	

Contractor:

	3 plate ceiling rose at other end.	2	E	only)	1264.00
5.	Combined plug point with 6 A, 5 pin plug socket controlled by 6 A switch in the same switch board as that of light points.	10	E	338.00 (Rupees three hundred and thirty eight only)	3380.00
6.	Supply and wiring 6A, 5Pin plug socket controlled by 6A SP switch in dependant position.	176	E	531.00 (Rupees five hundred and thirty one only)	93,456.00
7.	Supply and fixing call bell	1	E	145.00 (Rupees one hundred and forty five only)	145.00
8.	R.J. 11 Telephone Jack with shutter	2	E	139.00 (Rupees one hundred and thirty nine only)	278.00
9.	TV Coaxial Socket outlet- 1M	1	E	145.00 (Rupees one hundred and forty five only)	145.00
10.	Supply and installation of suitable size MS rod type fan clamp as per IS 732 as required.	120	E	124.00 (Rupees one hundred and twenty four only)	14,880.00
11.	<i>Supply, conveyance, installation, testing and commissioning wall mounting fan</i> of the following sizes using mounting brackets supplied along with the fan and giving connection with existing wire. 300 mm Sweep	2	E	1594.00 (Rupees one thousand five hundred and ninety four only)	3188.00

Contractor:

12.	<p><i>Supply conveyance, installation, testing and commissioning the following types of light fittings made from CRCA sheet 0.5mm thickness with all accessories and lamps directly on wall and giving connections with 16/0.20 mm 3 core PVC insulated and sheathed round copper conductor flex wire or extending the original wiring and giving connections as required</i></p> <p>1x28wT5 fitting with APF electronic ballast suitable for continuous operation with THD <10%, power factor >0.98, RoHS compliant, high lumen tube.</p>	193	E	<p>2104.00 (Rupees two thousand one hundred and four only)</p>	4,06072.00
13.	<p><i>Supply, conveyance, installation, testing and commissioning of pre-wired light fittings made of .5mm thick CRCA sheet accessories and lamps etc. including supplying and fixing ball and socket arrangements on PVC round block, suspension</i></p>				

Contractor:

	<p>down rod of 19mm dia. MS conduit up to 2x30cm length including painting and wiring the down rod with 16/0.20mm 3 core round copper conductor flex wire conforming to relevant ISS or extending the original wiring and giving connections etc. as required.</p> <p>1x28wT5 fitting with APF electronic ballast suitable for continuous operation with THD <10%, power factor >0.98, RoHS compliant, high lumen tube .</p>	103	E	<p>2137.00 (Rupees two thousand one hundred and thirty seven only)</p>	2,20,111.00
14.	<p>Supply and fixing surface mounting heat resistant prismatic glass cover suitable for 11/18W CFL to wall/ceiling including giving connections with required length of 16/0.20mm PVC insulated and PVC sheathed 3 core round copper conductor flex wire conforming to relevant ISS or extending the original wiring and</p>			492.00	

Contractor:

	making good the surface as required.	61	Nos.	(Rupees four hundred and ninety two only)	30,012.00
15.	Supply and fixing 11W CFL in existing holder.	61	E	156.00 (Rupees one hundred and fifty six only)	9,516.00
16.	Supply and fixing 6/16A shuttered socket with 16A control switch modular type in company made box and front plate (Group B).	4	E	665.00 (Rupees six hundred and sixty five only)	2660.00
17.	Supply and fixing the following sizes of <i>PVC Conduit</i> conforming to IS 9537 / 1983 part III along with all required accessories <i>on surface</i> including making good the damages etc as required.				
a)	20 mm dia. medium gauge	30	Mtr.	87.00 (Rupees eighty seven only)	2,610.00
b)	25 mm dia. medium gauge	10	Mtr.	99.00 (Rupees ninety nine only)	990.00

Contractor:

18.	Supply and laying <i>medium gauge PVC conduit</i> conforming to IS 9537/1983 Part III in roof slab, jointing the pipes with PVC solvent cement, tying & fixing the conduit firmly with the reinforcement etc. as required.				
a)	20 mm	2000	Mtr.	41.00 (Rupees forty one only)	82,000.00
b)	25 mm	250	Mtr.	49.00 (Rupees forty nine only)	12,250.00
19.	Supply and fixing the following <i>deep PVC accessories</i> conforming to IS 3419/1988 along with the PVC conduits laid in concrete				
a)	20 mm one way terminal junction box	300	E	50.00 (Rupees fifty only)	15,000.00
b)	20 mm two way through junction box	500	E	51.00 (Rupees fifty one only)	25,500.00
c)	20 mm 3 way angle junction box	500	E	52.00 (Rupees fifty two only)	26,000.00
d)	20 mm four way intersection junction box	250	E	55.00 (Rupees fifty five only)	13,750.00

