

BILL OF QUANTITY OF ELECTRICAL WORKS N/W: PROVIDING ELECTRICAL WORKS FOR UCO BANK, ZONAL OFFICE, PATNA					
BRANCH					
A	SUB HEAD-I (WIRING)				
B	SUB HEAD - II (PUBLIC ADDRESS SYSTEM)				
C	SUB HEAD-III (DISTRIBUTION BOARDS & PANELS)				
D	SUB HEAD-IV (SUPPLY OF FIXTURES & FANS)				
E	SUB HEAD - V (ERECTION OF FIXTURES)				
F	SUB HEAD-VI (SUPPLY OF CABLE MAIN & SUBMAIN)				
G	SUB HEAD-VII (SUPPLY & MAKING OF EARTHPIITS)				
TOTAL-					
G.S.T(Extra as applicable)					
SL. NO.	ITEM OF WORK	UNIT	QTY	RATE	AMOUNT
SUB HEAD - I (WIRING)					
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq mm FR PVC insulated copper condtr single core cable in surface/ recessed PVC conduit with modular switch, modular plate, suitable GI box and earthing the 3rd point with 1.5 sqmm FRLS PVC insulated copper conductor single core cable etc as required.	Each	165		
2	Wiring for A.C. Point with 2 x 4 sqmm FR PVC insulated copper conductor single core cable in surface/ recessed PVC conduit / PVC Casing - n Capping along with one no 4 sq mm FR PVC insulated copper conductor single core cable for loop earthing as required.	Mtr.	475		
3	Wiring for Light D.B.CKT with 4 x 4 sqmm FR PVC insulated copper conductor single core cable in surface/ recessed PVC conduit / PVC Casing - n Capping along with 2X6 sq mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Mtr.	165		
4	Sub main wiring between UPS to UPS feed DB with 2 x 6 sqmm FR PVC insulated copper conductor single core cable in surface/ recessed PVC conduit / PVC Casing - n Capping along with 1X 6 sq mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Mtr.	135		
5	Sub main wiring from Panel to RAW Power feed DB with 4 x 6 sqmm FR PVC insulated copper conductor single core cable in surface/ recessed PVC conduit / PVC Casing - n Capping along with 2X6 sq mm FRLS PVC insulated copper conductor single core cable	Mtr.	135		
6	Sub Main Wiring from LT Panel to UPS Panel with 4 x 10 sqmm FR PVC insulated copper conductor single core cable in surface/ recessed PVC conduit / PVC Casing - n Capping along with 2X6 sq mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Mtr.	75		
7	Wiring for UPS and RAW feed computer point with 2 x 2.5 sqmm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit / PVC Casing - n Capping along with one no 2.5 sq mm FR PVC insulated copper conductor single core cable for loop earthing as required. (3 outlets, i.e 3 points each with 1 switch and 3 sockets shall be under one circuit	Mtr.	1950		
8	Light Circuit wiring with 2 x 1.5 sqmm FRLS PVC insulated copper conductor single core cable surface/ recessed PVC conduit / PVC Casing - n Capping along with one no 1.5 sq mm FR PVC insulated copper conductor single core cable for loop earthing as required.	Mtr.	295		

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9	15A/16A Power point Circuit wiring with 2 x 2.5 sqmm FRLS PVC insulated copper conductor single core cable surface/ recessed PVC conduit / PVC Casing - n Capping along with one no 2.5 sq mm FR PVC insulated copper conductor single core cable for loop earthing as required.	Mtr.	125		
10	Supply & fixing suitable size GI box with modular plate and cover in front on surface/ in recess i/c pvdg & fixing 5 pin 5/6 amp modular socket outlet and 5/6 amps modular switch, connection, painting etc as reqd.	Set	30		
11	Supplying and drawing 1X2.5 sqmm size of FR PVC insulated copper conductor, single core cable in the existing surface/recessed PVC conduit as required. (Invertor wiring)	Mtr.	550		
12	Wiring for main line input for Invertor charging with 3x4sqmm copper wire	Mtr.	40		
13	Supply & fixing of Input output for Invertor having overload protection starter, one no 20/25 amp SPN MCB and socket outlet, all fixed on a modular plate complete with metal box and recessed in wall as required.	Set	2		
