

SRI GURU GRANTH SAHIB WORLD UNIVERSITY, SRI FATEHGARH SAHIB, PB.

PROJECT NAME:- INTERNAL CONSTRUCTION OF 7TH & 8TH FLOOR OF SRI GURU GRANTH SAHIB WORLD UNIVERSITY
(ACADEMIC BLOCK), SRI FATEHGARH SAHIB, PB.

SUMMARY OF COST		
S. No.	Description of items	Amount (INR)
1	CIVIL	279,07,890.25
2	PUBLIC HEALTH	8,09,371.90
3	Electrical, CCTV & Networking	132,90,228.72
4	Fire Fighting	66,84,125.06
	TOTAL	48691615.93



TESTING AND CONSULTANCY CELL GURU NANAK DEV ENGINEERING COLLEGE, LDH.

CLIENT NAME : REGISTRAR , SRI GURU GRANTH SAHIB WORLD UNIVERSITY, SRI FATEHGARH SAHIB, PB.

PROJECT NAME:- INTERNAL CONSTRUCTION OF 7th & 8th FLOOR OF SRI GURU GRANTH SAHIB WORLD UNIVERSITY (ACADEMIC BLOCK), SRI FATEHGARH SAHIB, PB.

ABSTRACT

Unless otherwise specified, all items includes the cost of labour and materials, tools & plants, ladders, scaffolding, lead & lifts etc. complete in all respect. No additional amount to be paid to complete the job.

No.	Description of items	Unit	Qty	Rate (INR) as per CSR	Amount (INR)
	CIVIL				
1	Screed of 50mm thick cement concrete 1:8:16 with stone aggregate to be laid below the topping using mechanical mixer for mixing of material	Sqm	4200.11	202.04	848590.90
2	Cement concrete 1:2:4 (a) With stone ballast or shingle (ii) mixing by mechanical means using concrete mixer volumetric type	Cum	5.04	5188.64	26170.98
3	Cold twisted deformed (Ribbed/ Tor steel) Bars (Fe 500 grade as per IS 1786-2008) , for R.C.C works, where not including in the complete rate of RCC including bending and binding placing in position complete	qtl	6.30	6497.00	40962.77
4	Centering and shuttering for sides and soffits of beam, beams, launching girders, bressumers, lintels.	Sqm	77.49	380.00	29444.68
5	First class burnt brick work laid in cement sand mortar 1:6 in first storey upto 4 metres above plinth level.	Cum	883.21	5543.38	4895947.64
6	Extra for work done in additional storey upto 4 metre above the top of structural roof of lower storey for Brick Work/ Concrete Block/ Clay Block.	Cum	441.60	1022.00	451318.37
6.1	upto 8th floor	Cum	441.60	1168.00	515792.43
7	115 mm thick brick wall with every fourth course reinforced with hoop iron laid in 1:4 cement mortar in superstructure	Sqm	275.04	825.04	226919.00
8	Extra for 115mm/100mm thick walls for additional storey upto 4 meters above the top of structural roof of lower storey for Brick Work/ Concrete Block/ Clay Block.	Sqm	137.52	105.00	14439.60
8.1	upto 8th floor	Sqm	137.52	120.00	16502.40
9	Providing and laying Rectified Porcelain floor tiles 400x400mm or more (thickness to be specified by the manufacturer) of premium quality conforming to IS:15622 of approved make in all colours laid on 20mm thick bed of Cement Mortar 1:4 (1 Cement : 4 Fine sand) for new flooring complete	sqm	184.52	844.00	155731.50
10	Providing and laying vitrified floor tiles in different sizes in light colour shades made using Full Body Technology (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement: 4 fine sand), complete. (Full body vitrified tiles have pigment in entire body / thickness of tile which makes chips and scratches less noticeable and make na ideal choice for high traffic zones.)	sqm	4200.11	1421.00	5968361.04

(Signature)

	Providing and fixing 1st quality ceramic glazed wall tiles Matt/Semi Matt/Gloss/Highly Gloss finish/Highlighter/emboss conforming to IS : 15622 (thickness to be specified by the manufacture of approved make in all colours, shades except burgundy, bottle green, black of size 600 x600 mm as approved by Engineer-in- Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:4 (1 cement: 4 fine sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	615.62	893.00	549752.23
	12.5 mm thick cement plaster 1:5	sqm	10871.31	185.65	2018258.28
3	Providing and fixing mineral fibre false ceiling tiles at height upto 4 mtr. With 16 mm thick beveled regular mineral fibre Anti-microbial false ceiling tile of size 595X595mm of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflection > 85%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Fire Performance as per (BS 476 pt - 6 & 7) in true horizontal level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33 mm thick (galvanized @120 gsm) comprising of main T runners of 15x32 mm of length 3000 mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm suspended from ceiling using galvanized mild steel item (galvanised@80gsm) 50 mm long 8mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod up to 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main 'T'. The system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size 24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights. The work shall be carried out as per specifications, drawings and as per directions of the engineer-in-charge. Providing and fixing ply-wood (4mm) ceiling Providing and fixing 5mm thick asbestos sheets ceiling Chapter-	sqm	1489.98	1856.00	2765410.30
13.1	Providing and Fixing ceiling consisting of 12.5mm thick Gypsum Board of any size G.I. Cradling hanged from the ceiling by means of G.I. hanger complete as per drawings, specifications and to the entire satisfaction of engineer-in- charge.	sqm	178.07	1321.00	235226.24
14	Preparation of plastered or concrete surface for painting (including sand papering the surface) using ready mixed cement based wall putty by applying two or more coats to get required finish	sqm	10871.31	80.00	869704.62
15	Applying priming coat with cement primer in all shade on newly plastered or concrete exterior surface	sqm	10871.31	21.00	228297.46
16	Wall painting with plastic emulsion paint of approved brand and manufacturer to give an even shade (two or more coats)	sqm	10871.31	89.00	967546.39
17	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate z sections and other sections conforming to Is: 733 and IS : 1285 of Jindal, Hindalco, Mahavir or equivalent make approved by Engineer in Charge, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC Plug/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitered and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing/paneling, C.P. brass/stainless steel screws, all complete as per architectural drawings and the directions of Engineer-In- Charge. (Glazing and paneling to be paid for separately) For fixed portion and chaukhats	Kg	1325.60	352.00	466611.20

