

# BOQ OF COST

INTERNAL ELECTRIFICATION OF  
UCO BANK KAHALGAON BRANCH  
I. ELECTRICAL WORKS-22.06.2024

## Part-A

SL. NO.	DIFFERENT HEADS OF WORK	AMOUNT IN RS.	REMARKS
1	Sub Head - I (WIRING )		Based on Schedule of Rates Government of Bihar.(2018) / M.R
2	SUB HEAD - II (SUPPLY OF CABLE MAIN & SUBMAIN)		Based on Schedule of Rates Government of Bihar.(2018) / M.R
3	SUB HEAD - III (SUPPLY & MAKING OF EARTHPIPS)		Based on Schedule of Rates Government of Bihar.(2018) / M.R

## Part-B

4	SUB HEAD - IV (SUPPLY OF FIXTURES & FANS)		Based on Schedule of Rates Government of Bihar.(2018) / M.R
5	SUB HEAD - V ( DATA CABLE FOR COMPUTER WIRING)		Based on Schedule of Rates Government of Bihar.(2018) / M.R
	<b>TOTAL</b>		



<b>(REQUIRE INVERTOR POWER FOR LIGHT POINT LOAD IF YOU REMOVE THE GENRATOR)</b>					
SL. NO.	ITEM OF WORK	UNIT	QTY	WATTS	TOTAL WATTS
1	Power consume of 9/11 watt LED lamp, types of lamp in the existing electrical fitting/ fixtures etc. as required	Each	11	9	99
2	Power consume of 20/22W 6500k LED 4Feet Tube Luminaries batten fitting complete with electronic driver and LED tube etc.	Each	2	22	44
3	Power consume of 375 mm 230 volts sweep Exhaust fan with plastic body and blade, self closing louvers in this fan, to provide off mode protection against birds etc as per req.	Each	3	60	180
4	Power consume of 1200 mm sweep ceiling fan three coat metallic paint system, high speed, wider tip blades, improved performance even at low voltage inclusive of all taxes, royalty etc.	Each	2	60	120
6	Power consume of electronic musical call bell suitable for single phase 230 volts, commissioning and connection etc.	Each	1	40	40
7	Power consume of 400 mm, 230 v A.C. wall/cabin fan including fixing the bracket, making connection, testing, commissioning etc	Each	10	60	600
8	Power consume of ceiling mounted 12 watt LED vertical downlighter complete with all accessories and replaceable electronic driver, etc.	Each	10	12.00	120.00
9	Power consume of indoor recess mounting 36 watt LED flat panel luminaire suitable for armstrong / grid ceiling and complete with electronic driver etc.	Each	22	36.00	792.00
	<b>TOTAL SUB HEAD-VI</b>				<b>1995</b>
<b>TOTAL LIGHT POINT LOAD =1995 WATTS SAY REQUIRE INVERTOR 3KVA/220VOLTS IF YOU REMOVE THE GENRATOR</b>					

# ESTIMATE OF ELECTRICAL WORKS

## SUB HEAD - I (WIRING)

### Part-A

SL. NO.	ITEM OF WORK	UNIT	QTY	RATE	AMOUNT
1. 1.3.3 (C)	Wiring for Light / Fan/Wall fan / Exhaust Fan / Call Bell point with 1.5sq.mm FR PVC insulated Copper Conductor single core cable in recessed medium class PVC Conduit in surface / recessed Mouldaler type switch. Mouldaler Plate, suitable size PVC/GI box etc. (Group-C) as required, all complete as per instructions of Elec.Er. / Architect.	Light Point	46		
2. 1.7.1	Wiring for switch board and 5A socket power circuit/submain wiring along with earth wire with 2x1.5 sq. mm + 1x1.5 FR PVC insulated copper conductor single core cable in surface / recessed medium PVC conduit. as required, all complete as per instructions of Elec.Er./ Architect.	Mtr.	152		
3. 1.7.2	Wiring for Computer Raw and UPS circuit/submain wiring for 5A power point along with earth wire with 2x2.5 sq. mm + 1x2.5 FR PVC insulated copper conductor single core cable in surface / recessed medium PVC conduit. as required, all complete as per instructions of Elec.Er./ Architect.	Mtr.	212		
4. 1.7.3	Wiring for circuit/submain wiring for 15A power and A.C. power point along with earth wire with 2x4 sq. mm + 1x4 FR PVC insulated copper conductor single core cable in surface / recessed medium PVC conduit. as required, all complete as per instructions of Elec.Er./ Architect.	Mtr.	132		
5. 1.7.3	Supply & Fixing for sub main from L.T Penal to Light point D.B's- 2 x 4sq. mm PVC insulated copper conductor single core cable in recessed PVC conduit with 1x4 sq mm PVC insulated copper conductor single core cable for loop earthing as required, all complete as per instructions of Elec.Er / Architect. .	Mtr.	20		
6. 1.7.3	Supply & Fixing for sub main from L.T Penal to Raw point D.B's- and UPS Panel to UPS D.B'S.- 2 x 4sq. mm PVC insulated copper conductor single core cable in recessed PVC conduit with 1x4 sq mm PVC insulated copper conductor single core cable for loop earthing as required, all complete as per instructions of Elec.Er / Architect. .	Mtr.	36		
7. 1.24.1 1.24.4	Supplying and fixing 5 pin, 5/6 amps socket outlet and 5/6 amps Modular type switch connection etc up-on switch board, as required.all complete as per instructions of Elec.Er / Architect.	Set	11		
8. 1.24.6	Supplying and fixing 1 nos Modular type 5Amp 5 pin socket with 5Amps switch, Modular Plate, suitable size PVC/G.I. box as required. all complete as per instructions of Elec.Er. / Architect.	Set	10		
9. 01.32	Supplying and fixing 1 nos Modular type 15Amp 6 pin socket with 15Amps switch, Modular Plate, suitable size PVC/G.I. box as required. all complete as per instructions of Elec.Er. / Architect.	Set	1		
10. 02.19	Supplying and fixing 20Amps 240 volts 3PN MCB industrial type, power socket with 25Amp SPN MCB and 25 Amps Top in proper size steel box and plate as required. all complete as per instructions of Elec.Er. / Architect.	Set	7		
11:03:09	Supplying and drawing fixing 8 SWG copper conductor wire for loop earthing as required.	Mtr.	36		