15	Supply & fixing suitable size GI box with modular plate and cover in front on surface/ in recess i/c pvdg & fixing 6 pin 15/16 amp modular socket outlet and 15/16 amps modular switch, connection, painting etc as reqd.	Set	5		
16	Supply & fixing remote controlled call bell buzzer suitable for 230 V AC/ Battery operated with remote type bell push as reqd.	nos.	5		
17	Supply & fixing of computer point with 3 no. 5 pin 5/6 amp modular socket with modular type switch for UPS Power and 2 no. 5 pin 5/6 amp modular socket with modular type switch phenolic laminated sheet suitable size PVC/G.I. box. As per instruction of Bank/Ele.Er./as required.	nos.	64		
18	Supply & fixing of approved make including square face plate and M.S. housing box with RJ-45 socket etc complete in all respect including cat-6 Data cable conduits, identification of the hub				
	a) RJ-45 socket	Set.	62		
	b) Cat-6 Data cable with PVC conduit	Mtr.	2500		
19	Supply & fixing of approved make including square face plate and				
	a) RJ-11 socket	Set.	62		
	b) Supplying and drawing 2 pair 0.5 sqmm FR PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/PVC conduit as required.	Mtr.	2500		
20	Supplying and drawing fixing 8 SWG copper conductor wire for loop earthing as required.	Mtr.	110		
21	Supply & fixing Commissioning of 20 line Net-working hub all complete as required.	Set.	4		
22	Supply & fixing Commissioning of 2 Meter Patch Cord as required, all complete as per requirement.	Set.	62		
23	Supply & fixing of following sizes of PVC conduit along with				
	a) 20 mm	Mtr.	50		
	b) 25 mm	Mtr.	50		
TOTAL SUB HEAD-I					
SUB HEAD - II (PUBLIC ADDRESS SYSTEM)					
1	Supply, installation, testing & commissioning of 2 zone PA Mixture Amplifier capable of delivering 500 W RMS power output, built-in fan for temperature control, built in line matching transformer and complete wireless Mic-2 no and DVD Palyer ETC as required as per instruction of Bank/Architect/ Electrical Consultants. (Ahuja Cat. No. Sonato TZA-5000DP 500W Dual Zone Amplifier)	1	Set		
2	Supplying, assembling, erection, testing & commissioning of 10 Watt RMS Speaker with metal grill with LMT complete with ceiling mounting arrangements complete as per specifications (Ahuja Cat. No.- CSX-6101T).	12	Each		

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3	Supplying and drawing following sizes of FRLS PVC insulated flexible copper conductor, single core cable in the existing surface/ recessed PVC/steel conduit/ PVC casing and capping as required.				
3.1	3 x 1.5 Sq.mm.	240	Meter		
4	Supplying, laying, terminating & connecting of 2 core 24/0.20mm flexible copper conductor cable with terminations, labour and other petty material etc. complete in all respect.	240	Metre		
5	Fabrication, supplying & installing of M.S. rack of suitable size duly powder coated to accommodate item as above design submitted by vendor approved by Bank/Architect/Electrical Engineer.	1	Each		
6	Supply installation testing & commissioning of Projector for office use ceiling/wall mounted with screen & proper installatoin and alignment of focus on projector necessary wiring & connection suitable for connection with computer/Laptop/USB all complete as required as per instruction of Bank/Ele.Er/Architect.(Make-EPSON-X05 XGA3LCD)	1	Set		
TOTAL SUB HEAD-II					
SUB HEAD - III (DISTRIBUTION BOARDS & PANELS)					
1	Supplying & Fixing following ways three pole and neutral sheet steel MCB DB, 415 volts on surface/ recessed complete with tinned copper busbar, neutral busbar, earth bar din bar detachable gland plate interconnections, phosphatised and powder painted i/c earthing etc as reqd. (But without MCB / RCCB/Isolator)				
	a) 8+24 Way double door TPN DB Suitable for MCCB as Incomer.	Each	4		
	b) 4+18 Way double door TPN D.B.	Each	3		
	c) 16 Way double door SPN DB.	Each	3		
2	Supply & fixing 5 amps to 32 amps rating 240 V 'C' series MCB suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc as reqd.				
