

University of Kerala
Engineering Unit, Kariavattom

**TENDER SCHEDULE FOR REWIRING FOR THREE PHASE SUPPLY AND WIRING FOR CENTRALIZED UPS AT CAMPUS ADMINISTRATION BUILDING
OLD BLOCK AT UNIVERSITY CAMPUS, KARIAVATTAM.**

	Qty		<i>Specification</i>	Unit	Rate	Rate in words	Amount
1			Supply and wiring points according to IS 732-1989 using rigid PVC conduit of minimum size 20 mm with specials 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 FR PVC insulated stranded single core copper conductor cable 650V grade, including <i>providing switch board main and continuous earthing with No.14 SWG bare copper</i> , required quantity of copper earth socket, brass bolt and nut crimping/ soldering etc complete with suitable size modular type metal switch boxes, <i>modular type front plates (white)</i> etc. up to and including 6A modular type 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. <i>(Group B/ RoHS compliant modular accessories).</i>				
a	20	Nos	Single control light point with 6A, 3 plate ceiling rose	E	841.00	Rs. Eight hundred & forty one only	16,820.00
b	3	Nos	Single control light point without ceiling rose	E	823.00	Rs. Eight hundred & twenty three only	2,469.00

c	13	Nos	Single control ceiling fan point with 6 A, 3 plate ceiling rose & with socket size stepped electronic regulator.	E	1498.00	Rs. One thousand four hundred & ninety eight only	19,474.00
d	5	Nos	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.	E	483.00	Rs. Four hundred & eighty three only	2,415.00
e	3	nos	Call bell point with piano type 6 A bell push at one end and 6 A, 3 plate ceiling rose at other end	E	875.00	Rs. Eight hundred & seventy five only	2,625.00
2	5	Nos	Supply, installation, testing & Commissioning of mounting rail fittings (box type fittings) made out of CRCA sheet of minimum thickness 0.50 mm, powder coated / stove enameled 1 x 36/ 40 W FTL with light duty electronic ballast having THD < 33%, lamp holder etc duly wired up for use on 240 V single phase AC supply.	E	945.00	Rs. Nine hundred & forty five only	4,725.00
3	3	Nos	Supply and fixing angle / straight brass lined skirt type, <i>bakelite batten holder</i> without shade and giving connection etc as required	E	63.00	Rs. Sixty three only	189.00
4			Supply and providing the following types and power rated <i>lamps</i> in the existing fittings as required				
a	3	Nos	Normal size 15 W BC / ES retrofit CFL	E	167.00	Rs. One hundred & sixty seven only	501.00
5			Supply and fixing the following types of superior quality 250V A.C <i>call bell</i> on existing M.S. box and giving connections with required length of 3 core, 16 / 0.20mm 650/1100V grade PVC insulated and PVC sheathed round copper conductor flex wire conforming to relevant ISS or with the extended original wiring, earthing the MS box and making good the surface as required.				
a	1	No	Buzzer	E	110.00	Rs. One hundred & ten only	110.00
b	1	No	Call bell	E	145.00	Rs. One hundred & forty five only	145.00
c	1	No	Ding Dong bell	E	181.00	Rs. One hundred & eighty one only	181.00
			SH: SUB MAIN WIRING				
6			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	50	M	20 mm dia light gauge	m	83.00	Rs. Eighty three only	4,150.00

b	5	M	25 mm dia light gauge	m	95.00	Rs. Ninety five only	475.00
			<i>Supply & drawing copper wires</i>				
7			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	60	M	1.50 sq mm 1 run	m	45.00	Rs. Forty five only	2,700.00
b	10	M	1.50 sq mm 3 run	m	77.00	Rs. Seventy seven only	770.00
c	60	M	2.50 sq mm 2 run	m	81.00	Rs. Eighty one only	4,860.00
8			Supply and drawing the following sizes of multi-core PVC insulated & PVC sheathed 650/1100 V grade <i>copper conductor round flexible cables</i> conforming to IS 694 part I 1960 in the existing surface / recess conduit as required including giving necessary connections of the following sizes.				
a	5	M	3 core 1.00 sq. mm.	m	61.00	Rs. Sixty one	305.00
			<i>Group B modular accessories - S & F boxes</i>				
9			Supply & Fixing the following types/ sizes of boxes suitable for modular accessories in surface/ recess including making good the damages, colour washing etc as required (<i>Group B/ RoHS compliant</i>)				
a	3	Nos	3 module metal box in recess	E	180.00	Rs. One hundred & eighty only	
b	2	Nos	6 module metal box in recess	E	198.00	Rs. One hundred & ninety eight only	
10			Supply & Fixing the following types/ sizes of front plates on the existing modular boxes. (<i>Group B/ RoHS compliant</i>)				
a	3	No	3 module white/ off-white	E	116.00	Rs. One hundred & sixteen only	348.00
b	2	nos	6 module white/ off-white	E	152.00	Rs. One hundred & fifty two only	
11			Supply and Fixing the following modular switches & accessories in the existing front plates and giving necessary connections as required (<i>Group B RoHS compliant</i>)				
a	4	Nos	6 A SP 1 way switch	E	119.00	Rs. One hundred & nineteen only	
b	3	Nos	16 A SP 1 way switch	E	161.00	Rs. One hundred & sixty one only	483.00
c	3	Nos	6/16 A socket	E	223.00	Rs. Two hundred & twenty three only	669.00