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18	Supplying and fixing of Japani sheet frames (Chowkat) consisting of 18 gauge (1.25mm) thick steel sheet of the specified section (standard design latest), including iron lugs (hold fasts) iron hinges conforming to PWD specifications including bolts for fixing steps, lock notch provision for receiving tower bolts and finished, fixed in position including the cost of cement concrete 1:3:6 for filling in the frame and cement concrete 1:2:4 for lugs complete to the satisfaction of Engineer-in-charge. Doors and windows frame of size 118mm x 60mm with 40 mm wide single rebate weighing 3.43 kg per meter.	Mtr	908.00	751.20	682089.60
19	Factory manufactured Solid flush door fixed in position iron hinges, etc (excluding the cost of any fittings other than specified above but including labour for fixing the same in position (Code : IS 2202-1 (1999) (25mm thick)	Sqm	325.56	1951.00	635167.56
20	Providing & Fixing glass panes with nails and putty or wooden strip complete in all respect. Glazing area above 0.09 sqm. 5.0mm thick Plate glass (INDIAN)	Sqm	61.08	772.00	47153.76
21	Providing & fixing 6" stainless steel handles ISI marked on door & window frames complete in all respect as per the directions of Engineer-in-charge.	No	118.00	86.00	10148.00
22	Providing & fixing 8" stainless steel tower bolts ISI marked on door & window frames complete in all respect as per the directions of Engineer-in-charge.	No	236.00	312.00	73632.00
23	For shutters of doors, windows & ventilators including providing and fixing hinges/pivots and labour for fixing of fittings wherever required including the cost of PVC Plug / Rubber gasket required	Kg	1882.40	368.00	692723.20
24	P/F of Acrylic glass for window , ventilators complete in all respects (as per market rate)	Sqm	423.36	1950.00	825552.00

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25	Providing & fixing 30mm thick Factory Made solid Panel PVC Door shutter (Pannel thickness 5mm) Consisting of frame made out of M.S tubes of 19 guage thickness and size of 19mm x 19mm for styles & 15mm x 15mm for top & bottom rails. M.S frame shall have a coat of steel primers of approved make & manufacture. M.S frame shall be covered with 5mm thick heat moulded PVC 'C' Channel of size 30 x 50mm forming styles, and 5mm thick, 75mm wide PVC sheets for top rail, lock rail & bottom rail on either side, and 10mm (5mm x 2) thick, 20mm wide cross PVC sheet as gap insert for top rail & bottom rail. Panneling of 5mm thick PVC sheet to be fitted in the M.S Frame welded/Sealed to the styles & Rails with 30mm wide x 5mm thick PVC sheet beading on either side and joined together with solvent cement adhesive. an additional 5mm thick PVC strips of 20mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent cement adhesive etc. complete as per manufacturer's specification, conforming to test criteria specified in IS:4020-1998, Drawings and to the entire satisfaction of engineer in-charge.	sqm	423.36	2831.00	1198532.16
26	Cost of aluminum fittings complete for doors, windows such as tower bolts, handles, Stoppers and screw etc. for these fittings (Excluding sliding bolt) For shutter area above 0.50 sqm	sqm	423.36	111.00	46992.96
27	Providing and fixing bright finished brass 100 mm mortise latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	Each	118.00	1734.00	204612.00
28	Providing and fixing aluminium sliding door bolts ISI marked anodized (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete : 250 mm X 16 mm	Each	118.00	183.00	21594.00
29	Providing and fixing hydraulic door closer ISI mark with necessary screw etc. complete: L.S.I Designation No. III (size of door 851mm to 1000mm)	Each	10.00	1310.00	13100.00
30	Wrought iron & Mild steel ladders, framed grills, gratings etc. with ends of bars riveted or molded forged framed window guards, barred iron doors stair case iron railing etc. including cost of bolts and nuts, screws, welding rod complete fixing in position	qtl	16.00	9140.00	146240.00
31	Providing and laying Polished Granite stone 18 mm thick flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge. Polished granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	Sqm	32.29	2813.00	90822.41
32	Coloured Granite stone tiles 15mm to 20mm thick in skirting, risers of steps, dado walls and pillars laid in 12.5mm thick cement mortar 1:3 (1 cement 3 coarse sand) and jointed with neat cement slurry mixed with pigment to match the shade of stone, including rubbing and polishing including labour for fixing dowel pins and cramps.	Sqm	155.98	3278.00	511293.26
Total					
A&C slip no.5C CSR 2020 GST difference@5.35% on all CSR items					264,90,640.96
Grand Total					14,17,249.29
					279,07,890.25
PUBLIC HEALTH					

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1	Providing, Laying, fixing & jointing of P.V.C. Pipes as per ISI-4985 (ISI marked with the prior approval of Engineer-in-Charge) along the Trenches and laying the same in Trenches to correct alignment and gradients, cutting, jointing and testing complete as per specifications. 110mm o/d PVC pipe of 4 Kgf. / sqcm	Mtr	164.00	312.57	51261.48
2	CONCEALED IN WALL: Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes as per IS 15778 (ISI marked with the prior approval of Engineer-in-Charge), having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing including jointing of pipes & fittings, with one step CPVC solvent cement and testing of pipes complete as per direction of Engineer-in-Charge. SDR 11 CPVC pipes & fittings 20mm o/d	Mtr	236.00	221.35	52238.60
3	Providing and fixing in position SWR UPVC special for soil waste vent or anti syphonage pipes as per as per IS - 14735 including cutting and wastage etc. cutting holes in walls roofs or floors etc. and making good to its original condition but excluding cost of lead joining. For 110mm o/d pipes				
3.1	Single Tee				
3.2	Elbow 90 Degree (All side socketed)	Each	44.00	195.68	8609.92
3.3	P Trap/Floor Trap 110mm x 75mm	Each	48.00	154.31	7406.88
		Each	44.00	294.45	12955.80
4	Providing and fixing in position Chinaware European type water closet P trap or S trap of approved make (to the approval of the Engineer-in-charge) consisting of 10 ltr. PVC flushing cistern ISI marked, PVC short bend 32 mm dia including cost of seat cover complete in all respect and to the entire satisfaction of Engineer-in-charge.	Each	24.00	4780.00	114720.00
5	Providing and fixing jet spray with 2'-6" long PVC pipe. With C.P. Brass nut	Each	24.00	476.00	11424.00
6	Providing & Fixing in position stop cock / Angle valve of approved make (to the approval of Engineer-in-charge) complete in all respect. C.P. brass 15mm Concealed stop cock with flange.	Each	24.00	1204.00	28896.00
7	Providing and fixing in position SS Grab Bar Grade 304 of approved make (to the approval of the Engineer-in-charge) fixed in to wall with brass screws complete in all respect. 35mm dia 450mm (18") long	Each	4.00	1218.00	4872.00
8	Providing and fixing in position vitreous Chinaware white Indian make large flat back or angular lipped front urinal 375 x 390 x 590 mm of approved make (to the approval of the Engineer-in-charge) consisting of C.P. brass Urinal waste Coupling dome type 32mm outer length 75 mm, C.P. brass Urinal Spreader Ocular- Regular and C.P. brass tube connection 300 mm long complete.	Each	12.00	6551.00	78612.00
9	Providing and fixing P.V.C Waste Pipe Collapsible 32mm complete in all respect.	Each	28.00	113.00	3164.00
10	Providing and fixing partition for different type of urinals. 19 to 20 mm thick Granite stone partition size 375mm x 750mm	Each	12.00	1079.00	12948.00
11	Providing and fixing in position C.P. brass Tumbler Holder of approved make (to the approval of Engineer-in-charge) fixed into wall with rawl plugs and C.P brass screws complete in all respect.	Each	16.00	778.00	12448.00
12	Providing and fixing Stainless steel health faucet complete in all respect.	Each	24.00	1139.00	27336.00
13	Providing and fixing in position vitreous chinaware white lavatory suites of approved make (to the approval of Engineer-in-charge) including Rack Bolt Screw Pair 115mm long without CP fittings complete in all respect. size 44cm dia (under counter round)	Each	22.00	2783.00	61226.00
14	Providing and fixing in position 15mm C.P. Pillar cock foam flow of approved make (to the approval of Engineer-in-charge)	Each	22.00	935.00	20570.00