a	63 A 25 KA FP MCCB	Each	4		
b	40 A 10 KA FP MCB "C"	Each	3		
c	40 A 10 KA DP MCB "C"	Each	2		
d	6/10 A 10 KA SP MCB "C"	Each	130		
3	Supply & fixing of indoor cubicle extensible type fully compartmentalized Distribution panel suitable for operation on 415 volts 50 Hz 3'phase 4 wire AC distribution system, suitable for 35 KA short circuit rating, conforming to IP:42 degree of protection, made up of 1.6 mm thick CRCA sheet, wall/ floor mounted, dust & vermin proof enclosure, having hinged and earthed cover on front, having neoprene gasket/ katings stuck to the doors, duly painted with 65- 75 microns thick dry epoxy powder paint after 7 tank process of degreasing, derusting etc comprising of the following switchgears complete with all interconnections with suitable size of copper strip/hard drawn PVC insulated copper cable i/c keeping the panel in position, minor civil works as necessary, painting, sign writing etc complete as required (as per specifications of Panel attached) TEST REPORT: FOLLOWING REPORTS HAVE TO BE PROVIDED BY THE VENDOR AT THE TIME OF SUBMISSION OF BILL:. 1) FINAL AS BUILT PLAN IN THREE COPIES DRAWN TO THE SCALE, PRINTED IN CASE OF CAD AND BLUE PRINT, IN CASE OF MANUAL DRAWING. 2) QUALITY REPORT INDICATING THE ITEMS USED WITH THEIR MAKES. 3) PANEL MANUFACTURER'S CPRI TEST REPORT FOR SHORT CIRCUIT (50KA), IP TEST & TEMPERATUE RISE. 4) ROUTINE TEST REPORT OF PANEL FOR IR & HV TEST. 5) GUARANTEE/WARRANTY CARD OF PANEL MANUFACTURER.	nos.	1		
	INCOMING:				
	a) 160 amp 4 pole MCCB not less than 36 KA having Thermo magnetic type release for a range of 80% to 100% for Overload and short circuit complete with rotary handle etc as reqd.: 1 no				
	b)160 amp 4 pole heavy duty I-II-I type cubicle changeover switch: 1 no				
	METERING:				

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	a) Multifunctional meter displaying A/V/PF & Hz along with 3 nos Suitable size CTs & HRC type protection fuse etc as reqd: 1 nos				
	c) LED type phase indicating lamp in phase distinguishing colors with HRC fuse : 6nos				
	BUS BAR:				
	Main Bus Bar: 4 strip 200 amp bus bar made of electrical grade aluminium strip enclosed in separate bus bar chamber, provided with DMC/ SMC bus bar support duly insulated with heat shrinkable sleeves in distinct colours as reqd: 1 set				
	Emergency Load Bus Bar: 4 strip 200 amp bus bar made of electrical grade aluminium strip enclosed in separate bus bar chamber, provided with DMC/ SMC bus bar support duly insulated with heat shrinkable sleeves in distinct colours as reqd: 1 set				
	Current Density of bus bar should be 0.8 amp/Sq.mm				
	OUTGOINGS:				
	A) 63 amp FP MCB 10 KA D series: 6 nos				
	b) 40 amp FP MCB 10 KA D series: 4 nos				
	c) 25 amp Single pole & Neutral MCB 10 KA D Series: 15 nos				
4	Supply & fixing of 100amp bus bar box made of electrical grade aluminium strip enclosed in separate providing DMC/SMC bus bar support duly insulated with heat shrinkable sleeves in distinct colours.	nos.	1		
5	Supply & fixing of indoor cubicle type UPS panel suitable for operation on 415 volts 50 Hz. 3 phase 4 wire AC distribution system, AC supply, suitable for 35 KA short circuit rating, confirming to IP-42 degree of protection, made up of 1.6 mm thick CRCA sheet, wall/ floor mounted, dust & vermin proof enclosure, having hinged and earthed cover on front, having neoprene gasket/ having epoxy powder paint after 7 tank process of degreasing, derusting etc comprising of the following switchgears complete with all interconnections with suitable size of copper strip/hard drawn PVC insulated copper cable i/c keeping the panel in position, minor civil works as necessary, painting, sign writing etc complete as required. (as per specifications of Panel attached)	nos.	2		
	INCOMING:				
	a) 63 amp 4 pole MCCB 10 KA D series.: 1 no				
	METERING:				
	a) Digital Volt meter displaying voltage of each phase along with 3 nos HRC type protection fuse etc as reqd: 1 nos				
	UPS INPUT & OUT PUT				
	1 no 40 A SPN MCB 10KA with 1 no 40 amp Industrial type socket out let and Top with connection for input switch from selector switch and between out put switch to o/g MCB with PVC insulated copper conductor wire as reqd: 5 nos (for UPS input & Output from UPS)				
	OUTGOINGS:				
	a) 63 amp FP MCB 10 KA B Series: 4 nos.				
