

UNIVERSITY OF KERALA

ENGINEERING UNIT, KARIAVATTOM

**TENDER SCHEDULE FOR THE MAINTENANCE AND OTHER RENOVATION WORKS AT CENTRE FOR AQUACULTURE RESEARCH & EXTENSION (CARE)
BUILDING OF THE DEPARTMENT OF AQUATIC BIOLOGY & FISHERIES AT KARIAVATTOM CAMPUS - RENOVATION OF ELECTRICAL INSTALLATION**

SI No	Qty	Unit	Description of Item	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	13	Nos.	Single control light point with 6A, 3 plate ceiling rose	E	841.00	Rupees Eight hundred and forty one only	10,933.00
b	7	Nos.	Single control ceiling fan point with 6 A, 3 plate ceiling rose & with socket size stepped electronic regulator.	E	1498.00	Rupees One thousand Four hundred and ninety eight only	10,486.00
c	5	Nos.	Single control light point without ceiling rose	E	823.00	Rupees Eight hundred and twenty three only	4,115.00
d	3	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	421.00	Rupees Four hundred and twenty one only	1,263.00
2			<i>Supply</i> , conveyance installation testing and commissioning the light fittings of following types made of CRCA with 0.5mm thickness complete with all accessories and lamps etc. directly on wall or ceiling with PVC <i>round block</i> neatly painted to suit the fitting and giving connection with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS and giving connections as required.				

a	7	Nos.	1x28w T5 fitting with APF electronic ballast suitable for continuous operation with THD <10%, power factor >0.98, RoHS compliant, high lumen tube .	Nos.	1717.00	Rupees One thousand Seven hundred and seventeen only	12,019.00
3	5	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	Rupees Sixty three only	315.00
4			Supply and providing the following types and power rated <i>lamps</i> in the existing fittings as required				
a	5	Nos.	Dwarf size 14 W BC / ES / E14 retrofit CFL	E	179.00	Rupees One hundred and seventy nine only	895.00
5	4	Nos.	Supply and fixing <i>cast aluminium stove enameled bulk head fitting</i> with deep drawn anodised aluminium body, epoxy powder coated, heat resistant prismatic glass cover suitable for 9 W 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 making good the surface as required.	E	601.00	Rupees Six hundred and one only	2,404.00
6			Supply, fabrication, conveyance and fixing the following sizes of B class <i>GI pipe bent to shape / cut and welded to shape</i> and fixing the same to wall / parapet using clamps as noted along with each size, painting with 2 coats of synthetic enamel paint over a coat of zinc chromate primer, making good the damages, colour washing etc as required (for the installation of outdoor light fittings).				
a	1	m	25 mm dia with HG company fabricated clamps	m	274.00	Rupees Two hundred and seventy four only	274.00
7	1	Nos.	Street light fitting single piece deep dawn aluminium housing with anodising inside & Acrylic cover 1x85 W 4 U Retro CFL B 22 with 85 W Retrofit CFL complete with all accessories(Havels make LHRC 24185099/ Crompton /Bajaj)	E	2646.00	Rupees Two thousand Six hundred and forty six only	2,646.00
8	7	Nos.	Supply and installation of suitable size <i>MS rod type fan clamp</i> as per IS 732 as required.	E	124.00	Rupees One hundred and twenty four only	868.00
9	7	Nos.	Conveyance, installation, testing and commissioning of ceiling fans of the following sizes using standard accessories <i>excluding resistance type regulator</i> , 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 required. (fans supplied from section store).	E	134.00	Rupees One hundred and thirty four only	938.00