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15	Providing and fixing in position C.P. brass bottle trap 32mm dia with 40 mm seal of approved make (to the approval of Engineer-in-charge) complete in all respect.	Each	22.00	1122.00	24684.00
16	Providing and fixing in position C.P. brass soap dish of approved make (to the approval of Engineer-in-charge) fixed into wall with rawl plugs and C.P brass screws complete in all respect.	Each	22.00	843.00	18546.00
17	Providing & Fixing in position liquid soap container of approved make (to the approval of Engineer-in-charge) complete in all respect. C.P. brass liquid soap container	Each	22.00	1855.00	40810.00
18	Providing & Fixing in position 5mm thick bevelled edge mirror of superior glass (of approved make) complete with 4mm thick hard board backing fixed in with rawl plugs 50mm, C.P. brass screws and washers and S/S Studs on top complete in all respect (as required by the Engineer-in- Charge) Size 550mmx400mm	Each	22.00	1116.00	24552.00
19	Providing & Fixing in position C.P. Brass flange Dome of approved make (to the approval of Engineer-in-charge) under various fixtures complete in all respect.	Each	100.00	63.00	6300.00
20	Providing & Fixing in position C.P. Brass extension piece 25mm long to 100mm long of approved make (to the approval of Engineer-in-charge) with various fixtures complete in all respect. C.P. Brass extension piece, 25mm long to 50mm long	Each	100.00	107.00	10700.00
21	Providing & Fixing in position C.P. Brass Hexa Nipple 15mm of approved make (to the approval of Engineer-in-charge) complete in all respect.	Each	36.00	83.00	2988.00
22	Providing & Fixing in position 15 mm i/d bib cock of approved make (to the approval of Engineer-in-charge) complete in all respect. C.P. brass Bib cock long nose/ long body foam flow without flange	Each	36.00	1153.00	41508.00
23	Providing & Fixing in position stop cock / Angle valve of approved make (to the approval of Engineer-in-charge) complete in all respect. C.P. brass 15mm Angle valve without flange	Each	80.00	826.00	66080.00
24	Providing & fixing in position PVC flexible tube connection of approved make (to the approval of Engineer-in-charge) complete in all respect. PVC tube connection of size 15 mm x 450 mm with C.P. Brass nut	Each	80.00	182.00	14560.00
25	Providing and fixing in position SS Grating with frame of approved make (to the approval of engineer in-charge) complete in all respects.	Each	80.00	110.66	8852.80
Total					768269.48
A&C slip no.5C CSR 2020 GST difference@5.35% on all CSR items					41102.42
Grand Total					809371.90

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CLIENT NAME : REGISTRAR , SRI GURU GRANTH SAHIB WORLD UNIVERSITY, SRI FATEHGARH SAHIB, PB.

PROJECT NAME:- INTERNAL CONSTRUCTION OF 7th & 8th FLOOR OF SRI GURU GRANTH SAHIB WORLD UNIVERSITY (ACADEMIC BLOCK), SRI FATEHGARH SAHIB, PB.

ELECTRICAL, CCTV AND NETWORKING

Sr. No.	CSR Ref.	Description	Unit	Qty	Rate in Rs:	Premium %age	Amount in Rs:
1	34.01	RECESSED AIR CONDITIONER SUPPLY TERMINAL POINT (USED FOR HGW, PVC CONDUIT & HDPE PIPE WIRING SYSTEM WITH MODULAR ACCESSORIES):					
	(ix)	Wiring air conditioner supply terminal point recessed in wall etc., complete with powder coated/anodized concealed metal boxes required for suitable number of modules (Modular accessories) for having 25Amp. combined/ universal Socket (shuttered) and modular motor starter 25Amp. (2Module), covered with Frame Plate and other petty material etc. including the cost of above material, cutting and filling up of chases (with finishing the surface):-					
		Wiring AC supply terminal point having 1No. 25Amp. universal Socket (shuttered) erected at AC height and 1No. Motor starter 25Amp. erected at switchboard height.	Each	55	654	20%	43164.00
2	34.01	RECESSED COMPUTER SUPPLY TERMINAL POINTS (USED FOR HGW, PVC CONDUIT & HDPE PIPE WIRING SYSTEM WITH MODULAR ACCESSORIES):					
	(x)	Wiring Computer supply terminal points recessed in wall etc., complete with powder coated/anodized concealed metal boxes required for suitable number of modules (Modular accessories) for having 6Amp. 2/3 universal socket (shuttered), 16/20Amp. combined/ universal Socket (shuttered), 6/10/16/20Amp. Switches and blanking plate etc., and covered with Frame Plate and other petty material etc. including the cost of above material, cutting and filling up of chases (with finishing the surface):-					
	(a)	Wiring Computer terminal point having 3 Nos. 6Amp. 2/3 universal socket (shuttered), 1No. 16 Amp. switch with indicator and 1No. blanking plate (Modular accessories).	Each	10	560	20%	6720.00
	(b)	Wiring Computer terminal point having 2 Nos. 6Amp. 2/3 universal socket (shuttered), 1No. 16/20 Amp. Universal Socket (shuttered) and 2 Nos. 16/20Amp switch with indicator (Modular accessories).	Each	50	654	20%	39240.00
3	34.01	RECESSED TV, TELEPHONE & NETWORKING SOCKETS OUTLET POINTS (USED FOR HGW, PVC CONDUIT & HDPE PIPE WIRING SYSTEM WITH MODULAR ACCESSORIES):					