Contractor:

20.	Supply and fixing the following sizes of <i>PVC Conduit</i> conforming to IS 9537 / 1983 part III along with all required accessories <i>in recess</i> including cutting the wall and making good the damages etc. as required.				
a)	20 mm dia. medium gauge	700	Mtr.	124.00 (Rupees one hundred and twenty four only)	86,800.00
b)	25 mm dia. medium gauge	250	Mtr.	136.00 (Rupees one hundred and thirty six only)	34,000.00
21.	Supply and drawing 650/1100 V grade <i>PVC insulated stranded single core copper conductor cables</i> conforming to IS 694 part I 1990 in the existing surface / recess conduit as required including giving necessary connections of the following sizes.				
a)	2.50 sq. mm 3 run	1500	Mtr.	107.00 (Rupees one hundred and seven only)	1,60,500.00
b)	4.00 sq. mm 3 run	400	Mtr.	145.00 (Rupees one hundred and forty five only)	58,000.00
c)	4.00 sq. mm 4 run	40	Mtr.	184.00 (Rupees one hundred and eighty four only)	7,360.00

Contractor:

22.	Supply and drawing bare <i>earthing conductors</i> of the following sizes <i>along with wiring/ cables</i> and giving connection as required. 3.15 mm copper conductor (10 SWG)	360	Mtr.	62.00 (Rupees sixty two only)	22,320.00
23.	Supply and clamping 25x3 mm tinned copper strip on wall.	0.3	Mtr.	482.00 (Rupees four hundred and eighty two only)	144.60
24.	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.				
a)	3.5 core 25 sq. mm with factory made clamp	130	Mtr.	271.00 (Rupees two hundred and seventy one only)	35,230.00
b)	3.5 core 50 sq. mm with factory made clamp	50	Mtr.	393.00 (Rupees three hundred and ninety three only)	19,650.00
25.	Supplying siemens / tropodur type nickel plated Double				

Contractor:

	<i>compression brass cable gland</i> for PVC insulated and PVC sheathed armoured aluminium/ copper conductor cable 1.1 KV grade, and making end termination suitable for 2/ 3/ 3½/ 4 core cable of the following sizes as required.				
a)	3.5x25 sq.mm	10	Nos.	474.00 (Rupees four hundred and seventy four only)	4740.00
b)	3.5x50 sq.mm	8	Nos.	646.00 (Rupees six hundred and forty six only)	5168.00
26.	Supplying and providing <i>earth clamps</i> for siemens/tropodur type cable glands of suitable length and other dimensions noted along with each size of glands for the following sizes of cables as required.				
	25 Sq.mm	10	Nos.	27.00 (Rupees twenty seven only)	270.00
b)	35 Sq.mm	8	Nos.	27.00 (Rupees twenty seven only)	216.00
27.	Supply of superior quality <i>aluminium tubular cable socket</i> and making core termination of cables of the following sizes				

Contractor:

a)	including crimping etc. as required. 3.5x25 sq.mm	40	Nos.	14.40 (Rupees fourteen and forty paisa only)	576.00
b)	3.5x50 Sq.mm	16	Nos.	19.00 (Rupees nineteen only)	304.00
28.	Supply and connection of 32A DP Master control switch with neon indicator.	50	Nos.	270.00 (Rupees two hundred and seventy only)	13,500.00
29.	Supplying and providing <i>earth clamps</i> for siemens/tropodur type cable glands of suitable length and other dimensions noted along with each size of glands for the following sizes of cables as required. 25 Sq.-95 Sq.mm with 20 mm wide x 1.20 mm thick clip	14	Nos.	56.00 (Rupees fifty six only)	784.00
30.	Fabrication, Supply, Conveyance and fixing frame work made out of suitable size angle iron/flat cut and welded to shape of suitable size painted with two coats of synthetic enamel paint over a coat of red oxide primer & with drilled holes to mount switch gear, fixed to wall using				