d	4	Nos	6A 3 pin shuttered socket	E	157.00	Rs. One hundred & fifty seven only	
			<i>S & F Enclosures for MCB DB</i>				
12			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 required				
a	1	No	4 way (8+12) - three phase double cover (IP 42/43)	E	3329.00	Rs. Three thousand three hundred & twenty nine only	3,329.00
13			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			<i>S & F Mini break isolators</i>				
b	1	No	40 A four pole mini break isolator	E	716.00	Rs. Seven hundred & sixteen only	716.00
c	1	No	40 A, 4 pole, 30 mA RCCB	E	2780.00	Rs. Two thousand seven hundred & eighty only	2,780.00
d	12	Nos	6-32A(C curve)	E	219.00	Rs. Two hundred & nineteen only	2,628.00
e	1	No	50 A and 63 A, 10 kA, TP MCB (C curve)	E	1369.00	Rs. One thousand three hundred & sixty nine only	1,369.00
f	1	No	40 A, 10 kA, TP MCB (C curve)	E	1369.00	Rs. One thousand three hundred & sixty nine only	1,369.00
14			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 hard soil).				
a	40	M	4 core 50 sq mm	m	506.00	Rs. Five hundred & six only	20,240.00
b	5	M	4 core 35 sq mm	m	394.00	Rs. Three hundred & ninety four only	1,970.00

15			Supply & laying of one number PVC insulated and PVC sheathed armoured aluminium power cable of 1.1KV grade of the following sizes in the existing RCC/ HUME / STONE WARE/ GI/ DWC pipe as required.				
a	10	M	4 core 50 sq mm	m	417.00	Rs. Four hundred & seventeen only	4,170.00
b	6	M	4 core 35 sq mm	m	334.00	Rs. Three hundred & thirty four only	2,004.00
16			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	20	M	4 core 16 sq mm with factory made clamp	m	231.00	Rs. Two hundred & thirty one only	4,620.00
b	30	M	4 core 35 sq mm with factory made clamp	m	351.00	Rs. Three hundred & fifty one only	10,530.00
c	15	M	4c 50 sqmm	m	435.00	Rs. four hundred & thirty five only	6,525.00
17			<i>Supply and clamping</i> the following sizes of <i>PVC pipe</i> on wall with all required accessories including cutting and making good the walls, colour washing etc. as required as protective covering to cables.				
a	6	M	50 mm dia PVC pipe (8 Kgf / cm ²)	m	93.00	Rs. Ninety three only	558.00
b	6	M	40 mm dia PVC pipe (8 Kgf / cm ²)	m	71.00	Rs. Seventy one only	426.00
18	2	Nos	Supply route marker with 102mmx102mm <i>cast iron, spike</i> 5mm thick with inscription 'LT Cable' there on bolted / welded to 35x35x6mm angle iron 60cm long and fixing the same in ground as required.	e	194.00	Rs. One hundred & ninety four only	388.00
19			Supplying siemens / tropodur type nickel plated <i>Double 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	2	Nos	16 sq mm	E	319.00	Rs. Three hundred & nineteen only	638.00
b	2	Nos	35 sq mm	E	469.00	Rs. Four hundred & sixty nine only	938.00
c	2	Nos	50 sq mm	E	646.00	Rs. Six hundred & forty six only	1,292.00