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	(xi)	Supply and erection of TV socket, Telephone socket and Networking socket points in powder coated/anodized concealed metal boxes recessed in wall required for suitable number of modules (Modular accessories) for having TV sockets, Telephone sockets RJ11 & Networking socket RJ45 (one module), covered with Frame Plate and other petty material etc., including the cost of above material, cutting and filling up of chases (with finishing the surface):-					
	(c)	Wiring Networking socket point RJ45 (one module)	Each	50	365	20%	21900.00
4	34.02	RECESSED PVC CONDUIT PIPE WIRING SYSTEM WITH MODULAR SWITCHES:					
		Wiring in PVC insulated copper conductor single core FR cable (ISI marked) overall 1.5sq. mm, 1100volts grade to be laid in heavy gauge PVC conduit pipe 20mm/ 25mm dia. (ISI Marked) recessed in wall etc., complete with powder coated/anodized concealed metal boxes (1.6mm thick with Brass lugs) required for suitable number of modules (Modular accessories) for having Step type electronic fan regulators (two module) 100watts, bell push, 6Amp. 2/3 universal socket (shuttered), 16/20Amp. combined/ universal Socket (shuttered), 6/10Amp. Switches, 16/20Amp. switches with indicator etc. and covered with Frame Plate etc., PVC connector (For Fan Box and Call Bell), Steel Hooks, Sheet metal fan box (1.6mm thick shape hexagonal), Circular junction Boxes (Four way PVC 1½" deep for walls and CI 3" deep for ceiling), bonding to earth with PVC insulated copper conductor single core FR cable (ISI marked) 1sq. mm, 1100volts grade (For 6Amp. wall socket & plug control point) and other petty material etc.,					
	(i) a	Wiring fan point (Without fan box)	Each	120	919	25%	137850.00
	(ii)	Wiring light point	Each	250	579	25%	180937.50
	(iii)	Wiring call-bell point	Each	10	565	25%	7062.50
	(iv)	Wiring 6Amp. wall socket point	Each	40	470	25%	23500.00
	(v)	Wiring 6Amp. Plug control comprising wall socket point	Each	50	282	25%	17625.00
	(vi)	Wiring 16/20Amp. power plug control point	Each	50	363	25%	22687.50
	(vii)	Wiring light point without control switch.	Each	20	254	25%	6350.00
	(viii)	Wiring light point with double control switches.	Each	10	1007	25%	12587.50
5	34.09	PVC INSULATED FR COPPER CONDUCTOR CABLES:					
		Supply and erection of PVC insulated FR single core Unsheathed copper conductor cable (ISI marked) suitable upto 1100 volts grade confirm to IS:694/1990 left bare in pipe or casing of suitable size complete in all respect as desired by the Engineer-in-charge:-					
	(i)	Overall size 1sq.mm (Un-sheathed)	Mtr	6000	14	60%	134400.00
	(ii)	Overall size 1.5sq.mm (Un-sheathed)	Mtr	12000	18	60%	345600.00
	(iii)	Overall size 2.5sq.mm (Un-sheathed)	Mtr	10000	27	60%	432000.00
	(iv)	Overall size 4sq.mm (Un-sheathed)	Mtr	8000	39	60%	499200.00
	(v)	Overall size 6sq.mm (Un-sheathed)	Mtr	200	54	60%	17280.00
	(vi)	Overall size 10sq.mm (Un-sheathed)	Mtr	300	88	90%	50160.00
	(vii)	Overall size 16sq.mm (Un-sheathed)	Mtr	80	137	90%	20824.00
6	34.09 (xiii)	Supply and erection of PVC insulated PVC sheathed (3 core) round flexible wire with copper conductor (FR) cable (ISI marked) confirm to IS:694/1990 left bare in pipe or casing of suitable size complete in all respect as desired by the Engineer-in-charge:-					
	(b)	Overall size 1.5sq.mm (48/0.20mm), 3Core	Mtr	150	49	80%	13230.00
	(c)	Overall size 2.5sq.mm (50/0.25mm), 3Core	Mtr	80	76	80%	10944.00

7	34.09A	COPPER CONDUCTOR CABLES FOR SPECIAL ELECTRICAL SERVICES:					
		Supply and erection of CAT-6 with 23AWG solid bare copper conductor, special grade PE insulation with star separator, 4 pair unshielded Twisted Pair (UTP) industrial cable, FR PVC sheathed, Class-E, 250 MHz of bandwidth, supporting data transfer speeds upto 10 Gbps (10GBASE-T) for distances upto approximately 180-feet, cables are manufactured and tested to meet the ANSI/TIA 568-C.2 and ISO/IEC 11801 Class E standards left bare in pipe or casing of suitable size complete in all respect as desired by the Engineer-in-charge:-					
	(a)	CAT6 LAN cable	Mtr	5490	43.00		236070.00
8	34.09 A(ii)	Supply and erection of telephone cable with solid bar copper conductor, special grade PE insulation, paired, polyester taped, nylon rip cored, FR PVC sheathed, confirming to TEC specification no, G/WIR-0603 left bare in pipe or casing of suitable size complete in all respect as desired by the Engineer - in - charge:-					
	(a)	Telephone cable 0.5 sqmm, 2pair	Mtr	2500	19.00		47500.00
	(c)	Telephone cable 0.5 sqmm, 20pair	Mtr	180	148.00		26640.00
9	34.10	XLPE INSULATED LT CABLES:					
	34.10C	XLPE INSULATED UN-ARMoured CABLES (ON SURFACE):					
		Supply, laying and erection of aluminium conductor XLPE insulated PVC sheathed Un-armoured and served cable 1100 volts grade as per IS 7098 (Part-1) 1988 to be laid (On Surface) as per PWD General Specifications:-					
	(ii)	Overall size 10sq.mm (2 Core) Unarmoured (On-Surface)	Mtr	50	72	90%	6840.00
	(xxiii)	Overall size 35sq.mm (3½ Core) Unarmoured (On-Surface)	Mtr	50	170	90%	16150.00
	(xxiv)	Overall size 50sq.mm (3½ Core) Unarmoured (On-Surface)	Mtr	500	217	90%	206150.00
	(xxv)	Overall size 70sq.mm (3½ Core) Unarmoured (On-Surface)	Mtr	500	299	190%	433550.00
	(xxvii)	Overall size 150sq.mm (3½ Core) Unarmoured (On-Surface)	Mtr	180	552	95%	193752.00
10	34.11	HEAVY GAUGE WELDED CONDUIT PIPES:					
		Supply & erection of Heavy gauge welded conduit pipe (ISI marked) as per IS:9537:Part-II for wiring purposes including bends, junction boxes, Steel hooks, GI saddle clamps and other petty materials etc., where necessary including painting as per PWD General Specifications:-					
	(xi)	Supply & erection of 19/20mm dia. M.S. conduit pipe (1.6mm thick), White painted suspension rod for ceiling fan.	Mtr	92	100	25%	11500.00
11	34.12	PVC, HDPE PIPES & PVC FLEXIBLE PIPES:					
		Supply & erection of PVC Conduit Pipes (ISI marked) as per IS9537:Part-III & HDPE pipes (ISI marked) as per IS:4984:1995 for wiring purposes including bends, junction boxes, Steel hooks, M.S. saddle clamps and other petty materials etc., as per PWD General Specifications:-					
	(v)	Heavy Gauge PVC Conduit Pipe 50mm dia. (On Surface)	Mtr	50	107	40%	7490.00
	(vii)	Medium Gauge PVC Conduit Pipe 25mm dia. (On Surface)	Mtr	800	34	40%	38080.00
	(viii)	Medium Gauge PVC Conduit Pipe 32mm dia. (On Surface)	Mtr	350	53	40%	25970.00