12. 1.104	Supplying and drawing fixing 6SQ.MM copper conductor wire for loop earthing as required.	Mtr.	32		
13. M.R	S/I/T/Commissioning of 5 Kva UPS- PRIMARY & SECONDARY consist of:-40Amps SPN incomer MCB with 60 amps TPN connector and outgoing 2 Nos 25Amps SPN power socket in MS Enclosure box as required, all complete as per instructions of Bank / Architect.	Set.	1		
14. Computer	Supplying and fixing Computer RAW and UPS power supply with 2nos.black and 2nos.white type 5Amp 5 pin socket with 5Amps switch, Modular Plate, suitable size PVC/G.I. box as required. all complete as per instructions of Elec.Er. / Architect. (11A+11B+11C+11D)	Set	7		
14A. 1.24.1	Supplying and fixing 5/6Amps modular switch as required.(4x81.00=324.00)	Each	4		
14B. 1.24.4	Supplying and fixing 5/6Amps modular 3 pin , 5/6 amps socket outlet as required.(4X122.00=488.00)	Each	4		
14C. 1.27.6	Supplying and fixing 12 modules, GI box along with modular base and cover plate for modular switches in recess etc as required.(1X423.00=423.00)	Each	1		
14D. 1.28.6	Supplying and fixing 12Modular base and cover plate on existing modular metal boxes etc. as required.(1X218.00=218.00)	Each	1		
15. 01.33	Supplying and fixing ceiling rose 2 pin 6amps on existing junction box/ wooden block including connection etc. as required.	Each	9		
16. 01.34	Supplying and fixing brass/ angle holder on existing junction box/ wooden block including connection etc. as required.	Each	11		
17. 1.24.6	Supplying and fixing Telephone socket outlet modular switch/socket on the existing modular plate and switch box including connections but excluding modular plate etc. as required.	Set	2		
18. 1.27.1	Supplying and fixing Telephone 1 or 2 modular 75mmx75mm size / modular, GI box along with modular base and cover plate for modular telephone socket and bell push switch in recess etc. as required.	Set	2		
19. 1.27.1	Supplying and fixing Telephone 1 module modular base and cover plate on existing modular telephone socket and bell push switch's GI metal boxes in recess etc. as required.	Set	2		
20. 1.16.2	Supplying and drawing two pair 0.5 sq. mm Two pair FR PVC insulated annealed copper conductor, unarmoured telephone cable in the existing surface / recessed PVC conduit as required.	Mtr.	68		
21. 1.24.8	Supplying and fixing call-bell modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.	Set	1		
22. 1.25.0	Supplying and fixing stepped type electronic fan regulator on the existing modular plate/ switch box including connections but excluding modular plate etc. as required.	Set	2		
23. 2.8.9	Supplying & fixing of Single phase 2+12 way double door S.P.N. D.B board for circuit distribution on surface / recess double door complete with tinned copper bus bars, neutral link, earth bar, din bar, detachable gland plate inter connections including painting, earthing etc. as required. all complete as per instructions of Elec.Er. / Architect.	Each	3		



