

CONSTRUCTION OF SPECIALITY BLOCK AT GENERAL HOSPITAL, ERNAKULAM					
PART - III ELECTRICAL WORKS					
Item No	Details of Items	Unit	Quantity	Rate (In words & figures)	Amount Rs.) (in
	DSR Items				
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	110		
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	3		
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.				
3.1	2x1.5 sq.mm + 1x1.5 sq.mm earth wire	m	220		
3.2	2x2.5 sq.mm + 1x2.5 sq mm earth wire	m	410		
3.3	2x4 sq.mm + 1x4 sq mm earth wire	m	160		
3.4	2x6 sq. mm + 1x6 sq. mm earth wire	m	40		
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.				
4.1	20 mm	m	220		
4.2	25 mm	m	85		

Item No	Details of Items	Unit	Quantity	Rate (In words & figures)	Amount Rs.) (in
5	Supply and fixing metal box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required.				
5.1	200 mm x 250 mm x 100 mm deep	Each	5		
5.2	250 mm x 300 mm x 100 mm deep	Each	5		
6	Supplying and fixing following size / modules, PVC box alongwith modular base & cover for modular telephone/ data sockets in recess etc as required.				
6.1	1 or 2 module	Each	30		
7	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
7.1	Telephone socket outlet	Each	15		
7.2	TV antenna socket outlet	Each	3		
8	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.				
8.1	2 Pair	m	130		
8.2	4 pair	m	45		
9	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.	m	100		

Item No	Details of Items	Unit	Quantity	Rate (In words & figures)	Amount (Rs.) (in
10	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	45		
11	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	25		
12	Supplying and fixing of call bell or buzzer suitable for single phase 230 volts, complete as required	Each	5		
13	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	20		
14	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connection etc as required.	Each	55		
15	Supplying and fixing modular blanking plate on the existing modular plate and switch box excluding modular plate as required.	Each	45		
16	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 including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	40		
17	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	20		
18	Supplying and fixing extra down rod of 20 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	30		

Item No	Details of Items	Unit	Quantity	Rate (In words & figures)	Amount Rs.) (in
19	Supply laying and termination of 4 pair CAT 6 UTP cable in the existing surface / recessed steel / PVC conduit as required.	m	210		
20	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.				
20.1	Upto 450 mm sweep	Each	3		
21	Providing and fixing 100 Amps, 16kA, TP rating and breaking capacity MCCB in the existing cubicle panel board / DBs including drilling holes in cubicle panel, making connections etc as required.	Each	1		
22	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)				
22.1	2 + 4way/6 way, Double door	Each	1		
22.2	2 + 6 way/8 way, Double door	Each	1		
23	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 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)				
23.1	4 way, Double door	Each	3		
23.2	6 way, Double door	Each	1		

Item No	Details of Items	Unit	Quantity	Rate (In words & figures)	Amount Rs.) (in
24	Supplying and fixing following rating, double pole, 240 volts,isolator in the existing MCB DB complete with connections,testing and commissioning etc. as required.				
24.1	40 amps	Each	2		
25	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.				
25.1	40 amps	Each	2		
26	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.				
26.1	Single pole	Each	35		
26.2	Double pole	Each	2		
26.3	Triple pole	Each	5		
26.4	Triple pole and neutral	Each	3		
27	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc as required.	Each	15		
28	Supplying and fixing following rating, four pole, 415 volts,isolator in the existing MCB DB complete with connections,testing and commissioning etc. as required.				

Item No	Details of Items	Unit	Quantity	Rate (In words & figures)	Amount (in Rs.)
28.1	40 amps	Each	3		
28.2	63 amps	Each	1		
29	Supplying and fixing following rating, four pole, (three phase and neutral), 415 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.				
29.1	25 amps	Each	2		
29.2	40 amps	Each	1		
29.3	63 amps	Each	1		
30	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	5		
31	Supply and installing following size of perforated GI cable tray with perforations not more than 17.5% in convenient sections, joined with connectors, fixed to surface / suspended from the ceiling with GI suspenders including bolt & nuts, including required bends, tees, reducers etc as required.				
31.1	200 mm width x 50 mm depth x 1.6 mm thickness	m	30		