	(x)	Heavy Gauge PVC Conduit Pipe 25mm dia. (Flushed)	Mtr	600	48	40%	40320.00
	(ix)	Heavy Gauge PVC Conduit Pipe 32mm dia. (Flushed)	Mtr	100	66	40%	9240.00
	(xii)	Heavy Gauge PVC Conduit Pipe 40mm dia.(Flushed)	Mtr	100	87	40%	12180.00
	(xiii)	Heavy Gauge PVC Conduit Pipe 50mm dia.(Flushed)	Mtr	20	120	40%	3360.00
	(xv)	Medium Gauge PVC Conduit Pipe 25mm dia. (Flushed)	Mtr	400	43	40%	24080.00
	(xvi)	Medium Gauge PVC Conduit Pipe 32mm dia. (Flushed)	Mtr	100	60	40%	8400.00
12	34.12 (xxv)	Supply and erection of PVC flexible pipe complete without compression glands, locking arrangement, check-nuts as required:-					
	(b)	PVC Flexible Pipe 25mm dia.	Mtr	50	17		850.00
13	34.14	COPPER EARTHING STRIP (As Additional Length):					
	(v)	Fixing additional Length of earthing with Copper Tape (On Surface/Flushed) with petty material as required etc.:-					
	(a)	Additional Length 20mm x 3mm thick Copper Tape	Mtr.	160	351	70%	95472.00
14	34.14	BONDING TO EARTH WITH COPPER WIRE:					
	(viii)	Bonding to existing earth with 8S.W.G. (4mm dia) copper wire behind casing or fixed with staples on wall.	Mtr.	500	75	70%	63750.00
15	34.15	SUPPLY AND ERECTION OF WIRING ACCESSORIES:					
		Supply and erection of switches, sockets and other accessories (flush piano type/modular accessories) in the existing bakelite/ modular cover frame including fixing & connections and petty material etc.:-					
	(xxvi)	Ceiling Rose (Flush Piano type)	Each	10	30	15%	345.00
	(xxvii)	Bakelite Batten Holder (Large size)	Each	50	34	15%	1955.00
	(xxviii)	Call Bell 220/230 volts AC Ding Dong	Each	10	109	15%	1253.50
	(xxxiii)	BAKELITE SHEET:					
	(b)	Supply and erection of brown bakelite sheet white glazed translucent backside painted 3mm thick (thickness not less than 3mm) on the existing metal box/ metal inspection boxes including fixing and other petty material etc.	Sq. Inch.	5000	0.95	40%	6650.00
16	34.15	PVC CHANNEL (uPVC TRUNKING):					
	(xxxix)	Supply and erection of PVC Channel (uPVC Trunking) with cover of various sizes (On Surface) on wall, Flat angle, internal & external angle, Flat Tee, End cap and mounting boxes including the cost of joint cover, fixing and other petty material etc.:-					
	(a)	PVC Channel (uPVC Trunking) 50mm x 50mm	Mtr.	50	398	15%	22885.00
	(c)	Flat Angle 50mm x 50mm	Each	5	154	15%	885.50
	(e)	External Angle 50mm x 50mm	Each	5	169	15%	971.75
	(g)	Internal Angle 50mm x 50mm	Each	5	158	15%	908.50
	(i)	Flat Tee 50mm x 50mm	Each	5	109	15%	626.75
	(k)	End Cap 50mm x 50mm	Each	5	72	15%	414.00
	(n)	Mounting Box 4-5 Module	Each	5	132	15%	759.00
17	34.16	MINIATURE CIRCUIT BREAKERS / RCBO's / RCCB's:					
	A	MINIATURE CIRCUIT BREAKERS:					

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		Supply and erection of Miniature Circuit Breaker MCB's for circuit protection against overload and short circuit current fault suitable for 240/ 415 volts 50cycles AC supply with breaking capacity of 10kA, Curve-C and low watt losses as per IS/IEC 60898-1, energy limitation class-3, true contact indication, label holder facility in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:-					
	(ii)	MCB Single Pole 6-32amp. (10kA, Curve-C)	Each	260	134	50%	52260.00
	(iv)	MCB Single Pole 50, 63amp. (10kA, Curve-C)	Each	30	321	50%	14445.00
	(vi)	MCB Double Pole 6-32amp. (10kA, Curve-C)	Each	5	408	50%	3060.00
	(viii)	MCB Double Pole 50, 63amp. (10kA, Curve-C)	Each	5	654	50%	4905.00
	(x)	MCB Triple Pole 6-32amp. (10kA, Curve-C)	Each	2	605	50%	1815.00
	(xi)	MCB Triple Pole 40amp. (10kA, Curve-C)	Each	2	836	50%	2508.00
	(xii)	MCB Triple Pole 50, 63amp. (10kA, Curve-C)	Each	20	932	50%	27960.00
	(xvi)	MCB Four Pole 50, 63amp. (10kA, Curve-C)	Each	2	1231	50%	3693.00
18	34.17	SHEET METAL DOUBLE DOOR DISTRIBUTION BOARD FOR MCB/RCBO/RCCB's:					
		Supply and erection of sheet metal Double Door Distribution Boards IP 43-IP09 metal door (dust protected) as per IS 8623-1&3, IEC 61439-1&3 suitable for flush mounting with fully insulated copper busbars, shrouded neutral bars, earth bars, cement spill protector, colorcoded interconnecting wire set, cable ties, blanking plates and circuit identifications label and of required no. of ways for mounting miniature circuit breakers/RCBO's/RCCB's in the distribution board (For SP&N distribution board with provision DP MCB's/RCCB's/ RCBO's as incomer and SP MCB's as outgoings and for TP&N horizontal distribution board with provision TPN/FP MCB's/RCCB's/RCBO's as incomer and SP MCB's as outgoings) as per PWD General specifications including connections with suitable size of thimbles and bonding to existing earth etc:-					
	(i)	SP&N Double Door Distribution Board 4 way each	Each	1	909	15%	1045.35
	(iii)	SP&N Double Door Distribution Board 12 way each	Each	5	1484	15%	8533.00
	(v)	TP&N Horizontal Double Door Distribution Board 4 way each	Each	1	2406	15%	2766.90
	(vi)	TP&N Horizontal Double Door Distribution Board 6 way each	Each	1	2965	15%	3409.75
	(xii)	AC Plug and Socket SP&N with provision of One Single Pole MCB 20amp.	Each	1	727	15%	836.05
	(xiv)	AC Plug and Socket TP&N with provision of One Triple Pole MCB 30/32amp.	Each	1	1994	15%	2293.10
19	34.17 (xvi)	Supply and erection of sheet metal double door vertical distribution boards IP 43-IP09 metal door (dust protected) as per IS:8623-1&3, IEC 61439-1&3 suitable for flush mounting with fully insulated copper busbars for each phase, 2 Nos. shrouded neutral bars, 2Nos. earth bars, cement spill protector, color-coded interconnecting wire set, cable ties, blanking plates and circuit identifications label and of required no. of ways for mounting MCCB's as incomer and outgoings SP/TP miniature circuit breakers in the distribution board as per PWD General specifications including connections with suitable size of thimbles and bonding to existing earth etc:-					