24. 2.17.2	(m) Supplying and fixing 40A rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.	Each	3		
25	Supplying & fixing of following rating and series miniature circuit breaker and residual current circuit breaker in the existing MCB DB complete with connection testing and commissioning etc. as required. all complete as per instructions of Elec.Er. / Architect.				
25. 2.12.1	(i) 06A/10A, SP, M.C.B-'B' (Light)	Each	14		
25. 2.12.2	(ii) 10A,SP, MCB-'C'(UPS & RAW) -for three computer	Each	18		
25. 2.12.3	(iii) 32A/40A SPN MCB-'B'	Each	3		
26. 2.5.4	Providing and fixing 300amps capacity busbar chamber with 4 strips of suitable size made of copper, heavy duty, complete with all accessories including connections, earthing the body etc. as required.	Set	1		
27. 2.5.3	Providing and fixing 200 amps capacity busbar chamber with 4 strips of suitable size made of copper, heavy duty, complete with all accessories including connections, earthing the body etc. as required.	Set	1		
29. 2.4.3	Providing and fixing 125amps, rating and 16 ka.breaking capacity MCCB in made of existing 1.6mm thick sheet steel enclosure duly painted with powder coating, wall straps cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.	Each	1		
30. 2.12.3	Providing and fixing 32 amps, rating and 10 ka.breaking capacity MCB, SPN in made of existing 1.6mm thick sheet steel enclosure duly painted with powder coating, wall straps cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.	Each	4		
31. 2.7.5	Providing and fixing 63A capacity four pole ONload/panel mounted changeover switches inside the existing cubical panel board including drilling holes in cubicle panel, making connections etc. as required.	Each	1		
32. M.B	Providing and fixing 32A/32A capacity four pole ONload/panel mounted ACCL OR ATS (Auto Transfer switche) inside the existing cubical panel board including drilling holes in cubicle panel, making connections etc. as required.	Each	1		
33. 02.20	Providing and fixing M.V danger notice plate of 200mmx150mm made of mild steel at least 2mm thick, vitreous enameled white on both side and with inscription in singale red colour on front side in excluding cubical panel as required.	Each	1		
34. 8.10.4	Supply and fixing digital voltmeter, three phase in the existing cubical panel board including drilling holes in the panel board, making connection etc as required.	Each	1		
35. 8.10.6	Supply and fixing digital Ammeter, three phase with C.T. coil in the existing cubical panel board including drilling holes in the panel board, making connection etc.as required.	Each	1		
36. 2232	Providing and fixing C.T. coil as per require load in amps in side in excluding cubical panel as required.	Each	3		
37. 2319	Providing and fixing selector switch for analog ammmeter as per require load in amps on front side in excluding cubical panel as required.	Each	1		
38. 2318	Providing and fixing Pilot lamp for indicator on front side in excluding cubical panel as required.	Each	3		



39. 8.10.2	Providing and fixing wall mounting iron sheet cubical panel board, fabricated with 16 SWG guage Iron sheet, suitable size for panel mounted disconnector, including, busbar chamber, insulator, nut-bolt and painting etc. as per require. size made 4'-0"x 5'-0"x12"=20sq.feet.	Sq.feet	20		
40. 2.12.2	Providing and fixing 25 amps, rating and 10 ka.breaking capacity MCB. SPN for A.C power supply in made of existing 1.6mm thick sheet steel enclosure duly painted with powder coating, wall straps cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.	Each	5		
41. MR	Providing and fixing 63 Amps phase selector switch-1nos.( make-KEC, L&T or Grafe ) for analog with light point bus-bar as per require load in amps on front side in excluding cubical panel as required.	Set	1		
	<b>TOTAL SUB HEAD-I</b>				