20			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.				
a	4	Nos	4sqmm-16 sq mm with 12 mm wide x 1 mm thick clip	E	18.00	Rs. Eighteen only	72.00
b	4	Nos	25 sq - 95sq mm with 20 mm wide x 1.20 mm thick clip	E	27.00	Rs. Twenty seven only	108.00
21			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.				
a	8	Nos	16 sq mm	E	13.70	Rs. Thirteen & ps. seventy only	109.60
b	8	Nos	35 sq mm	E	16.00	Rs. Sixteen only	128.00
c	8	Nos	50 sq mm	E	19.00	Rs. Nineteen only	152.00
22	2	No	Supply and providing <i>plate earthing</i> as per IS 3043 <i>with 600x600x6.30 mm GI/CI earth plate</i> , 20 mm GI watering pipe fixed to the earth plate with 20 x 3 mm 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 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 300 x 300 x 300 mm) but excluding test joint, earth continuity conductor to the plate, and covering at the top. <i>(in hard soil)</i>	E	4102.00	Rs. Four thousand one hundred & two only	8,204.00
23			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				
a	2	No	300 x 300 x 6 mm cast iron gully trap with covering	E	267.00	Rs. Two hundred & sixty seven only	534.00
24			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 watering pipe etc as required.				
a	0.6		2 x 25 x 3 mm GI strip	m	165.00	Rs. One hundred & sixty five only	99.00

25			Supply and providing <i>earth lead from the test joint to the earth electrode</i> using the following sizes of conductors/ strips including cutting, drilling necessary holes (in case of strip) and fixing firmly with plate test joint etc as required.				
a	8	M	4.00 mm bare copper conductor (8 SWG)	m	85.00	Rs. Eighty five only	680.00
26			Supply and drawing bare <i>earthing conductors</i> of the following sizes <i>along with wiring/ cables</i> and giving connection as required.				
a	40	M	2.65 mm copper conductor (12 SWG)	m	43.00	Rs. Forty three only	1,720.00
b	100	M	3.15 mm copper conductor (10 SWG)	m	62.00	Rs. Sixty two only	6,200.00
c	20	M	4.00 mm copper conductor (8 SWG)	m	97.00	Rs. Ninety seven only	1,940.00
27			Supply and laying bare <i>earthing conductors</i> of the following sizes <i>laid 0.6 m below ground level including excavating trench</i> of suitable size and refilling etc. as required (<i>in ordinary soil</i>).				
a	25	M	4.00 mm copper conductor (8 SWG)	m	107.00	Rs. One hundred & seven only	2,675.00
27			supply of superior quality <i>copper earth socket</i> for the following sizes of earth conductor including crimping etc. as required.				
a	10	Nos	2.65 mm (12 SWG)	E	19.00	Rs. Nineteen only	190.00
b	4	Nos	3.15 mm (10 SWG)	E	19.00	Rs. Nineteen only	76.00
c	10	nos	4.00 mm (8 SWG)	E	23.00	Rs. Twenty three only	230.00
28			Supply and providing the following sizes of <i>bolt and nut</i> with washers on the existing MS box / earth bus etc. as required including drilling necessary holes as required				
a	10	Nos	25 x 3mm brass bolt & nut	E	17.00	Rs. Seventeen only	170.00
b	4	Nos	25 x 6 mm GI bolt & nut	E	10.70	Rs. Ten & ps. seventy only	42.80
29			Supplying , threading , laying and jointing of the following sizes of 'B' class <i>GI pipe</i> with all required accessories <i>in ground in the existing trench</i> as protective covering to earth leads.				
a	12	M	15 mm dia	m	90.00	Rs. Ninety only	1,080.00
b	50	M	50mm	m	323.00	Rs. Three hundred & twenty three only	16,150.00

30	0.6	m2	Supply and Installation of outdoor feeder pillar box made out of 2 mm MS sheet of 300x300x200 mm with hinged door construction and copium at the top and providing slotted angles for fixing fuse units and neutral links , painting the same with 2 coat of synthetic enamel paint over a coat of red oxide primer,fixing the same on the concrete post using suitable size painted flat iron clamps with bolt and nuts with washers etc as required.	m2	2473.00	Rs. Two thousand four hundred & seventy three only	1,483.80
30	3	Nos	Supply and providing 100 A porcelane type fuse unit in the existing slotted angle using suitable size bolt and nut with washers etcv as required.	E	269.00	Rs. Two hundred & sixty nine only	807.00
31	1	No	Supply and providing 100 A Bar type 2 way neutral link in the existing pillar box using suitable size bolt and nut with washers etc as required	E	275.00	Rs. Two hundred & seventy five only	275.00
32			<i>Painting letters or figures</i> of the following sizes with enamel paint as identification mark to SB, DB, panel board etc as required				
a	50	Nos	2.50 cm, 4 cm or 5 cm height	E	12.00	Rs. Twelve only	600.00
			Total				1,74,030.20

PAC Rs.1,74,030/- (Rs.One lakh seventy four thousand & thirty only)

I/We Agree to execute the work.

1.% below the estimate rate.

2.% above the estimate rate.

3. At the estimate rate.

UNIVERSITY ENGINEER

CONTRACTOR