	(b)	TP&N DoubleDoor Vertical DB's 8way each (With provision of FPMCCB upto 125amp.)	Each	5	7981	15%	45890.75
	(c)	TP&N DoubleDoor Vertical DB's 12way each (With provision of FPMCCB upto 125amp.)	Each	5	10521	15%	60495.75
20	34.17 (xvii)	Supply and erection of sheet metal Cable End Box (Make is same as MCB Distribution Board) mounting on the top or bottom of the MCB Distribution Board (Either Horizontal or Vertical) to keep loose wires & cables as per PWD General specifications including petty materials etc as required:-					
	(i)	Cable End Box for TPN Vertical 4/8/12Way	Each	5	1316	30%	8554.00
21	34.22A	ON LOAD CHANGE OVER SWITCH (Without Sheet Enclosure)					
		Supply and erection of On Load Change over Switch with advance neutral UNIT (Panel mounting Cubical type) in the existing Cubical Panel Confirms to IS 13947 (Part-3) complete with G.I. Bolts, Nuts & Connections on both sides of switch with suitable size of thimbles as per PWD General Specifications:					
	(iv)	On Load ChangeOver Switch Four Pole 160amp., 415volts	Each	2	6838	35%	18462.60
22	34.23	LT PANELS & MCCB's (MOULDED CASE CIRCUIT BREAKERS):					
	34.23A	LT PANELS:					
		Designing, Supply, Erection, Testing & commissioning of indoor Type LT cubical panel enclosure (dust, vermin and interchangeable modules with facilities for extensions or reduction as per the space or requirements). The Panel shall be suitable for operation at 415+6% Volts, 50HZ, 3 phase 4 wire & earth system. The assembly manufacturer should be ISO approved and CPRI tested for short circuit of (minimum 50kA) as well as IP degree of protection (IP 54/55). Fabrication:- Panel shall be made from 14/16 SWG CRCA sheet, conforming to IS 8623/1977-82. The sheet metal used for the fabrication of control panel will be 2mm for load bearing member's door and fittings plates etc. the partitions and other non load bearing members will be fabricated out of 1.6mm sheet, the sheet will be of mild steel CRCA type. The base channel will be made out of 75 x 40 x 5mm rolled channel.					
		The door should be double folded without edge and the gasket should be 'S' type puffed neutral rubber gasket for long life. The hinges of the door should be bolted type with double hole arrangement. The panel door lock should be quick openable type spring loaded. There should not be any special tool or key to open the lock. Minimum depth 400mm / wide 300 mm for busbar/ Cable ally at the front of the panel. The panel will be free standing floor mounting type having provision for cable entry from bottom/top with cable glands etc					

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		The fabrication should be such that all the member i.e. vertical/horizontal should be detachable type i.e. total bolted. In case of any changes required at site. It should be possible then and their self without any cutting or welding. The fabrication of the panel in 3B construction fully compartmentalized type i.e. bus bar chamber as well as the cable chamber should be totally isolated from the feeder chamber. Where there crossing of the wire or bus links. It should have proper rubber gaskets or non-hygroscopic material. No live part should be in visible condition.					
		Painting:- The sheet metal is sprayed with corrosion resistant etch Primer. The finishing treatment shall be applicable with air drying paint (7/9 tank Powder coated process should present in company premises) after necessary putty work. Busbars:-The panel shall be provided with TPN aluminium busbar of suitable size according to the size of MCCB's. Busbar shall be of high conductivity (53% to 58%) E91-E Grade aluminium (1A/Sq.mm). All Busbar will be air insulated with codified in Red, Yellow, Blue & Black as per standard for cable termination with the help of extended busbar only with proper adjustable cable supports. The main busbar would be supported upon non-hygroscopic SMC/DMC supports.					
		Metering:-The panel shall be completed with digital metering unit (with selector switches, voltmeter & ammeter) epoxy insulator, gasket, PVC sleeves, CT's & L.E.D. type indicator etc. Manufacturer of Panel should be CPRI Approved (Approval not older then 5 years) & ISO certified (Manufacturer workshop as per ISO 9001: 2015 standard) The Concerned contractor shall be approved the detailed drawing of panel with complete specification from the Engineer in charge at site. Detail of capacities of MCCB's to be installed in the cubical panel Enclosure (Excluding the cost of MCCB's) as per following:-					
	(iv)	LT Panel enclosure having space for 1No.Incomer MCCB 250Amp. and 8Nos. outgoing MCCB's 40amp. to 100amp. according to the requirement at site (Approx. size 1575 x 1700 x 400mm)	Each	4	91461.00	15%	420720.60
23	34.23B	MCCB's (FOR PANELS & SHEET ENCLOSURE):					
		Supply and erection of Moulded Case Circuit Breaker (Panel mounting Cubical type) in the existing Cubical Panel (confirm to IEC:60947-2) having Ics=100% Icu, 100% neutral with spreader terminal links, Extended rotary handle and relevant PWD general specifications complete with G.I. Bolts, Nuts & Connection on both sides of MCCB with suitable size of thimbles etc:-					
	(ii)	MCCB Four Pole 63/80/100amp., 415volts, $\geq 36A$ Fixed Magnetic and Adjustable Thermal Setting	Each	32	5251.00	50%	252048.00
	(vi)	MCCB Four Pole 250amp., 415volts, $\geq 25kA$ Fixed Magnetic and Adjustable Thermal Setting	Each	4	10425.00	50%	62550.00
24	34.23C	MCCB's (MOULDED CASE CIRCUIT BREAKER):					

