

Strengthening & Up gradation of Govt. Medical College, Kozhikode - Construction of Virology Lab

<u>PART II - ELECTRICAL WORKS</u>					
S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
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 surface / 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	32		
2	Wiring for circuit sub main wiring alongwith earthwire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
a	2x1.5 sq mm +1x1.5 sq. mm earth wire	m	250.00		
b	2x2.5 sq mm +1x 2. 5 sq.mm earth wire	m	450.00		
c	2x4 sq mm +1x4 sq.mm earth wire	m	200.00		

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
d	2x6 sq mm +1x6 sq.mm earth wire	m	200.00		
3	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	m	100.00		
4	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.				
a	20 mm	m	100.00		
b	25 mm	m	80.00		
5	Supplying 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.				

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
a	200mm x 250mm x 100mm deep	Each	5		
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	5		
7	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	12		

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
8	Supplying and fixing following size/ modules,GI box along with modular base, cover plate for modular switches in recess etc as required.				
a	1 or 2 module(75 mmx75 mm)	Each	12		
9	Supplying and fixing suitable size G. I 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,painting etc as required, (For light plugs to be used in non residential buildings).	Each	34		
10	Supplying and fixing suitable size G. I box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 15/16& 5/6 amps modular socket outlet and 15/16 amps modular switch, connection,painting etc as required.	Each	20		
11	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed steel/ PVC conduit as required.	m	180.00		
12	Supplying and fixing following way, single pole & 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)				

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
a	12 way Double door	Each	1		
13	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)				
a	4 way, Double door	Each	2		
14	Supplying and fixing of following way, 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 busbar, common neutral link, earth bar, din bar for mounting MCB's (but without MCB's and incomer) as required. (But without MCB/RCCB/Isolator)				
a	4 way, Double door	Each	1		

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
15	S/F 'C' series, MCB : 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	30		
16	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc as required.	Each	10		
17	Supplying and fixing following rating, double pole, 230 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	40 amps	Each	1		
18	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	40 amps	Each	2		

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
b	63 amps	Each	1		
19	Supplying and fixing following rating, double pole, 240 volts, residual current circuit breaker {RCCB}, having a sensitivity current up to 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	25 amps	Each	1		
20	Supplying and fixing following rating, four pole, 415 volts, residual current circuit breaker {RCCB}, having a sensitivity current up to 300 milli amperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
b	40 amps	Each	2		
c	63 amps	Each	1		

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
21	Providing and fixing 4mm dia Cu wire on surface or in recess for loop earthing along with existing surface / recessed conduit / submain wiring / cable as required.	m	60		
22	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.				
a	Upto 35 sq. mm (clamped with 1mm thick saddle)	m	120		
b	Above 35 upto 95 sq. mm (clamped with 1mm thick saddle)	m	60		
23	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.				
a	3.5C x 120 sqmm	Each	2		
b	3.5C x 50 sqmm	Each	2		

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
c	3.5C x 35 sqmm	Each	2		
d	4C x 16 sqmm	Each	2		
e	4C x 6 sqmm	Each	2		
24	Supplying and fixing of 40 amps rating, 240/415 volts, "C" curve DX3, 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	Double pole	Each	1		
b	Triple pole	Each	2		

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
25	Supply of following size 1.1 KV grade XLPE insulated, PVC sheathed, armoured Aluminium conductor power cable conforming to IS 7098 (Part 1) amended upto date.				
a	3.5C x120sqmm	m	40		
b	3.5C x 50sqmm	m	80		
c	3.5C x 35 sqmm	m	40		
d	4C x 16 sqmm	m	20		
e	4C x 6 sqmm	m	20		