SUB HEAD - II (SUPPLY OF CABLE MAIN & SUBMAIN)					
SL. NO.	ITEM OF WORK	UNIT	QTY	RATE-Rs.	AMOUNT-Rs
1	Supply & laying for sub main from L.T line & DG line following sizes and core PVC/XLPE insulated PVC sheathed, heavy duty, armored electrical cable with aluminum conductor for working voltage up to and including 1100 volts (Conforms to IS: 1554, part-1) with 8 no. SWG die bare copper conductor wire for loop earthing, proper laying on wall or roof, thumbnail clipping and use proper size cable gland for cable sport etc. as required. all complete as per instructions of Elec. Er. / Architect. (FINOLEX, R.R. CABLE, L&T)				
2205	(i) 25 sq. mm. 3.5 core (AL.) for L.T. line.	Mtr.	0		
2203	(ii) 16sq. mm. 2 core (AL.) for D.G. line.	Mtr.	0		
	<b>TOTAL SUB HEAD-II</b>				
SUB HEAD - III (SUPPLY & MAKING OF EARTH PITS)					
SL. NO.	ITEM OF WORK	UNIT	QTY	RATE-Rs.	AMOUNT-Rs
1. 3.21 OR 3.6+3.8+3.9	Providing chemical/mineral maintenance free earthing system comprising of copper coated earth electrode 3 metre length and 17.2 mm outer dia along with 25 kg earth conductivity enhancing back fill mineral compound for earth inspection pit etc. as required. <b>OR</b> Supply. Fixing & Hoic cutting in earth as per drawing of (CU) (600mm X 300mm X 3mm) plate electrode earth, all complete as per specifications and drawings attached. (1No. EARTH for UPS Main neutral only.) -The rate shall be inclusive of submission of TEST REPORT (2 Ohm) of each earth pit and <u>-Caution Note -The rate shall be inclusive of submission of TEST REPORT (2 Ohm) of each earth pit and TESTING shall be carried out in front of Officials / Consultant.</u>	Each	0		
	<b>TOTAL SUB HEAD-III</b>				<b>0.00</b>
SUB HEAD - IV (SUPPLY OF FIXTURES & FANS)					
SL. NO.	ITEM OF WORK	UNIT	QTY	RATE-Rs.	AMOUNT-Rs
1 6.1.33	Supplying and fixing of 10/12 watt LED lamp types lamp in the existing electrical fitting/ fixtures etc. as required	Each	0		
2. 5.9.3	Supplying, Installation, testing and commissioning wall mounted 20/22W 6500k LED 4Feet Tube Luminaries batten fitting complete with electronic driver and LED tube etc. directly on wall/ceiling including connection with 1.5 sq. mm. FR PVC insulated copper conductor cable and earthing the body etc. as require	Each	0		
3. 8.11.5	Supplying and fitting 375 mm 230 volts sweep Exhaust fan with plastic body and blade, self closing louvers in this fan, to provide off mode protection against birds etc as per req. approved equivalent.	Each	3		
4. 8.11.2	Supplying and fitting 1200 mm sweep ceiling fan three coat metallic paint system, high speed, wider tip blades, improved performance even at low voltage inclusive of all taxes, royalty etc. connection with 1.5 sq. mm. FR PVC insulated copper conductor cable and earthing the body etc. as per require. approved equivalent.	Each	3		
5. 1.38	Supplying and fitting electronic musical call bell suitable for single phase 230 volts. commissioning and connection etc. as per require. approved equivalent.	Each	1		



6. 8.11.7	Supply and installation of 400 mm, 230 v A.C. wall/cabin fan including fixing the bracket, making connection, testing, commissioning etc as required,	Each	10		
7. 5.11.4	Supplying and fixing ceiling mounted 12 watt LED vertical downlighter complete with all accessories and replaceable electronic driver, directly on false ceiling including connection with 1.5 sq.mm FR PVC insulated copper conductor cable and earthing the body etc. as required. approved equivalent.	Each	0		
8. 5.11.1	Supplying and fixing indoor recess mounting 36 watt LED flat panel luminaire suitable for armstrong / grid ceiling and complete with electronic driver etc. directly on false ceiling including connection with 1.5 sq.mm FR PVC insulated copper conductor cable and earthing the body etc. as required	Each	17		
<b>TOTAL SUB HEAD-IV</b>					



<b>SUB HEAD - V ( DATA CABLE FOR COMPUTER WIRING)</b>					
SL. NO.	ITEM OF WORK	UNIT	QTY	RATE-Rs.	AMOUNT-Rs
<b>D</b>	<b>UPS / COMPUTER / TELEPHONE WIRING:</b>				
1. M.R.	S/I/T/Commissioning of 2 Meter Patch Cord as required, all complete as per instructions of Bank / Architect.	Set.	7		
2. M.R.	Supplying/fixing of Cat-6 wire with 20mm dia PVC/G.I pipe all complete or as per instruction Ele.Er./Architect	Mtr	242		
3. M.R.	Supply & Fixing of RJ 45 in I.O. box & jack from Net-working switch Hub in each computer set all complete as per instnction of Ele.Er./Arch.	Set.	7		
4. M.R.	Supply & Fixing of 1 Nos. I.O. box & jack from Net-working switch Hub in each computer set all complete as per instnction of Ele.Er./Arch.	Set	7		
5. M.R.	S/I/T/C of CAT-6- 24 Port Switch.hub-Make-D-LINK.	Set	0		
10. M.R.	S/I/T/C of CAT-9 U Jack Panel set all complete as per instnction of Ele.Er./Arch..	Set	0		
11. M.R.	S/I/T/C of CAT 9 U Jack Rack set all complete as per instnction of Ele.Er./Arch..	Set	0		
12. M.R.	S/I/T/C of power line strip with 6nos.5Amp Moudlar type socket from UPS set all complete as per instnction of Ele.Er./Arch..	Set	0		
<b>TOTAL SUB HEAD-V</b>					