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		Supply and erection of Moulded Case Circuit Breaker (Panel mounting Cubical type) in the existing Cubical Panel (confirm to IEC:60947-2) having Ics=100% Icu, 100% neutral with spreader links and relevant PWD general specifications complete with G.I. Bolts, Nuts & Connection on both sides of MCCB with suitable size of thimbles etc:-					
	(ii)	MCCB Four Pole 63/80/100amp., 415volts, $\geq 25kA$ Fixed Magnetic and Adjustable Thermal Setting	Each	10	4493	50%	67395.00
25	34.25	CABLE TRAY:					
		Supply and erection of MS perforated cable tray (MS Sheet thickness 2mm) with DA gray paint on the existing surface with the help of MS angle iron support (to be painted with approved paint) of size 50mm x 50mm x 6mm thick to be fixed with fastners/ nut & bolts etc., complete in all respect as desired by the Engineer-in-charge and as per PWD General Specifications:-					
	(i)	Cable Tray Size 150mm x 50mm x 50mm (2mm thick)	Mtr	130	723	40%	131586.00
	(ii)	Cable Tray Size 300mm x 50mm x 50mm (2mm thick)	Mtr	24	987	40%	33163.20
	(iii)	Cable Tray Size 450mm x 50mm x 50mm (2mm thick)	Mtr	115	1290	40%	207690.00
26	34.38	MS CHANNELS/ FLATS:					
	(xv)	Supply and Erection of MS angle iron (Channel)/ MS Flats of suitable size with cutting, bending and necessary holes as desired by Engineer-in-charge at site:-					
	(a)	MS angle iron size 50mm x 50mm x 5mm thick	Mtr	20	281	20%	6744.00
	(e)	MS angle iron size 100mm x 50mm x 6mm thick	Mtr	20	503	20%	12072.00
	(f)	MS angle iron size 75mm x 40mm x 4mm thick	Mtr	20	397	20%	9528.00
	(g)	MS flat iron size 50mm x 5mm thick	Mtr	20	124	20%	2976.00
27	34.38A	Supply Erection of heavy duty aluminium thimbles/lugs for cable end termination duly crimped including making necessary connectioned completely:-					
	(ii)	Aluminium cable core size 10 sq. mm to 16 Sqmm	Each	40	14		560.00
	(iii)	Aluminium thimble cable Core size 25 35sq.mm	Each	30	17		510.00
	(iv)	Aluminium thimble cable Core size 50sq.mm	Each	60	27		1620.00
	(v)	Aluminium thimble cable Core size 70sq.mm	Each	16	30		480.00
	(viii)	Aluminium thimble cable Core size 150sq.mm	Each	32	43		1376.00
28	34.38B	Supply and erection of heavy duty Copper thimbles/lugs for cable end termination duly crimped including making necessary connections etc. completely:-					
	(i)	Copper cable core size 4 sq. mm - 6 sq. mm	Each	80	18	15%	1656.00
	(ii)	Copper cable core size 10 sq. mm - 16 sq. mm	Each	48	22	15%	1214.40
		Total					5065082.45
		Add 5.35% on all above items					270981.91
		Total Amount (A)					5336064.36
	A	CCTV & NETWORKING:-					
29	NS	Supply & Installation of 1.5Mtr Cat-6 UTP 24 AWG Patch Cord, Plug 30U Snagless as approved by the Engineer-in-charge at site.(Make:AMP/Molex/Legrand)	Each	100	250.00		25000.00
30	NS	Supply & Installation of 6 core armond OFC (optical fibre Cable) as approved by the Engineer-in-charge at site.(Make:AMP/Molex/Legrand)	Mtr	150	55.00		8250.00

31	NS	Supply & Installation of SFP module 1G as approved by the Engineer-in-charge at site.(Make:Cisco/Extreme/BROCADE)	Each	4	9800.00		39200.00
32	NS	S/E and laying of Rack 12U with 3-socket power strip, including cable manager and tray . complete in all respect as desired by Engineer-in-charge at site (Make: NETRACK/VALRACK/Comrack/Legrand)	Each	3	13500.00		40500.00
33	NS	S/E and laying of Rack 15U with 3-socket power strip, including cable manager and tray . complete in all respect as desired by Engineer-in-charge at site (Make: NETRACK/VALRACK/Comrack/Legrand)	Nos	2	17800.00		35600.00
34	NS	Supply & Installation of 24 port patch panel fully loaded complete in all respect as desired by Engineer-in-charge at site (Make: NETRACK/VALRACK/Comrack/Legrand)	Nos	5	8500.00		42500.00
35	NS	S/E of Switch. L2 24-ports Switch 10/100/1000 MBPS PoE+4Ports 10G-SFP Giga Bit Smart Managed Switch, Surge 6KV complete in all respect as approved by the Engineer-in-charge at site.(Make: Cisco/Extreme/BROCADE)	Nos	5	62000.00		310000.00
36	NS	Supply, Installation, Testing & Commissioning of 5MP IP Network TDN Low-Light IR Rugged Dome/Bullet Camera, 1/2.8" CMOS or better, 5MP @ 30fps or better, triple stream at various resolution & Frame Rates, Min. Illumination required 0.007 lux @ F2.0 (color), 0 Lux IR On, 2 IR LEDs Smart IR with upto suitable IR distance, Auto ICR (Infrared Cut Filter) 120dB True WDR, S/N Ratio 50db, Shutter Speed 1/8 - 1/32,000; Advance Video Compression technology such as H.265 & H.264 High Profile & MJPEG , Triple stream, 2.8 mm, BLC, HLC, WDR, 3DNR White Balance, Minimum Edge Intelligence Video Analytics : : People Counter, Multi Loitering, Intrusion, Tampering, Smart Motion Detection (SMD), Motion Detection, 4 Privacy Mask, 8 Region-Of Interest, TLS1.2, Dual channel Audio, 256GB SD card support, PoE (802.3 af) and 12V DC, Max 6W, IP 67, IK 10 vandal proof, Having Operating temp range : -40°C to 60° C. Certifications: ONVIF Profile S/G/T compliant.	Each	20	18000.00		360000.00
37	NS	Supply Installation Testing and Commissioning Hard Disk drives 10 TB to increase the storage of server complete in all respect as approved by the Engineer-in-charge at site. (Make: WD/SEAGATE)	Each	2	30000.00		60000.00
38	NS	Supply, Installation, Testing and commissioning of 32 Channel 4K NVR supporting 4 no. Sata 10 TB HDD with HDMI cable Complete in all respect as desired by Engineer-in -Charge at site Makes : (SONY/PELCO/AXIS/ Bosch/ Honeywell)	Nos	2	85000.00		170000.00
39	NS	Supply Installation Testing and Commissioning of LFD 55-Inch HD Resolution Connectivity:2 x HDMI , 2 x USB, Headphone 3 Years Warranty From Manufacturer Eye Saver Mode + Flicker Free with wall mount stand and HDMI cable complete in all respect as approved by the Engineer-in-charge at site. (Make:Sony/Samsung/LG)	Each	2	36000.00		72000.00
40	NS	Supply Installation Testing and Commissioning of 2000VA Online UPS line Interface with 30 line interface minutes Backup complete in all respect as approved by the Engineer-in-charge at site.	Each	2	40000.00		80000.00

41	NS	Supply Installation Testing and Commissioning of 1000VA Online UPS line Interface with 30 line interfece minutes Backup complete in all respect as approved by the Engineer-in-charge at site. (Make:APC/Emerson)	Each	3	22000.00		66000.00
		TOTAL NETWORKING AMOUNT	Total (B)				1309050.00
			Grand Total Amt. (A+B)				6645114.36
		8th floor					6645114.36
		7th Floor					13290228.72
		Total Amount					

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CLIENT NAME : REGISTRAR , SRI GURU GRANTH SAHIB WORLD UNIVERSITY, SRI FATEHGARH SAHIB, PB.