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
26	Supply of 1x28 watts fluroscent tube fitting sleek with decorative end cap, powder coated CRCA steel channel complete with all electrical accessories like electronic ballat, lamp holder, 28W T5 lamp etc complete as required. (Philips TMS 540 HF / Wipro WRF 80128 SG / GE DMS 28 N N).	Each	6		
27	Supply and installation of 2x36 W recess mounted low glare luminaire with P5 paralite louvre & decorative perforations including 2 nos of 36 W CFL lamp, electronic ballast, hanging arrangements etc with all accessories as required. (Philips FBS 300 2xPL-L36W P5 EBT / Crompton CRFQ11236EB/P5 / Wipro WVP 24236 SGW).	Each	2		
28	Supply and installation of 2' X2' 36 W LED Recess type luminiarie with diffuser including all required mounting accessories complete(Wipro CRCO 10R036 HP57/Philiphs RC380B G2 LED 35S-6500 PSU OD WH/).	Each	8		
29	Supplying, fixing, connecting, testing and commissioning of recessed mounted 16-18W LED downlight fixture, suitable driver, with all necessary accessories etc as required. (Philips DN193B LED12S-6500 PSU WH S1 / Crompton LCDD -18-CDL/TL/WW / Wipro CRDL 11R017 HP57)	Each	4		
30	Supply and Installation ,testing and commissioning of IP65 ,60 W LED street light luminaire with pressure die cast aluminium housing,optic lens,integral electronic driver,stainless sheet toggle etc as required.The light fitting shall be suitability installed with all required accessories to poles as required. (Philips BRP410 LED CW 066 NR PC S1PSU /WIPRO LR10-611-XXX-/	Each	2		

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
31	Supply and fixing 400 mm sweep wall fan, swinging type with speed control and necessary adapter and installation items etc as required. (Make: Usha - Maxx Air / Crompton Hiflo LG / Orient 16WA01)	Each	4		
32	Supply and installation of 10 pair telephone terminal box made of sheet steel enclosure / Polycarbonate body with 10 pair krone module including all necessary accessories etc as required.	Each	1		
33	Supply & fixing of RJ 45 DATA socket in the existing GI modular box , including connections etc as required	Each	4		
34	Supply and installation of 2U wall mounted Network Rack made of steel, powder coated, front glass cover with PDU's, cable manager and cooling fans including all required accessories.	nos	1		

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
35	Supply, installation, testing and commissioning of 1.5 TR 5 star rated Air Cooled High Wall mounted Split Air Conditioner as per BEE consisting of high wall mounted type room unit (fan coil) with cordless remote control and one number copper outdoor condensing unit comprising of enegy efficient suitable rotary compressor for operation on single phase, 230 V, 50Hz supply, fixing the outdoor unit on a raised platform as per manufacturers recommendation and fixing of room (fan coil) unit on wall, standard 5 m distance refrigerant copper piping with 13mm nitrile rubber insulation, providing and making interconnection between room & condenser as per site conditions, comprising of 1" dia drain PVC pipe with 9mm nitrile rubber insulation upto 5m, canvas connections, full electrical cabling from power plug near indoor unit and to outdoor unit, ODU MS stand, first charge refrigerant gas, suitable stabilizer etc complete as required.	Each	4		
36	Supply, Installation, Testing & Commissioning of subpanel, cubicle type, made out of min 2mm thick CRCA sheet (load bearing), totally enclosed, IP42, free standing, floor mounting, dust and vermin proof, powder coated, indoor, 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 / PU etc. The panel shall include supply & installation of following switchgears, metering instruments and accessories as per specification.				
	Incomer				
	125A, TPN, switch disconnecter unit (Isolator), AC23, 415V, 50Hz, complete with handle assembly having door interlock - 1 no.				
	Busbar				
	1 Set of 160 A TPN busbars of high conductivity electrolytic quality Aluminium alloy and suitable size earthing conductor through out the panel for its earthing.				
	Instruments				

S. No	Item Description	Unit	qty	Rate of Rs infigures & words	Amount in Rs
	2A, C curve SP MCB - 3 nos.				
	RYB indication lamp, LED type - 3 nos.				
	1 No 3 phase Digital Multi function meter to read V, A, F, PF, kW, kWh Acc class 1.				
	200/5A, 10VA, class 1, resin cast CT - 1 set				
	Outgoing.				
	100A, TPN, 16kA, MCCB, thermal magnetic having adjustable O/L protection - 1 no.				
	63A, TPN, 16kA, MCCB, thermal magnetic having adjustable O/L protection - 3nos.	Each	1.00		
	Total - Part II - Electrical works				