	TOTAL SUB HEAD-III				
	SUB HEAD - IV (SUPPLY OF FIXTURES & FANS)				
1	Supplying of 6W/9W LED batten suitable for indoor application.	Each	8		
2	Supplying of stepped type electronic fan regulator on the existing modular plate switch box i/c connection but excluding modular plate etc as reqd.	Each	3		
3	Supplying of 45W LED (2'X2') surge protection LED luminaire suitable for armstrong ceiling and grid ceiling complete with separate electronic drive/approved make by architect/Ele.Consultant etc as reqd.	Each	68		
4	Supplying of recess mounted circular LED (dia-6") downlighter 9/12 Watt LED suitable for armstrong ceiling and grid ceiling complete with separate electronic drive/approved make by architect/Ele.Consultant etc as required.	Each	97		
5	Supplying, installation, testing & fixing of 1X36 W tube light fitting powder coated batten with PC tube.	Each	7		
6	Supplying of Exhaust fan 300mm sweep HEAVY DUTY EXHAUST	Each	7		

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7	Supplying of 1200 mm sweep energy efficient ceiling fan, connection with 1.5 sqmm PVC ins copper condtr, testing, commissioning etc as reqd.	Each	3		
8	Supplying of oscillating and tilting type wall bracket fan of 400 mm sweep i/c fixing the same on wall, connection with 1.5 sqmm PVC insulated copper conductor, testing, commissioning etc as required.	Each	45		
TOTAL SUB HEAD-IV					
SUB HEAD - V (ERECTION OF FIXTURES)					
1	Installation, testing and commissioning of ceiling fan and regulator including wiring the down rod of standard length (upto 30 cm) with 1.5 sq. mm PVC insulated, copper conductor, single core cable, i/c pvdg earthing wire etc. as required.	Each	3		
2	Installation, testing and commissioning of 400MM wall fan including wiring with 1.5 sq. mm PVC insulated, copper conductor, single core cable etc. as required.	Each	18		
3	Installation of exhaust fan up to 300mm sweep in the existing opening, including making the opening / hole to suit the size of the above fan, making good the damages, connections, testing, commissioning etc. as required.	Each	7		
4	Installation, testing and commissioning of 1X36watt tube Light or 1 X 18/23 watt LED with tube /bulb and other all cover provide all fitting.	Each	170		
TOTAL SUB HEAD- V					
SUB HEAD - VI (SUPPLY OF CABLE MAIN & SUBMAIN)					
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.				
	(i) 25 sq.mm, 3.5 core LT Cable	Mtr.	45		
	(ii) 70 sq mm, 3.5 core LT Cable	Mtr.	45		
TOTAL SUB HEAD-VI					
SUB HEAD - VII (SUPPLY & MAKING OF EARTHPITS)					
1	Earthing with GI earth plate 600mm x 600mm x 6 mm thick accessories and pdg masonry enclosure with cover plate having locking arrangement and watering pipe etc (but without charcoal or coke and salt) complete as required.	Set	3		
2	Extra for using charcoal and sal for GI / copper earth plate electrode as required (96 Kg charcoal & 5 Kg salt)	Set	3		
3	Providing & laying earth connection from earth electrode with 6 SWG dia GI wire in 15 mm dia. GI pipe from earth electrode as required.	Mtr.	40		
4	S/L 6 SWG G.I.wire on surface or in recess as reqd.	Mtr.	40		
5	Earthing with CU earth plate 600mm x 600mm x 3 mm thick accessories and pdg masonry enclosure with cover plate having locking arrangement and watering pipe etc (but without charcoal or coke and salt) complete as required.	Set	3		
6	Extra for using charcoal and sal for copper earth plate electrode as required	Set	3		
7	Providing & laying earth connection from earth electrode with 4 mm dia copper wire in 15 mm dia. GI pipe from earth electrode as required.	Mtr.	40		
8	S/L 4 mm dia copper wire on surface or in recess as reqd.	Mtr.	40		
TOTAL SUB HEAD-VII					

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