

BOQ FOR ELECTRICAL AND LAN WORKS AT CPH VIJAYAWADA					
S.no.	Item description	Qty	Rate Excl GST	per	Amount Excl GST
1	<b>FIXTURES:</b>				
	Supply, Installation, Testing & Commissioning of the following Lighting Luminaries with necessary fixing accessories. (Philips/ Havells/Crompton/Wipro Make.)				
i	20W LED, 4 feet batten light fixture with Aluminium housing. ( <b>Philips Make Model BN021C LED20S PSU CW GR S2</b> or Equivalent )	14		no	
ii	10W LED, 2 feet batten light fixture with Aluminium housing ( <b>Wipro Make Model LL20-111- xxx-65NE</b> or Equivalent)	6		no	
iii	Supply & Installation of 36W <b>2X2 LED LIGHT</b> fixtures (Havells - VENUSNEOHE2X2PLR36WLED8XXS (OR) Equivalent models in other approved makes) including cost and conveyance of all materials, taxes and all labor charges etc., complete. with all inter connections and fixing arrangement (should be hanged with the help of chains/GI from the ceiling) as required. The price should be include fixing arrangement in Gypsum/ Grid ceiling etc.(wipro /Philips /Havells )	50		no	
iv	Supply & Installation of 12W <b>LED DOWN LIGHT</b> fixture. (Havells:- ENDURANEODLR12WLED857S or Equivalent models in other approved makes) including cost and conveyance of all materials, taxes and all labor charges etc., complete.(wipro /Philips /Havells)	24		no	
v	Supply & Fixing of 1200 mm sweep Crompton Make High Speed Revara Ceiling fan with standard down rod, Fan Hook , all accessories Electrical connections. Including fixing materials required. ( <b>Crompton Sea Wind</b> or <b>Khaitan Zolta make</b> or equivalent)	3		no	
vi	Supply & Fixing of 400 mm sweep Wall mounted fan (plastic blade) with 3 pin Plug on the lead wire of each fan all accessories Electrical connections. Including fixing materials required. ( <b>Havells Swing model</b> or <b>Crompton Hi Flo Make</b> or equivalent)	20		no	
vii	Light duty Exhaust fan of 200-250mm fresh air ventilator type with louver complete for Toilets( 9") - Crompton/ Khaitan/Havells make	7		no	
viii	Heavy duty 300mm sweep exhaust fan with metallic blades for UPS Room (12") - Crompton/ Khaitan/Havells make	1		no	

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2	<b>MAIN INCOMING PANEL:</b> (MCB/MCCB-Legrand/Schneider/L&T Make)				
2.1	SITC of Wall / Floor mounting Type, dust and vermin proof main distribution board panel fabricated of 18swg (powder coated) comprising of Busbar (each of RYB +N) copper 160amp each, <b>160A FP MCCB</b> 3P adjustable 25kA -1no as incomer, Digital Panel Meter- 3 Phase VAF Meter (L&T/Legrand). <b>100A 4P Onload Generator change over switch</b> should be available in the panel with connection only for lighting and UPS control and R, Y, B Phase indicating lamps. (Provide labeling in Panel) including DANGER sign and necessary precautions, Earth Bus Bar 25x5mm GI strip- 2 nos (At the bottom) & Outgoing consisting of: <b>Lighting DB Control - 1 nos of 40A 4P MCB</b> <b>1 nos of 40A DP MCB for Raw power DB</b> <b>ACs distribution Control: 1 nos of 63A 4P MCB</b> <b>1 nos of 63A 4P MCB for UPS Control.</b>	1		no	
3	<b>DISTRIBUTION BOARD:</b> (Legrand/Schneider/L&T Make)				
3.1	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
3.1.1	<b>LIGHTING DB:</b>				
i	6 way (8 + 18), Double door	1		no	
	<b>NOTE:</b> Inverter connections should be taken from single phase(say R Phase).				
3.1.2	<b>AC DB:</b>				
i	8 way (8 + 24), Double door	1		no	
3.2	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
3.2.1	<b>UPS SUB DB &amp; RAW POWER DB:</b>				
i	UPS SUB DB: 12 way , Double door	1		no	
ii	RAW POWER DB: 12 Way, Double door	1		no	
	<b>NOTE:</b> Provide label in all DBs.				
	<b>NOTE:</b> AC load should not be connected to Generator.				
4	<b>RESIDUAL CURRENT CIRCUIT BREAKER:</b> (Legrand/Schneider/L&T Make)				
	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.				

SEAL AND SIGNATURE OF THE CONTRACTOR

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4.1	<b>LIGHTING DB:</b>				
i	40 A	1		no	
4.2	<b>AC DB:</b>				
i	63 A	1		no	
	<b>MINIATURE CIRCUIT BREAKER:</b> (Legrand/Schneider/L&T Make)				
5	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
5.1	<b>LIGHTING DB MCBs:</b>				
i	6/10A Single Pole	15		no	
ii	20/32A Double Pole (Inverter i/p & Glow Sign Board)	2		no	
iii	40A Four Pole	1		no	
5.2	<b>AC DB MCBs:</b>				
i	20A Double Pole	2		no	
ii	32A Triple Pole	6		no	
iii	63A Four Pole	1		no	
5.3	<b>UPS SUB DB MCBs:</b>				
i	10/16A Single Pole	10		no	
ii	40A Double Pole	1		no	
5.4	<b>RAW POWER DB MCBs:</b>				
i	10/16A Single Pole	10		no	
ii	40A Double Pole	1		no	
6	<b>MINIATURE CIRCUIT BREAKER:</b> (Legrand/Schneider/L&T Make)				
6.1	Supplying and fixing FP sheet steel enclosure on surface/ recess along with 63 A 415 V "C" curve TPN MCB complete with connections, testing and commissioning etc. as required.				
6.1.1	<b>UPS INPUT MCB:</b>				
i	63A Four Pole	2		no	
6.1.2	<b>UPS OUTPUT MCBs: BRANCH</b>				
i	40A Double Pole	1		no	

SEAL AND SIGNATURE OF THE CONTRACTOR

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7	<b>AC OUTPUT MCB:</b> (Legrand/Schneider/L&T Make)				
7.1	Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required.	2		no	
7.2	Supplying and fixing 20 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 20 A "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required.	6		no	
	<b>6 PIN SOCKET WITH SWITCH:</b> (Anchor/Schneider/Legrand Make).				
8	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.				
8.1	<b>RAW POWER POINT:</b>				
ii	WATER DISPENSER	2		no	
8.2	<b>UPS POWER POINT:</b>				
i	Hub connector (BRANCH AND ATM)	6		no	
ii	CCTV & Fire Alarm (BRANCH AND ATM)	3		no	
	<b>NOTE:</b> The complete alarm systems and CCTV systems power connections must be taken before the output MCB of the UPS connection to ensure continuous power supply to the security systems. separate MCB to be provided near CCTV Fire Alarm System power points.				
9	<b>3 PIN SOCKET WITH SWITCH:</b> (Anchor/Schneider/Legrand Make)				
9.1	Supplying and fixing following modular switch/socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
i	5/6 A switch for socket in switchboard	12		no	
ii	3 pin 5/6 A socket outlet in switchboard	12		no	

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9.2	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.				
i	Counters	61		no	
ii	AGM Cabin	2		no	
10	<b>UPS POINT FOR COMPUTERS/ PRINTERS:</b> (Anchor/ Schneider/ Legrand Make) [In Counter, Manager Cabin & Banking hall				
10.1	Supplying and fixing following size/ modules, GI box alongwith modular base/surface box & cover plate for modular switches in recess etc. as required.				
i	8 Module (125mmX125mm)	63		no	
10.2	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
i	15/16 A switch	126		no	
ii	6 pin 15/16 A socket outlet	189		no	
11	<b>FAN REGULATOR:</b> (Anchor/Schneider/Legrand Make).				
	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	3		no	
12	<b>POINT WIRING:</b> (Switch-Anchor/Schneider/Legrand Make) (Wiring-Finolex/Havells/ Poly Cab Make)				
	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
i	One Light point controlled by one 6A switch.	56		no	
ii	Two Light point controlled by one 6A switch.	19		no	
iii	Group B (Fan/Exhaust Fan Points)	11		no	
iv	Group B (Wall Mount Fan Points) with 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	20		no	
v	Group A (Call Bell Point)	1		no	

SEAL AND SIGNATURE OF THE CONTRACTOR

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13	<b>CIRCUIT/SUBMAIN WIRING:</b> (Finolex/Havells/ Poly Cab Make)				
13.1	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
	<b>NOTE:</b> Essential/Non essential/UPS Distribution each will have a completely independent and seperate distribution system starting from the main, switchboard upto final wiring for each system.				
13.1.1	<b>Main DB to LDB</b>				
i	4 X 4 sq. mm + 2 X 4 sq. mm earth wire	35		Mtr	
13.1.2	<b>LDB to First Point (or) Switch Board</b> (Lighting Circuit Wiring)				
	<b>NOTE:</b> Lighting circuit shall not have more than a total of 10 points of light, fan and socket outlets, or a total connected load of 800W, whichever is less.				
i	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	345		Mtr	
13.1.3	<b>Main DB to UPS input DB / Raw power DB</b>				
	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	47		Mtr	
13.1.4	<b>UPS input DB to UPS</b>				
	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	15		Mtr	
13.1.5	<b>UPS Output MCB to UPS SUB DB</b>				
	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	35		Mtr	
13.1.6	<b>UPS &amp; RAW Power Circuits</b> (Power circuit wiring)				
	<b>NOTE:</b> Power circuit shall have a maximum of 2 Points only in 1 Circuit.				
i	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	1380		Mtr	
13.1.7	<b>Main DB to AC DB</b>				
i	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	47		Mtr	
13.1.8	<b>AC DB to AC units</b>				
i	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	40		Mtr	
ii	4 X 6 sq. mm + 1 X 6 sq. mm earth wire	145		Mtr	
13.1.9	<b>Sign Board</b> (LDB to Name Board)				
i	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	40		Mtr	
13.2	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required.				
13.2.1	<b>UPS to UPS output MCB</b>				
i	2 x 6 sq. Mm	15		Mtr	

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	<b>MV CABLE LAYING:</b>				
13.3	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.				
	<b>Meter to Kit Kat Fuse to Main DB</b>				
13.3.1	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)				
i	95 sq. mm	55		Mtr	
14	<b>TELEPHONE POINT WIRING:</b>				
14.1	Supply , fixing , testing of phone point with suitable GI boxes with Telephone socket (RJ-11) with mounting box & front plate complete in all respect.	20		no	
14.2	Supply, installation, testing and commissioning of <b>20 pair Krone Make/ equivalent</b> telephone tag block duly enclosed in sheet metal powder coated box with lock & key mounted on wall complete with necessary terminations.	1		no	
14.3	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the new surface/ recessed steel/ PVC conduit as required.				
14.3.1	<b>From Telephone Junction Box to Socket</b>				
i	2 Pair	385		Mtr	
14.3.2	<b>From Telephone pole to Mgr cabin</b>				
i	4 Pair	40		Mtr	
15	<b>EARTHING:</b>				
15.1	<b>Plate Earthing: (For UPS Neutral Earth)</b>				
i	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	1		Set	
ii	Providing and laying earth connection from earth electrode with 4.00 mm dia copper wire in 15 mm dia G.I. pipe from earth electrode including connection with copper thimble excavation and re-filling as required.	60		Mtr	
15.2	<b>Pipe Earthing:</b>				
i	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	2		Set	
ii	Providing and laying earth connection from earth electrode with 6 SWG dia G.I. Wire in 15 mm dia G.I. pipe from earth electrode including connection with G.I. thimble excavation and re-filling as required.	60		Mtr	

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S.no.	Item description	Qty	Rate Excl GST	per	Amount Excl GST
	<b>CALLING BELL:</b> (MANAGER CABIN & DISCUSSION ROOM)				
16	Supplying and fixing call bell/ buzzer suitable for single phase, 230 V, complete as required.	1		no	
17	Supply & Installation of rubber mats (Class-A) of 1000 mm x 2000mm & thickness of 10mm: 3.3 KV Voltage grade	1		no	
<b>Total Electrical works (A)</b>					
<b>DATA CABLING WORKS</b>					
S.no.	Item description	Qty	Rate	per	Amount
1	Supply & laying of Lan cabling to the all tables cat 6e UTP(D-Link Make) cable run through 25mm dia rigid PVC pipe including necessary clamps screws concealed in wall where ever necessary completed in all respects. <b>The data cabling pipe should be laid at a minimum distance of 3 ft from pipes laid down for power distribution.</b>	1150		Mtr	
2	Supply and Fixing of Cat -6e XL RJ 45 Toolless information outlets with Single face plate with single connector & block mount box	72		no	
3	Supply & Fixing of 7 feet patch cards with end clips (D-Link Make)	72		no	
4	Supply & Fixing of 3 feet patch cards with end clips (D-Link Make)	72		no	
5	Supply, Fixing & Testing of CAT-6 UTP 24 Port Jack Panel fully loaded (D-Link Make)	3		no	
6	Supply & Fixing of 12U wall Mounted Rack with as per requirement with all accessories	3		LS	
<b>Total Data Cabling works (B)</b>					
<b>Total Electrical and Data Cabling (C = A + B)</b>					
<b>DISCOUNT:</b>					
<b>GRAND TOTAL AFTER DISCOUNT:</b>					
<b>RUPEES:</b>					
<b>GST 18% EXTRA</b>					

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