10			<i>Supply, conveyance, installation, testing and commissioning</i> of the following sizes of <i>exhaust fans</i> in the existing opening, fixing necessary bolt and nuts, making good the damages etc. as required including giving connections with required length of 24/0.20mm PVC insulated and PVC sheathed 3 core round copper conductor flex wire conforming to relevant ISS.				
a	1	Nos.	200 mm, single phase, light duty exhaust fan in plastic body with self opening louvers	E	1538.00	Rupees One thousand Five hundred and thirty eight only	1,538.00
11			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	65	m	20 mm dia light gauge	m	83.00	Rupees Eighty three only	5,395.00
12			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	5	m	2.50 sq mm 4 run	m	134.00	Rupees One hundred and thirty four only	670.00
b	65	m	2.50 sq mm 2 run	m	81.00	Rupees Eighty one only	5,265.00
c	70	m	1.50 sq mm 1 run	m	45.00	Rupees Forty five only	3,150.00
13			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>ROHS</i>)				
a	6	Nos.	8 module metal box in recess	E	232.00	Rupees Two hundred and thirty two only	1,392.00
14			Supply & Fixing the following types/ sizes of front plates on the existing modular boxes. (RoHS)				
a	6	Nos.	8 module white/ off-white	E	187.00	Rupees One hundred and eighty seven only	1,122.00
15			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	6	Nos.	6 A SP 1 way switch	E	119.00	Rupees One hundred and nineteen only	714.00
b	12	Nos.	6 A Universal socket	E	147.00	Rupees One hundred and forty seven only	1,764.00
c	6	Nos.	16 A SP 1 way switch	E	161.00	Rupees One hundred and sixty one only	966.00
d	6	Nos.	6/16 A socket	E	223.00	Rupees Two hundred and twenty three only	1,338.00
16			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	Nos.	4 way (8+12) - three phase double cover (IP 42/43)	E	3329.00	Rupees Three thousand Three hundred and twenty nine only	3,329.00
17			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	1	Nos.	40 A triple pole mini break isolator	E	568.00	Rupees Five hundred and sixty eight only	568.00
b	1	Nos.	40 A, 4 pole, 30 mA RCCB	E	2780.00	Rupees Two thousand Seven hundred and eighty only	2,780.00
c	12	Nos.	6-32A(C curve)	E	219.00	Rupees Two hundred and nineteen only	2,628.00
18	30	m	Supply and providing two core 4sqr mm PVC to PVC aluminium weather proof wire clipped with no12swg GI wire and giving connections etc as required(for service main)	m	33.00	Rupees Thirty three only	990.00
19	1	Nos.	supply and providing 63A ,3 nos rewirable type porcelain fuse unit and one number two way neutral link on suitable size teak wood plank with necessary painted flat iron clamps fixing the same on concrete post using suitable bolt and nut with washers etc.asrequired	E	1312.00	Rupees One thousand Three hundred and twelve only	1,312.00

20	2	Nos	Supply and providing plate earthing as per IS 3043 with 600x600x6.30 mm GI/CI earth plate, 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. (in ordinary soil)	E	3917.00	Rupees Three thousand Nine hundred and seventeen only	7,834.00
21			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	Nos.	300 x 300 x 6 mm cast iron gully trap with covering	E	267.00	Rupees Two hundred and sixty seven only	534.00
23			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	0.5	m	2 x 25 x 3 mm GI strip	m	165.00	Rupees One hundred and sixty five only	82.50
24			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	25 x 3 mm GI strip	m	73.00	Rupees Seventy three only	584.00
25			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	20	m	4.75 mm copper conductor (6 SWG)	m	144.00	Rupees One hundred and forty four only	2,880.00
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	5	m	4.75 mm copper conductor (6 SWG)	m	133.00	Rupees One hundred and thirty three only	665.00
b	2	m	3.15 mm copper conductor (10 SWG)	m	62.00	Rupees Sixty two only	124.00

27			Supply and laying <i>strips</i> of the following sizes <i>along with wiring/cables</i> and giving connection as required.(for earth bus)					
a	0.3	m	25 x 3 mm copper strip tinned at the points of contacts	m	482.00	Rupees Four hundred and eighty two only	144.60	
TOTAL							Rs.	94,925.10

PAC Rs.94,925/- (Rupees Ninety four thousand Nine hundred and twenty five only)

- I/We agreed to execute the work.
1.% below the estimate rate.
 2. % above the estimate rate.
 3. At the estimate rate.

CONTRACTOR

UNIVERSITY ENGINEER

