

**CONSTRUCTION OF STAFF QUARTERS AT DISTRICT HOSPITAL, MANANTHAVADY****PART B - ELECTRICAL WORKS**

<b>Sl.No</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QTY</b>	<b>RATE (in figures &amp; in words)</b>	<b>AMOUNT (in Rs)</b>
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in recessed medium class PVC conduit, with 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.	Point	160		
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.	Point	20		
3	Wiring for circuit/submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in recessed medium class PVC conduit as required.				
a	2x1.5 sq.mm + 1x1.5 sq.mm earth wire	Rm	650		

b	2x2.5 sq.mm + 1x2.5 sq mm earth wire	Rm	500		
c	2x4 sq.mm + 1x4 sq mm earth wire	Rm	200		
d	2x10 sq. mm + 1x10 sq. mm earth wire	Rm	80		
4	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in recess including cutting the wall and making good the same in case of recessed conduit as required.				
a	20 mm	Rm	250		
5	Supplying and fixing following size / modules, PVC box alongwith modular base & cover for modular telephone/ data sockets in recess etc as required.				
a		Each	60		
	1 or 2 module				

6	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
a	Telephone socket outlet	Each	12		
b	TV antenna socket outlet	Each	12		
7	Supplying and drawing following pair 0.5 sq mm FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.				
a	2 Pair	Rm	150		
b	4 pair	Rm	50		
8	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	Rm	95		

9	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required.	Each	108		
10	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	Each	30		
11	Supplying and fixing of call bell or buzzer suitable for single phase 230 volts, complete as required	Each	6		
12	Supplying and fixing stepped type electronic fan regulator-modular on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	36		
13	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connection etc as required.	Each	140		

14	Supplying and fixing modular blanking plate on the existing modular plate and switch box excluding modular plate as required.	Each	90		
15	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube etc. directly on ceiling/ wall, false ceiling with chain and hook including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	90		
16	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.	Each	36		
17	Supplying and fixing extra down rod of 10 cm length GI pipe, 15 mm dia, heavy gauge including painting etc, as required.( Note More than 5 cm length shall be rounded to the nearest 10cm and 5cm or less shall be ignored).	Each	50		
18	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.				

a	Upto 450 mm sweep	Each	20		
19	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
a	2 + 12 way/14 way, Double door	Each	7		
20	Supplying and fixing following rating, double pole, 240 volts,isolator in the existing MCB DB complete with connections,testing and commissioning etc. as required.				
b	40 amps	Each	7		

21	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current of 30 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	40 amps	Each	6		
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.				
a	Single pole	Each	60		
23	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc as required.	Each	11		

24	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 amps, C curve SP MCB in sheet steel enclosure on surface or in recess, with chained metal cover for the socket outlet and complete with connection, testing and commissioning etc as required.	Each	12		
25	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke as required.	Each	2		
26	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	Rm	50		
27	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.	Rm	49		
28	Laying of one no. PVC insulated and PVC sheathed / XLPE power cable of 1.1kV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.				

a	Upto 35 sqmm	Rm	200		
29	Laying of one no. PVC insulated and PVC sheathed / XLPE power cable of 1.1kV grade of following size in the existing RCC / Hume / Metal pipe as required.				
a	Upto 35 sqmm	Rm	20		
30	Laying of one no. PVC insulated and PVC sheathed / XLPE power cable of 1.1kV grade of following size on wall surface as required.				
a	Upto 35 sqmm (clamped with 1mm thick saddle)	Rm	30		
31	Supplying and making cable route marker with cement concrete 1:2:4 (1 cement:2 coarse sand: 4 graded stone aggregate 20mm nominal size) of size 60 cm x 60 cm at the bottom and 50 cm x 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	Each	10		

32	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 1.1kV grade as required.				
a	3.5 C x 35 sqmm	Each	2		
b	2 C x 6 sqmm	Each	10		
33	Providing, laying and fixing 100 mm dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75cm deep) and refilling etc as required.	Rm	15		
34	Supply of 1x36W, indoor surface mountable decorative sleek luminaire with electronic ballast, engineering plastic end cap, 36W T8 lamp, lamp holder, prewired complete with all necessary accessories suitable for operation on 230V, 50Hz AC supply as required (Havells LHDF 21136025 / Bajaj BCIR 136 WEB / HPL HCPE4036).	Each	45		