Contractor:

	suitable size anchor bolts or grouted to wall, making good the damages, colour washing etc. as required.	200	Nos.	133.00 (Rupees one hundred and thirty three only)	26,600.00
31.	Supply and fixing 2x18 W squire type ceiling fitting, heat resistant prismatic transparent cover suitable for 2x18W CFL to ceiling including giving connections with required length of 16/0.20 mm PVC insulated and PVC sheathed 3core round copper conductor flex wire conforming to relevant ISS or extending the original wiring and making good the surface as required.	90	Nos.	1,210.00 (Rupees one thousand two hundred and ten only)	1,08,900.00
32.	Supply and fixing 18W CFL in existing holder.	180.00	E	169.00 (Rupees one hundred and sixty nine only)	30,420.00
33.	Supply and fixing 2x36 W squire type ceiling fitting, heat resistant prismatic transparent cover suitable for 2x36W CFL to ceiling including giving connections with required length of 16/0.20 mm PVC insulated and PVC sheathed 3 core round copper				

Contractor:

		2	Nos.	7739.00 (Rupees seven thousand seven hundred and thirty nine only)	15,478.00
b)	12 way (8+36) - three phase double cover (IP 42/43)	5	Nos.	7,051.00 (Rupees seven thousand and fifty one only)	35,255.00
36.	Supply and installation of the following <i>accessories</i> suitable for 50 Hz , AC supply conforming to IS 8828-1995/ IEC 60898 of the following current ratings in the existing enclosure and giving connections as required				
a)	63 A, 15KA, 4 Pole MCB (C curve).	5	Nos.	1,751.00 (Rupees one thousand seven hundred and fifty one only)	8,755.00
b)	100 A 4 Pole (C curve)	2	Nos.	6,562.00 (Rupees six thousand five hundred and sixty two only)	13,124.00

Contractor:

c)	63 A, 25 KA, TP MCB (C curve)	4	Nos.	1,369.00 (Rupees one thousand three hundred and sixty nine only)	5,476.00
d)	6-32A (C curve)	116	Nos.	273.00 (Rupees two hundred and seventy three only)	31,668.00
e)	63A,4 Pole, 100 mA RCCB	5	Nos.	3,334.00 (Rupees three thousand three hundred and thirty four only)	16,670.00
f)	100 A, 4 Pole, 100 mA RCCB (Group B)	2	Nos.	5,078.00 (Rupees five thousand and seventy eight only)	10,156.00
37.	Supply and installation of cable box for 3ph 6 way DB	5	Nos.	974.00 (Rupees nine hundred and seventy four only)	4870.00
38.	<i>Supply, conveyance, installation, testing and commissioning of ceiling fans of the following sizes using standard accessories excluding resistance type regulator, wiring the down rod with 16/0.20mm PVC insulated and PVC sheathed 650/1100V grade 3 core round copper conductor flex wire or with extended original wiring etc. as</i>				

Contractor:

	required. 1200 mm sweep - 5 star rated	125	Nos.	1,853.00 (Rupees one thousand eight hundred and fifty three only)	2,31,625.00
39.	<i>Charges for cutting holes suitable for accommodating exhaust fans of sizes exceeding 305 mm sweep up to 450 mm including plastering, colour washing etc. as required.</i>	16	Nos.	294.00 (Rupees two hundred and ninety four only)	4704.00
40.	<i>Supply, conveyance, installation, testing and commissioning of the following sizes of exhaust fans in the existing opening, fixing necessary bolt and nuts, making good the damages etc. as required including giving</i>				

Contractor:

	connections with required length of 24/0.20mm PVC insulated and PVC sheathed 3 core round copper conductor flex wire conforming to relevant ISS. 300/ 305 mm, single phase light duty exhaust fan in metal frame	16	Nos.	1,594.00 (Rupees one thousand five hundred and ninety four only)	25,504.00
41.	Supply and providing <i>plate earthing</i> as per IS 3043 with 1200x1200x12 mm GI/CI earth plate, 50 mm GI watering pipe fixed to the earth plate with 25 x 3mm GI clamps, GI funnel with weld mesh, filling required quantity of charcoal including construction of inspection chamber with a bed concrete of 1:4:8 PCC using 40 mm broken				