Item No	Details of Items	Unit	Quantity	Rate (In words & figures)	Amount Rs.) (in
31.2	300 mm width x 50 mm depth x 1.6 mm thickness	m	15		
32	Earthing with G.I. earth pipe 4.5m long, 40mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/ coke as required.	Each	2		
33	Earthing with G.I. earth plate 600 mm x 600 mm x 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 m long etc. with charcoal/ coke as required.	Each	2		
34	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.	m	20		
35	Supplying and laying 25 mm x 5 mm GI strip at 0.50 metre below ground as strip earth electrode, including connection/ termination with GI nut, bolt, spring, washer etc. as required (Jointing shall be done by overlapping and with 2 sets of GI nut, bolt & spring washer spaced at 50mm).	m	50		
36	Providing and fixing 25 x 5 mm GI strip on surface or in recess for connection etc as required.	m	50		
37	Providing and fixing 8 SWG dia G.I. wire on surface or in recess for loop earthing as required.	m	25		
38	Providing and fixing 4 mm dia copper wire on surface or in recess for loop earthing along with existing surface / recessed conduit / submain wiring/cable as required.	m	25		
39	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.				

Item No	Details of Items	Unit	Quantity	Rate (In words & figures)	Amount (Rs.)	(in
39.1	Above 35 sqmm and upto 95sqmm	m	40			
40	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.					
40.1	Above 35 sqmm and upto 95sqmm	m	10			
41	Laying of one no. PVC insulated and PVC sheathed / XLPE power cable of 1.1kV grade of following size on wall surface as required.					
41.1	Upto 35 sqmm (clamped with 1mm thick saddle)	m	50			
41.2	Above 35 sqmm and upto 95 sqmm (clamped with 25 x 3 mm MS flat clamp)	m	10			
42	Laying of one no. PVC insulated and PVC sheathed / XLPE power cable of 1.1kV grade of following size on cable tray as required.					
42.1	Upto 35 sqmm (clamped with 1mm thick saddle)	m	100			
43	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	5			
44	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.					
44.1	3.5 C x 50 sqmm	Each	2			

Item No	Details of Items	Unit	Quantity	Rate (In words & figures)	Amount Rs.) (in
44.2	4 C x 10 sqmm	Each	4		
44.3	3.5 C x 25 sqmm	Each	4		
44.4	2 C x 25 sqmm	Each	2		
45	Providing, laying and fixing 150 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.	m	10		
46	Supply of the following size 1.1kV grade XLPE insulated PVC sheathed, armoured Aluminium conductor power cable confirming to IS 7098 (part 1) ammended upto date.				
46.1	3.5 C x 50 sqmm	m	60		
46.2	4 C x 10 sqmm	m	35		
46.3	3.5 C x 25 sqmm	m	35		
46.4	2 C x 25 sqmm	m	20		

Item No	Details of Items	Unit	Quantity	Rate (In words & figures)	Amount Rs.) (in
47	KSEB Meter Board - Supply, Installation, Testing & Commissioning of Three phase meter box, cubicle type, made out of 2mm thick CRCA sheet / Polycarbonate, totally enclosed, IP54, wall / floor mounting, dust and vermin proof, powder coated, outdoor, compartmentalised, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system including internal wiring with suitable size wires, rotary handle, 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.				
	Switchgear & other Accessories				
	Space provision for accomodating 3 phase CT operated energy meter from KSEB with all connections, glass view panel, control MCB, lockable compartment etc.				
	3 nos. Suitable ratio CT (as per KSEB) with Acc. Class 0.5, 10VA in locakable compartment.				
	3 nos 125A cutout fuse unit with HRC fuse and 1 no. Neutral link.				
	1 no. 125A, FP, AC23A, 415V, 50Hz switch disconnecter fuse unit with Din type HRC fuse of suitable rating (as per KSEB) in separate cubical.				
	1 Set of phase indicating lamps, LED type, RYB.				
	1 Set of 2A 10kA C curve SP control MCB				
	The meter board shall have 125 Amp TPN busbars of high conductivity electrolytic quality Aluminium alloy, earth bus of required size, 4P terminal connectors, control wiring with all required accessories complete.				
		Job	1		
48	Supply & installation of 2x36W, indoor surface mounted mirror optics luminarie with P5 paralite louver with intergral control gear, 36W lamps, prewired complete with all necessary accessories suitable for operation on 230V, 50Hz AC supply as required (Havells LHCC01236425 / Bajaj BSMLA 01 236 CFL WEB2 / Wipro WVP 44236 SG).	Each	6		
49	Supply & installation of 15/18W LED indoor surface mounted down light fixture with diffuser for glare free light, aluminium heat sink, electronic driver complete with all necessary accessories suitable for operation on 230V, 50Hz AC supply as required (Havells LHEAAMP71L1W015 / Bajaj BCTBLS 18 ZT WH).	Each	30		
50	Supply of 1x11W compact and decorative luminaire with powder coated CRCA sheet steel housing with opal acrylic diffuser & decorative end caps, 11W CFL lamp, prewired complete with all necessary accessories suitable for operation 230V 50Hz AC supply as required. (Bajaj BJC 111 / Wipro WRP 21111 / Havells LHFOECF1OZ1W011).	Each	5		

