## **UNIVERSITY OF KERALA**

## **ENGINEERING UNIT, KARIAVATTOM**

## TENDER SCHEDULE FOR ELECTRICAL WORKS IN CONNECTION WITH SETTING UP OF TISSUE ENGINEERING FACILITY IN THE DEPARTMENT OF BIO-CHEMISTRY AT KARIAVATTOM CAMPUS.

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	4	Nos	Single control light point without 6A, 3 plate ceiling rose	E	823.00	Rupees Eight hundred and twenty three only	3,292.00
b	2	Nos.	Single control light point with 6A, 3 plate ceiling rose	E	841.00	Rupees Eight hundred and forty one only	1,682.00

С	1	Nos	Single control ceiling fan point with 6 A, 3 plate ceiling rose & with socket size stepped electronic regulator.	Е	1498.00	Rupees One thousand Four hundred and ninety eight only	1,498.00
d	2	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	842.00
2	4	Nos	Supply of 18 W LED 5700K recess mounted down lighter with electronic driver complete as required Havels make ENDURA DL NEO Square SLIM/ Similar make of Bajaj/Crompton/Philips)	E	2085.00	Rupees Two thousand and Eighty five only	8,340.00
3	2	Nos	Supply and installation of UV tube light directly on wall and giving connections etc as required	E	806.00	Rupees Eight hundred and six only	1,612.00
4			Supply, conveyance, installation, testing and commissioning of ceiling fans of the following sizes using standard accessories excluding resistance type regulator, 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.				
a	1	No	1200 mm sweep - 5 star rated	E	1853.00	Rupees One thousand Eight hundred and fifty three only	1,853.00
5			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	10	m	20 mm dia light gauge	m	83.00	Rupees Eighty three only	830.00
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>in recess</i> including cutting the wall and making good the damages etc as required.				

a	10	m	20 mm dia light gauge	m	120.00	Rupees One hundred and twenty only	1,200.00
7			Supplying and clamping the following sizes of <i>corrugated PVC flexible conduit</i> with necessary compression gland with locking ring and check nut at termination pointed using suitable size GI / painted MS saddles spacing not exceeding 60 cms on surface including making good the damages, colour washing etc. as required.				
a	2	m	20 mm dia	m	52.00	Rupees Fifty two only	104.00
8			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.				
8.1	55	m	1.50 sq mm 1 run	m	45.00	Rupees Forty five only	2,475.00
8.2	10	m	1.50 sq mm 2 run	m	61.00	Rupees Sixty one only	610.00
8.3	20	m	2.50 sq mm 1 run	m	55.00	Rupees Fifty five only	1,100.00
8.4	55	m	2.50 sq mm 2 run	m	81.00	Rupees Eighty one only	4,455.00
8.5	20	m	4.00 sq mm 2 run	m	106.00	Rupees One hundred and six only	2,120.00
9			Supply and fixing 100 x 50 mm PVC Cable Management System with base and lid along with the following accessories conforming to IEC 61084/ BS 476 & 4678 on surface / recess including cutting the wall and making good the damages in case of recessed installation as required.				
a	9	m	100 x 50 mm CMS with base & lid	m	935.00	Rupees Nine hundred and thirty five only	8,415.00
b	4	Nos	Cable divider	E	108.00	Rupees One hundred and eight only	432.00

С	1	No	External Angle 90°	Е	139.00	Rupees One hundred and thirty nine only	139.00
d	2	Nos	End Cap	Е	92.00	Rupees Ninety two only	184.00
e	8	Nos	8 module mounting box	Е	251.00	Rupees Two hundred and fifty one only	2,008.00
10			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	4	Nos	2 module metal box in recess	Е	165.00	Rupees One hundred and sixty five only	660.00
b	1	No	8 module metal box in recess	Е	232.00	Rupees Two hundred and thirty two only	232.00
11			Supply & Fixing the following types/ sizes of front plates on the existing modular boxes. ( <i>Group B/ RoHS compliant</i> )				
a	4	Nos	2 module white/ off-white	Е	101.00	Rupees One hundred and one only	404.00
b	9	Nos	8 module white/ off-white	Е	187.00	Rupees One hundred and eighty seven only	1,683.00
12			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	9	Nos	6 A SP 1 way switch	Е	119.00	Rupees One hundred and nineteen only	1,071.00
b	9	Nos	16 A SP 1 way switch	Е	161.00	Rupees One hundred and sixty one only	1,449.00

С	18	Nos	6A 3 pin shuttered socket	Е	157.00	Rupees One hundred and fifty seven only	2,826.00
d	9	Nos	6/16 A socket	Е	223.00	Rupees Two hundred and twenty three only	2,007.00
e	2	Nos	32A A DP switch with LED	E	316.00	Rupees Three hundred and sixteen only	632.00
f	2	Nos	25 A socket	E	223.00	Rupees Two hundred and twenty three only	446.00
13			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	DP enclosure for independent mounting of MCB	Е	486.00	Rupees Four hundred and eighty six only	486.00
b	1	No	8 way single phase double cover (IP 42/43)	Е	1572.00	Rupees One thousand five hundred and seventy two only	1,572.00

14			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	2	Nos	40 A double pole mini break isolator	Е	356.00	Rupees Three hundred and fifty six only	712.00
b	1	No	40 A, 2 pole, 30 mA RCCB	E	235/00	Rupees Two thousand Three hundred and fifty seven only	2,357.00
С	6	Nos	6-32A( C curve)	E	71900	Rupees Two hundred and nineteen only	1,314.00
TOTAL Rs.				61,042.00			

## PAC Rs.61,042/- (Rupees Sixty one thousand and forty two only)

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

Sd/-

CONTRACTOR

**UNIVERSITY ENGINEER**