

BILL OF QUANTITY OF ELECTRICAL WORKS N/W: PROVIDING ELECTRICAL WORKS FOR CNARA BANK, CPH, PATNA					
BRANCH					
A	SUB HEAD-I (WIRING)				
B	SUB HEAD-III (DISTRIBUTION BOARDS & PANELS)				
C	SUB HEAD-IV (SUPPLY OF FIXTURES & FANS)				
D	SUB HEAD - V (ERECTION OF FIXTURES)				
E	SUB HEAD-VI (SUPPLY OF CABLE MAIN & SUBMAIN)				
F	SUB HEAD-VII (SUPPLY & MAKING OF EARTH PITS)				
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 conductor 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	180		
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.	395		
3	Wiring for Light D.B.CKT 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 for loop earthing as required.	Mtr.	85		
4	Sub main Wiring between UPS PANEL to UPS fed DB with 4x 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.	235		
5	Wiring for RAW Power 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 for loop earthing as required.	Mtr.	45		
6	Sub Main Wiring from LT Panel to UPS Panel with 4 x 16 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.	30		
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.	3000		
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.	210		

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.	150		
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	35		
11	S/F AC controller unit consisting of one no 25 amp AC controller 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 reqd.	Set	20		
12	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	7		
13	Supply & fixing remote controlled call bell buzzer suitable for 230 V AC/ Battery operated with remote type bell push as reqd.	nos.	2		
14	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/Elc.Er/as required.	nos.	100		
15	Supply & fixing of approved make including square face plate and a) RJ-11 socket	Set.	100		
	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.	3000		
16	Supplying and drawing fixing 8 SWG copper conductor wire for loop earthing as required.	Mtr.	110		
17	Supply & fixing Commissioning of 20 line Net-working hub all complete as required.	Set.	0		
18	Supply & fixing Commissioning of 2 Meter Patch Cord as required, all complete as per requirement.	Set.	100		
19	Supply & fixing of following sizes of PVC conduit along with a) 20 mm	Mtr.	66		
	b) 25 mm	Mtr.	50		
	TOTAL SUB HEAD-I				
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)				
	b) 4+24 Way double door TPN D.B.	Each	8		
	c) 16 Way double door SPN DB.	Each	0		
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.				
	b) 40 A 10 KA FP MCB "C"	Each	8		
	c) 40 A 10 KA DP MCB "C"	Each	0		
	d) 6/10 A 10 KA SP MCB "C"	Each	150		

3	<p>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, 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/ 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)</p> <p>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.</p>	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:				
	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)32 amp SPN MCB 10 KA D series:8nos				
	b) 25 amp FP MCB 10 KA D series: 8 nos				
	c) 32/40 amp 4 pole MCB 10 KA D Series: 4 nos				
	d)63amp tpn MCCB 16 KA D Series: 2nos				
	e) 32 amp Double pole & Neutral MCB 10 KA D Series: 3 nos				
4	<p>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/ 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)</p>	nos.	2		
	INCOMING:				
	a) 63 amp 4 pole MCCB 16 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 TPN MCB 10KA with 1 no 40 amp TPN 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) 40 amp TPN MCB 10 KA B Series: 4 nos.				
	TOTAL SUB HEAD-III				
SUB HEAD - III (SUPPLY OF FIXTURES & FANS)					
1	Supplying of 6W/9W LED batten suitable for indoor application.	Each	5		
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	1		
3	Supplying of 36W 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	48		
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	70		
5	Supplying, installation, testing & fixing of 1X36 W tube light fitting powder coated batten with PC tube.	Each	4		
6	Supply and installation of LED strip sith driver complete as per instruction	Mtr	0		
7	Supplying of Exhaust fan 300mm sweep HEAVY DUTY EXHAUST	Each	6		
8	Supplying of 1200 mm sweep energy efficient ceiling fan, connection with 1.5 sqmm PVC ins copper condtr, testing, commissioning etc as reqd.	Each	1		
9	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	30		
	TOTAL SUB HEAD-IV				
SUB HEAD - IV (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	1		
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	30		
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	6		
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	140		
	TOTAL SUB HEAD- V				
SUB HEAD - V (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.	50		
	(iii) 50 sq mm, 3.5 core LT Cable	Mtr.	45		
	TOTAL SUB HEAD-VI				
SUB HEAD - VI (SUPPLY & MAKING OF EARTHPIES)					
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				