35	Supply of decorative wall light fixture made of polycarbonate including 15W CFL lamp prewired complete with all necessary accessories suitable for operation on 230V, 50Hz AC supply as required (Havells LHDLO6160099 / Bajaj BJLF1 15W RF).	Each	30		
36	Supply of surface mounted square, decorative downlight with electronic ballast, diffuser, lamp, etc prewired complete with all necessary accessories suitable for operation on 230V, 50Hz AC supply as required (Havells LHDC701225670 / Bajaj BJSM 211 W2EB / HPL HSCS4025).	Each	5		
37	Supply of 1x11W compact and decorative luminaire with anti glare diffuser & decorative end caps , 11W CFL lamp, prewired complete with all necessary accessories suitable for operation 230V 50Hz AC supply complete with all mounting accessories as required. (Havells LHFOECF1OZ1W011 / Bajaj BJC 111 / HPL HCCE 11011 ).	Each	6		
38	Supplying and fixing ISI marked PVC angle batten holder with 11W CFL lamp including all connection etc as required.	Each	20		

39	Supply of ceiling fan 1200 mm sweep, double ball bearing, approved colour and quality with original down rod,suspension shackle,canopy etc with out regulator complete with all accessories as required. (Usha Technix Decorative (5 star rating) / Crompton High Breeze plus (5 star) / Orient Energy star)	Each	40		
40	Supply of ventilating fan 250 mm sweep of approved colour, for single phase 230 volt, 50Hz AC supply complete with motor, capacitor, auto close and open grill cover and all accessories as required complete.	Each	20		
41	Supply and installation of 28W street light fitting with Aluminium housing, UV stabilised acrylic cover with rubber gasket fitted with SS toggle, epoxy powder coating housing, preanodized reflector, lamp etc including all necessary accessories suitable for operation on 230V, 50Hz AC supply as required (Havells LHFTBAL1IN5J028 / Bajaj BTSLF 128 / HPL HPLT5STALS128).	Each	4		
42	Supply and Installation of 10 pair Telephone Terminal box with 1 no. 10 pair krone IDC module and SS BMF with all accessories.	Each	1		

43	Supply, Installation, Testing & Commissioning of Metering panel, cubicle type, made out of 2mm thick CRCA sheet, totally enclosed, IP42, free standing, floor mounting, dust and vermin proof, powder coated, indoor, compart-mentalised, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system, including internal wiring with suitable size wires, spreaders, 3mm thick gland plate, hinged type door with neoprene gasket etc. The panel shall include supply & installation of following switchgears, metering instruments and accessories as per specification.				
	<b>Incomer</b>				
	1 no. 100A TPN MCCB 25kA with thermal magnetic release, adjustable overload setting, rotary handle etc.				
	Space provision for accomodating one no. three phase energy meter (check meter), 100A cutout fuse etc with glass view panel and testing arrangement				
	<b>Busbar</b>				
	1 Set of 100A TPN busbars of high conductivity electrolytic quality Aluminium alloy.				
	1 Set of 25 x 3 mm copper busbars of high conductivity electrolytic quality shall be provided throught out the panel for its routing.				
	<b>Instuments</b>				
	1 Set of phase indicating lamps, LED type, RYB.				
	1 Set of 2A 10kA C curve SP control MCB				

	<b>Outgoings</b>				
	8 nos single phase LCD kWh meter, 240V, 10-60A, Acc. class 1 with glass view panel, locking arrangement etc.				
	8 nos 32A cutout fuse unit with HRC fuse and 8 nos. neutral link.				
	8 nos. 40A, C curve, 10kA, SP+NL MCB.	Job	1		
44	Supply of the following size 1.1kV grade XLPE insulated PVC sheathed, armoured Aluminium conductor power cable conforming to IS 7098 (part 1) ammended upto date.				
a	3.5C x 35 sqmm	Rm	150		
b	2 C x 6 sqmm	Rm	100		

45	<p>Supply &amp; installation of Hot dipped Galvanised tubular swaged pole of 90 micron zinc coating with tensile strength 410 Mpa of overall length 7 Mtrs long single arm swan neck as per IS 2713. The pole shall have outside dia &amp; thickness as 114.3x3.65, 88.9x3.25, 76.1x3.25mm, &amp; sectional length 4.00+1.5+1.5 m alongwith 300 x 300 x 10 mm MS base plate welded at bottom. The pole shall have planting depth of 1.5 mtr. The pole shall be provided with suitable size polycarbonate / thermoplastic loop in loop out box. The loop in loop out box shall have single phase power connector or bus bar of required current rating for loop in loop out of cable, 2A C curve SP MCB, 3Cx1.5sqmm Cu wire from loop in loop out box to light fitting. Required dia PVC / GI pipe shall be provided in the foundation for taking cable in &amp; out from the pole. The cost of the civil foundation shall be measured along with civil items. The design of the foundation shall be got approved before construction.</p>	Each	4		
46	<p>Supply &amp; laying ISI marked electrical grade chequered type rubber mat of size 2m x 1m x 6 mm suitable for 415V power supply.</p>	Each	1		
	<p><b>TOTAL -PART B ELECTRICAL WORKS</b></p>				