Contractor:

	stone (10 cm thick), brick work in cement mortar 1:6, plastering the surface of brick masonry and the exposed surface of PCC bed with cement mortar 1:4, 12 mm thick, (the finished inside dimension shall be 450 x 450 x 450 mm) but excluding test joint, earth continuity conductor to the plate, and covering at the top. <i>(in ordinary soil)</i>	2	Nos.	10,652.00 (Rupees ten thousand six hundred and fifty two only)	21,304.00
42.	Supply and providing <i>test joint for the earthing system</i> using 2 Nos of the following sizes of strips including cutting and bending to shape, drilling necessary holes and fixed to the				

Contractor:

	watering pipe etc as required. 2x40x3 mm G.I. strip.	0.3	Nos.	215.00 (Rupees two hundred and fifteen only)	64.50
43.	Supply and providing the following sizes of <i>cast iron gully trap with covering</i> at the top of the inspection chamber of earth pit as required 450 x 450 x 10 mm cast iron gully trap with covering	2	Nos.	929.00 (Rupees nine hundred and twenty nine only)	1,858.00
44.	Supply and connecting 25x6 G.I. strip from joint to plate.	30	Mts.	242.00 (Rupees two hundred and forty two only)	7,260.00
45.	<u>External Power supply to panel board</u> Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power				

Contractor:

	<p>cable of 1.1KV grade of the following sizes in ground including excavation of trench of size 35 x 75 cm, sand cushioning up to a height of 25cm (80+170mm), providing protective covering with country burnt bricks laid breadth wise, refilling the trench etc. as required (in hard soil). 3.5 Core 185 Sq.mm</p>	50	Mts.	<p>1404.00 (Rupees one thousand four hundred and four only)</p>	70,200.00
46.	<p>Supply of superior quality <i>aluminium tubular cable socket</i> and making core termination of cables of the following sizes including crimping etc. as required. 185 Sq.mm</p>	8	Nos.	<p>56.00 (Rupees fifty six only)</p>	448.00
47.	Supplying and providing <i>earth</i>				

Contractor:

	<p><i>clamps</i> for siemens/tropodur type cable glands of suitable length and other dimensions noted along with each size of glands for the following sizes of cables as required.</p> <p>20 x 3 mm for earthing glands of size 120 sq. mm to 185 sq mm</p>	2	Nos.	99.00 (Rupees ninety nine only)	198.00
48.	<p><u>Lightning protection System</u></p> <p>Supply and providing pipe earthing as per IS 3043 with 3.6 m long 38/40mm dia B class GI pipe, GI funnel with weld mesh, filling required quantity of charcoal and salt including construction of inspection chamber with a bed concrete of 1:4:8 PCC using 40mm broken stone (100mm thick), brick work in cement mortar 1:6, plastering the surface of brick masonry and the exposed surface of PCC bed with cement mortar 1:4,12mm thick, (the finished inside</p>				

Contractor:

	dimensions shall be 300x300x300mm) but excluding test joints, earth continuity conductor to the plate and covering at the top (in hard soil)	3	Nos.	2560.00 (Rupees two thousand five hundred and sixty only)	7680.00
49.	Supply and providing test joint for the earthing system using 2 Nos. of 2x25x3mm tinned copper strip including cutting and bending to shape, drilling necessary holes and fixed to the watering pipe etc. as required	3	Nos.	500.00 (Rupees five hundred only)	1,500.00
50.	Providing and fixing testing joint made of 2 no. strips as mentioned below of the following sizes provided on either side of the conductors with 4 nos of GI bolts, nuts check nuts and spring washers etc. complete as required (for down conductors). 2 Nos. 25x6mm lesd strip 150mm long				

Contractor:

		3	Nos.	350.00 (Rupees three hundred and fifty only)	1,050.00
51.	Supply and <i>clamping</i> the following sizes of <i>strips</i> 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 1m, making good the damages, colour washing etc. as required (<i>for horizontal run</i>). 25x3mm aluminium strip	180	Mts.	150.00 (Rupees one hundred and fifty only)	27,000.00
52.	Supply and <i>clamping</i> the following sizes of <i>strips</i> 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 1m, making good the damages, colour washing etc. as required				

Contractor:

	(for vertical run). 25x6mm GI strip tinned at the points of contact	150	Mts.	190.00 (Rupees one hundred and ninety only)	28,500.00
53.	Charges of preparation of drawing, and obtaining approval from Electrical Inspectorate and KSEB including all liaison work.	1	Job	12,000.00 (Rupees twelve thousand only)	12,000.00
				Total	28,09,319.00

(Rupees twenty eight lakh nine thousand three hundred and nineteen only)

Contractor: