## BILL OF QUANTITY FOR ELECTRICAL WORK IN HIG AND MIG FLATS IN CHARU CHANDRA PURI COLONY GORAKHPUR

S. No.	Item Description	Unit	Qty	Rate	Amount
	SECTION-I HIG FLATS: LIGHT/POWER/AC POINT WIRING				
	Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid in 25 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects for mains(from TP MCB DB to SPN MCB DB).	RMT	50		
	Supply, installation, testing and commissioning (SITC) of 2X4+1X4 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid 20 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects.( from SP MCB DB to AC circuits and power circuit for geyser)	RMT	100		
	Providing & installation on angle iron frame of 2+8 way SPN distribution board with cover/door(plastic or ms) comprising of one 63 Amp in coming DPMCB and, eight 6A-10A out going SPMCB All MCB's to be of C series Complete Connection testing etc in all respect( for light/power/AC circuit )		1		
	Supply & installation on angle iron frame of 4way TPN distribution board double door comprising with 11 Nos 6-32A SPMCBs, and one 63A SPMCB as out going and incomer 63A 4P ELCB. All MCB to be of C series with blanking plates for blank slots. Complete connection testing etc. in all respect.	No	1		
	Supply, installation, testing and Commissioning of power point having one no. 16 A modular switch and 16 Amp modular socket, modular metal board with FRLS 2.5sqmm cu wire for phase and neutral and 2.5sqmm cu wire for earth in medium duty <u>PVC conduit concealed properly</u> including all accessories boxex as required, Maximum Point on one circuit should not exceed Two. For air purifier, TV, room heater at suitable place. Circuit to be connected from lighting TPNDB/SPNDB, controlled by each point with each switch testing/commissioning in all respect. In PVC conduit (concealed on wall/floor and making good the same).Item include supply & Installation of modular MS board, 15/20Amp switches, Sockets etc. complete for power board.		10		
	Supply, installation, testing and Commissioning of power point having Two nos. 6/10 A modular switch and two nos. 6/10 Amp modular socket, modular metal board with FRLS 2.5 sqmm cu wire for phase and neutral and 2.5sqmm cu wire for earth in medium duty <u>PVC</u> conduit concealed properly including all accessories boxex as required, Maximum Point on one circuit should not exceed Three. For Mobile charging and any other requirement at suitable place.Circuit to be connected from lighting TPNDB/SPNDB, controlled by each point with each switch testing/commissioning in all respect. In PVC conduit (concealed on wall/floor and making good the same).Item include supply & Installation of modular MS board, 6/10Amp switches, Sockets etc. complete for power board.	No.	12		
	Providing & Installation on angle iron frame of manufactures sheet steel 20A socket board with cover and 2 pole & earth metal plug and socket /Modular socket board with plug top and 25/32 Amp SPMCB/switch complete in all respect for air conditioners.		5		
	Distribution wiring including circuit wiring from TPNDB/SPNBDs to switch boards and point wiring from switch board to point outlet with 1100 V grade, PVC insulated, FRLS, multi strand Cu wire of size 1.5 sq. mm for P, N&E in ISI marked PVC conduit with same make accessories in concealed/surface or in double lock PVC casing/capping and with modular type switches in metallic modular box, front plate, cover plate, 3 plate ceiling rose, angular holder, with two internal earthing terminals/studs for earthing. Junction boxes to be covered with ISI mark 3 mm thick phenolic laminated sheet cover, brass screws and cup washers for cover fixing PVC conduit and other accessories. (i) All switch boards and regulators to be modular type, MS box should be 16 swg with 3 mm thick ISI marked phenolic laminated cover, brass screws and cup washers and Modular type 6/10 A switch/socket. (ii) Point wiring should be inclusive of continuous wire length(P, N & E) upto connection block of light fitting/fans. (iii) Provision for fan regulators shall be electronic step type 400W rating. (iv) Ceiling fan point shall be provided with regulators wherever specified. The switch boards to be considered accordingly. If there any more than one point in single switch boar then the neural and earth can be looped from one point to another point with FRLS 2.5 sqmm cu wire.				
	One Light/fan point controlled by one switch	Nos	36		
	Fan point controlled by one switch with supply of electronic modular regulator	Nos	6		
Iii	10 A socket including socket and controlling switch ( on switch board)	Nos	10		

S. No.	Item Description	Unit	Qty	Rate	Amount
	SITC in concealed/surface manner of the following modular switches, sockets etc. including	0	~~;		
	modular metallic box, front plate, cover plate of suitable size:				
	Note: Modular box size will vary depending on the number of switches, sockets to be mounted.				
	Item should be quoted accordingly	<b>N</b> 7	20		
	10 A switch	Nos	20		
	10A socket	Nos	10		
	SITC of 1100 V grade, PVC insulated, FRLS, multi strand Cu wire of following sizes in existing conduits, casing/capping including end termination in switch boards, MCB boards,				
	point outlet, socket board etc. for inverter, door well etc.				
	6 sq mm	RMT	20		
	4 sq mm	RMT	30		
	2.5 sq mm	RMT	60		
	1.5 sq mm	RMT	118		
	SITC on surface of Heavy duty double lock PVC casing capping of size:				
	i. 50 mm	М	5		
	ii. 38 mm	М	10		
	Iii. 25 mm	М	10		
	iv. 19 mm	М	20		
	v. 16 mm	М	30		
12.00	Supplying and laying of 1.1 KV grade 4x10sq. mm. Aluminium conductor, PVC/XLPE	Mtr			
	insulated and sheathed, armoured cables of following sizes conforming to IS:1554 (Part-I)		40		
	underground or on surface				
13.00	Supply and burring of safe Earthing Electrode T-19(hot dip Galvanised), Length 3000mm,				
	outer pipe 50mm, inner pipe 25, Terminal Dia 12mm, outer GI pipe of 16SWG And inner GI				
	pipe of 12swg with Hot dip Galvanization up to 100 micron filled with crystalline conductive				
	mixture (CCM) Having Anti corrosive & conductive property with 50 Kgs activated soil		1		
	(BFC) capable of reducing the soil resistivity with good mixture of retaining capacity along				
	with CI BOX with hinged cover and masonry housing (from electrode terminal to sw board, cost of GI strip will be extra). GI strip directly to be connected from GI pipe with double nut				
	bolt and spring washer. Make: As approved in UPPWD & CPRI certified.				
	As per Sl No.24 with 25X3MM GI STRIP concealed on wall/floor up to 1st per meter point				
	complete in all respect.	Mtrs	20		
	Providing & installation of1x10SQMM PVC insulated copper wire in 20mm PVC pipe up to				
	inside from earth station.(sl ) in side of UPS room complete in all respect including fixing with	Mtrs	40		
	nut and bolts (concealed on wall/floor).				
	Providing & installation of one 63 Amp 4 pole MCB, 10 KA C-curve in suitable MS enclosure				
	with powder coated for mains after meter. Complete Connection testing etc in all respect( for	Nos.	1		
	light/power/AC circuit )				
	Charges for liaisoning with power supply and other statutory authorities like Directorate of				
	electrical Safety for obtaining necessary clearances/ approvals including preparation of drawings, filling up forms, follow-up on behalf of Employer etc. in connection with the subject		1		
	installation and getting electricity connection.				
	HIG ONE FLAT TOTAL (A)				
	SECTION-I TOTAL FOR 6 HIG FLATS (B) =(AX6)				
		TT •4	Qty	Rate	Amount
. No.	Item Description	Unit			1
. No.	Item Description SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING	Unit			
	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING	Unit	~ *		
1.00	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade,		~ *		
	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid in 25 mm				
1.00	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid in 25 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and	RMT	40		
1.00	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid in 25 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects for	RMT			
1.00	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid in 25 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects for mains(from TP MCB DB to SPN MCB DB).	RMT			
1.00	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid in 25 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects for	RMT			
1.00 2.00	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid in 25 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects for mains(from TP MCB DB to SPN MCB DB). Supply, installation, testing and commissioning (SITC) of 2X4+1X4 sq. mm, 1100 V grade,	RMT			
1.00	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid in 25 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects for mains(from TP MCB DB to SPN MCB DB). Supply, installation, testing and commissioning (SITC) of 2X4+1X4 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid 20 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects.( from	RMT	40		
1.00	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid in 25 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects for mains(from TP MCB DB to SPN MCB DB). Supply, installation, testing and commissioning (SITC) of 2X4+1X4 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid 20 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects.( from SP MCB DB to AC circuits and power circuit for geyser)	RMT RMT	40		
1.00 2.00 3.00	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid in 25 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects for mains(from TP MCB DB to SPN MCB DB). Supply, installation, testing and commissioning (SITC) of 2X4+1X4 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid 20 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects.( from SP MCB DB to AC circuits and power circuit for geyser) Providing & installation on angle iron frame of 2+10 way SPN distribution board with	RMT RMT	40		
1.00 2.00 3.00	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid in 25 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects for mains(from TP MCB DB to SPN MCB DB). Supply, installation, testing and commissioning (SITC) of 2X4+1X4 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid 20 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects.( from SP MCB DB to AC circuits and power circuit for geyser) Providing & installation on angle iron frame of 2+10 way SPN distribution board with cover/door(plastic or ms) comprising of one 63 Amp in coming DPMCB and Ten nos. 6A-10A	RMT RMT	40		
1.00 2.00 3.00	SECTION-II MIG FLATS: LIGHT/POWER/AC POINT WIRING Supply, installation, testing and commissioning (SITC) of 2X6+1X6 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid in 25 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects for mains(from TP MCB DB to SPN MCB DB). Supply, installation, testing and commissioning (SITC) of 2X4+1X4 sq. mm, 1100 V grade, FRLS, multi strand copper conductor PVC insulated wire in medium duty rigid 20 mm MS/PVC conduit as required concealed in floor/wall/ceiling including chase cutting and making good of damages or on surface including connections, complete in all respects.( from SP MCB DB to AC circuits and power circuit for geyser) Providing & installation on angle iron frame of 2+10 way SPN distribution board with	RMT RMT	40		

S. No.	Item Description	Unit	Qty	Rate	Amount
	Supply, installation, testing and Commissioning of power point having one no. 16 A modular switch and 16 Amp modular socket, modular metal board with FRLS 2.5sqmm cu wire for phase and neutral and 2.5sqmm cu wire for earth in medium duty <u>PVC conduit concealed</u> <b>properl</b> including all accessories boxex as required, Maximum Point on one circuit should not exceed Two. For air purifier, TV, room heater at suitable place. Circuit to be connected from	Points	8		
	lighting TPNDB/SPNDB, controlled by each point with each switch testing/commissioning in all respect. In PVC conduit (concealed on wall/floor and making good the same).Item include supply & Installation of modular MS board, 15/20Amp switches, Sockets etc. complete for power board.				
	Supply, installation, testing and Commissioning of power point having Two nos. 6/10 A modular switch and two nos. 6/10 Amp modular socket, modular metal board with FRLS 2.5 sqmm cu wire for phase and neutral and 2.5sqmm cu wire for earth in medium duty <u>PVC</u> conduit concealed properly including all accessories boxex as required, Maximum Point on one circuit should not exceed Two. For Mobile charging and any other requirement at suitable place.Circuit to be connected from lighting TPNDB/SPNDB, controlled by each point with each switch testing/commissioning in all respect. In PVC conduit (concealed on wall/floor and making good the same).Item include supply & Installation of modular MS board, 6/10Amp switches, Sockets etc. complete for power board.	No.	10		
	Providing & Installation on angle iron frame of manufactures sheet steel 20A socket board with cover and 2 pole & earth metal plug and socket /Modular socket board with plug top and 25/32 Amp SPMCB/switch complete in all respect for air conditioners.	Nos	3		
	Distribution wiring including circuit wiring from TPNDB/SPNBDs to switch boards and point wiring from switch board to point outlet with 1100 V grade, PVC insulated, FRLS, multi strand Cu wire of size 1.5 sq. mm for P, N&E in ISI marked PVC conduit with same make accessories in concealed/surface or in double lock PVC casing/capping and with modular type switches in metallic modular box, front plate, cover plate, 3 plate ceiling rose, angular holder, with two internal earthing terminals/studs for earthing. Junction boxes to be covered with ISI mark 3 mm thick phenolic laminated sheet cover, brass screws and cup washers for cover fixing PVC conduit and other accessories. (i) All switch boards and regulators to be modular type, MS box should be 16 swg with 3 mm thick ISI marked phenolic laminated cover, brass screws and cup washers and Modular type 6/10 A switch/socket. (ii) Point wiring should be inclusive of continuous wire length(P, N & E) upto connection block of light fitting/fans. (iii) Provision for fan regulators shall be electronic step type 400W rating. (iv) Ceiling fan point shall be provided with regulators wherever specified. The switch boards to be considered accordingly. If there any more than one point in single switch boar then the neural and earth can be looped from one point to another point with FRLS 2.5 sqmm cu wire.				
8.00	One Light/fan point controlled by one switch	Nos	30		
Ii	Fan point controlled by one switch with supply of electronic modular regulator	Nos	5		
Iii	10 A socket including socket and controlling switch ( on switch board)	Nos	10		
	SITC in concealed/surface manner of the following modular switches, sockets etc. including modular metallic box, front plate, cover plate of suitable size: Note: Modular box size will vary depending on the number of switches, sockets to be mounted. Item should be quoted accordingly				
	10 A switch	Nos	16		
	10A socket	Nos	8		
	SITC of 1100 V grade, PVC insulated, FRLS, multi strand Cu wire of following sizes in existing conduits, casing/capping including end termination in switch boards, MCB boards, point outlet, socket board etc. for inverter, door well etc.				
	6 sq mm	RMT	20		
	4 sq mm	RMT	20		
	2.5 sq mm	RMT	40		
	1.5 sq mm	RMT	128		
11.00	SITC on surface of Heavy duty double lock PVC casing capping of size:				
	i. 50 mm	M	5		
	ii. 38 mm Iii. 25 mm	M	10		
	Iii. 25 mm iv. 19 mm	M M	20		
	v. 16 mm	M	20		
	Supplying and laying of 1.1 KV grade 2x10sq. mm. Aluminium conductor, PVC/XLPE insulated and sheathed, unarmoured cables conforming to IS:1554 (Part-I) underground or on surface		40		

S. No.	Item Description	Unit	Qty	Rate	Amount
	Supply and burring of safe Earthing Electrode T-19(hot dip Galvanised), Length 3000mm, outer pipe 50mm, inner pipe 25, Terminal Dia 12mm, outer GI pipe of 16SWG And inner GI pipe of 12swg with Hot dip Galvanization up to 100 micron filled with crystalline conductive mixture (CCM) Having Anti corrosive & conductive property with 50 Kgs activated soil (BFC) capable of reducing the soil resistivity with good mixture of retaining capacity along with CI BOX with hinged cover and masonry housing (from electrode terminal to sw board, cost of GI strip will be extra). GI strip directly to be connected from GI pipe with double nut bolt and spring washer. Make: As approved in UPPWD & CPRI certified.	SET	1		
	As per Sl No.24 with 25X3MM GI STRIP concealed on wall/floor up to Ist per meter point complete in all respect.	Mtrs	20		
Ii	Providing & installation of $1 \times 10$ SQMM PVC insulated copper wire in 20mm PVC pipe up to inside from earth station.(sl) in side of UPS room complete in all respect including fixing with nut and bolts (concealed on wall/floor).	Mtrs	40		
	Providing & installation of one 63 Amp DP MCB, 10 KA C-curve in suitable MS enclosure with powder coated for mains after meter. Complete Connection testing etc in all respect( for light/power/AC circuit )		1		
15.00	Charges for liaisoning with power supply and other statutory authorities like Directorate of electrical Safety for obtaining necessary clearances/ approvals including preparation of drawings, filling up forms, follow-up on behalf of Employer etc. in connection with the subject installation and getting electricity connection.	τc	1		
	MIG ONE FLAT TOTAL C)				
	SECTION-II TOTAL FOR 21 MIG FLATS ( D) = (CX21)				
S. No.	Item Description	Unit	Qty	Rate	Amount
	SECTION-III EXTERNAL LIGHTING				
	Supply of LED type street light fitting 30/33W suitable for outdoor installation, complete in all respects with LED, driver etc. with installation of street light fittings on rooftop with making of concrete mix cemented block including supply of angular pipe bracket, socket/ reducers, nut bolts Acceptable Makes: Philips/Crompton/Bajaj-CUB/ Wipro/ Havells- ENDURA CITY LITE		10.00		
	Supply and installation of LED on wall/ ceiling, 1200 mm, 1 X 18/20 W batten type light fitting complete with LED tubular lamp with driver, complete in all respects. Acceptable Makes: Philips/ Crompton/ Bajaj/ Wipro/ Havells	Nos.	30.00		
	Supply and fixing of 100 W LED flood light fitting suitable for outdoor installation with bend, clamp etc. all respect with LED Drivers etc.	Each	4		
	SECTION-III TOTAL FOR EXTERNAL LIGHTING ( E )				
	ΟΠΑΝΏ ΤΩΤΑΙ - ΘΕΟΤΙΩΝ Ι/Ω\ (ΘΕΟΤΙΩΝ Η/Ω\) ΘΕΟΤΙΩΝ Η/Ω				
	GRAND TOTAL= SECTION-I(B)+SECTION II(D)+ SECTION III(E)				Plus GST
	Neta Deter an considered inclusive of all execut CET CET shall be admitted add			L	1103 001

Note :Rates are considered inclusive of all except GST. GST shall be admitted additionally at prevalent rates/rules