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51	Supplying and fixing ISI marked PVC angle batten holder with 11W CFL lamp including all connection etc as required.	Each	5		
52	Supply of 20W LED Batten surface mounting luminare with Decorative box type fitting with high efficiency PMMA diffuser including all necessary accessories complete. (Havells LHEXBHP7PN1W020 / Wipro LL20-221-XXX-60-XX).	Each	35		
53	Supply of ceiling fan 1200mm 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	20		
54	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	3		
55	Supply & installation of 400mm sweep,Wall fan powder coated guard suitable for single phase 230 volt, 50Hz AC supply complete with motor, capacitor and all accessories as required complete. (Make : Usha Max Air white or equivalent)	nos	2		
56	Supply of heavy duty exhaust fan 450 mm sweep, single phase, 900 rpm of approved colour including all accessories as required (Crompton HDEF / Usha Turbo heavy duty / Havells Turbo Force)	nos	2		
57	Supply and Installation of 20 pair Telephone Terminal box with 20 pair krone IDC module with all accessories as required.	Each	1		
58	Supply and fixing following surface / recess mounting vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs with provision of 100A TP 16kA MCCB as incomer, interconnection between incomer MCCB and bus bars (but without MCBs / MCCB) as required.				
58.1	8 way TP	Each	1		

Item No	Details of Items	Unit	Quantity	Rate (In words & figures)	Amount Rs.) (in
59	Providing and fixing 10 SWG copper wire on surface or in recess for loop earthing along with existing surface / recessed conduit / submain wiring/cable as required.	m	30		
60	Supplying and fixing 40 /63 Amps TP MCB rating, 415 volts, "C" curve, miniature circuit breaker in the existing MCB DB complete with connections, testing and commissioning etc. as required.	Each	4		
61	Supply, installation, testing & commissioning of 16 port unmanaged Gigabit 10/100/1000 Mbps Switch, RoHS compliant with all required accessories.	Each	1		
62	Supply and installation of 6-24 port fully loaded patch panel 1U with cable manager, 4ft Cat 6 patch cord and all required accessories.	Each	1		
63	Supply and installation of 9 U wall mounted Network Rack made of steel, powder coated, front glass cover with PDU's, cable manager and cooling fans etc including all required accessories.	Each	1		
64	Supply and fixing UTP CAT-6 socket (RJ45) in suitable size GI box with modular plate and cover plate in front on surface or in recess including connections etc as required.	Each	10		
65	Supply & laying ISI marked electrical grade chequered type rubber mat of size 2m x 1m x 6 mm suitable for 415V power supply.	Nos	5		
66	Supply and providing First Aid Chart duly framed and placed in a conspicuous location for clear vision.	Nos	1		
67	Liaisoning, preparation of necessary electrical drawing & documents for submission in statutory body (electrical inspectorate, KSEB, PWD, PCB etc) and obtaining all approvals for the energisation of the building. Including all incidental expenses except the statutory fees payable to the statutory bodies in name of client with valid receipts.	Job	1		
	Total amount				