PROJECT NAME:- INTERNAL CONSTRUCTION OF 7th & 8th FLOOR OF SRI GURU GRANTH SAHIB WORLD UNIVERSITY (ACADEMIC BLOCK), SRI FATEHGARH SAHIB, PB.

FIRE FIGHTING

Sr. No.	CSR Ref. No.	Description	Unit	Qty	Rate	Premium %age	Amount
1	28.12	Providing and fixing of FIRE EXTINGUISHER, ABC Powder type (stored pressure) as per IS: 15683 complete with all accessories as per Manufactures Specification. ISI Mark complete in all respect.					
	c.	6 Kg. Capacity	Each	14	2790.98		39073.72
2	28.13	Providing and fixing of FIRE EXTINGUISHER, CO2 type as per IS: 15683 complete with all accessories as per Manufactures Specification. ISI Mark complete in all respect.					
	c	4.5 Kg. Capacity	Each	14	6787.08		95019.12
3	34.09	PVC INSULATED PVC SHEATHED FR ROUND FLEXIBLE COPPER CONDUCTOR CABLE:					
	(xii)	Supply and erection of PVC insulated PVC sheathed FR (2Core) round flexible wire with copper conductor cable (ISI marked) confirm to IS:694/1990 left bare in pipe or on surface with cleats of suitable size complete in all respect as desired by the Engineer-in-charge:-					
	(d)	Overall size 1.5sq.mm. (48/0.20mm), 2Core for fire alarm	Mtr	980	35.00	50%	51450.00
4	34.09 A (iii)	Supply and erection of fire survival cable for fire alarm & PA system with annealed stranded copper conductor fire resistant mica tape wrapped (at 950° C for 180 minutes), XLPE insulated, LSHZ (low smoke & Zero Halogen) bedding, L&ZH (low smoke & zero halogen) red outer sheath, galvanized steel wire armour, 600/1000 volts grade, Fire resistant to IEC 331 & BS7846 F2/BS6387 & CWZ, Acid gas emission to BS EN 50267 (IEC60754), smoke emission to BS EN 50268 (IEC61034) and flame propagation to BS EN 50265, BS EN 50266 (IEC 60332-3) left bare in pipe or casing or on surface with cleats of suitable size complete in all respect as desired by Engineer-in-charge.					
	(a)	Fire Survival cable 2 core x 1.5 sq. mm	Mtr	2300	280.00		644000.00
5	34.12	PVC, HDPE PIPES & PVC FLEXIBLE PIPES:					
		Supply & erection of PVC Conduit Pipes (ISI marked) as per IS9537-Part-III & HDPE pipes (ISI marked) as per IS:4984:1995 for wiring purposes including bends, junction boxes, Steel hooks, M.S. saddle clamps and other petty materials etc., as per PWD General Specifications:-					
	(ii)	Heavy Gauge PVC Conduit Pipe 25mm dia. (On Surface)	Mtr	200	39.00	40%	10920.00
	(x)	Heavy Gauge PVC Conduit Pipe 25mm dia. (Flushed)	Mtr	100	48.00	40%	6720.00
6	28.28	Providing & fixing Fire Hydrants with jointing including all carriages complete. (without Fire Hydrant surface box) Size 80mm complete in all respect.					
	b.	C.I Fire Hydrants S.V. Type IS-909	Each	4	11887.03		47548.12

7	28.11	Supplying, Installation, Testing and Commissioning of RRL FIRE hose Type A, IS:636, 63mm dia x 15m long with gunmetal male & female couplings (ISI marked) bound & riveted to hose pipes with copper rivets and copper wire as required.	Each	4	4471.85	17887.40
8	28.12	Supplying, Installation, Testing and Commissioning of First Aid-fire Hose reel with MS construction spray painted in post office red, confirming to IS 884 with upto date amendments, complete with rubber hose pipe (IS:444/1987) 20mm dia 30 meter long type- 2, hose reel Drum with bracket as per IS:884, 20mm dia GM nozzle and 20mm dia GM gate valve as required complete with G.I pipe connection with main pipe complete in all respect.	Each	4	9048.00	36192.00
9	28.12	Supplying, Installation, Testing and Commissioning of weather proof cabinet for hose fabricated out of 1.6mm thickness M.S. sheet with front glass door having locking arrangement, suitable to accommodate all the necessary pipes, accessories, fittings etc including painting the metal portion with one coat of ready mixed primer paint and two coats of synthetic enamel paint of approved shade and quality, sign writing etc.				
	d	1200 mm wide x 900 mm high x 400 mm deep Size	Each	4	6737.26	26949.04
		Total				975759.40
		Add 5.35% on all above items				52203.13
		Total Amount (A)				1027962.53
10	NS	SITC of Microprocessor based Intelligent Addressable Main Fire Alarm Control Panel with Suitable Loops modules and each loop capable of supporting not less than 250 devices (detectors & modules should be in any combination) : Loop length up to 1.5 km, 8" Color LCD touch screen display with bright colors to indicate alarms and events, 4 Nos of Integrated Ethernet Ports & 2 Nos of RS 485 for networking, 200 Nos of Soft programmable keys with status indicators for individual triggering of NAC Outputs, evacuation speaker zones, AHU Modules, Damper switch, Smoke extraction Fans, Lifts, etc. The Panel shall support 10000 history logs in the non volatile memory (EPROM), power supply unit (230 ± 5% V, 50 Hz), 24 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel should also have IP30 or better protection. Four Loop panel shall have seamless integration with EVAC certified Public Address System and shall be complete in all respect as approved by the Engineer-in-charge at site (Make:- Autronica/ Notifire / Bosch /Siemens- EN)	Each	1	365000	365000.00
11	NS	SITC of Analog Addressable type Active Repeater Fire Alarm Panel with Backlit LCD display, having controls for reset, mute, accept, silence alarms and self test conforming to BS5839 standards with all labour and materials required to complete the job in all respect up to the entire satisfaction complete in all respect as approved by the Engineer-in-charge at site (Make:- Autronica/ Notifire / Bosch /Siemens- EN.)	Each	1	107000	107000.00

12	NS	SITC of addressable multisensor smoke detector including mounting base with LED, etc. complete as required with 2 inbuilt Isolators as per NFPA 72 style 7 wiring requirements (one for incoming and one for outgoing line) for maintaining operational availability of all elements in the loop in the event of a short circuit and to meet style 7 requirements; Drift Compensation feature & Automatic addressing. Detector should monitor Electromagnetic interference and report to the panel current and average values. Detector should have IP40 or better protection rating. EMC safety for detector shall be 50 V/m. Shall be UL/EN/VDS certification. (Detectors without Inbuilt Isolators may be considered with an additional Isolator Module per detector) complete in all respect as approved by the Engineer-in-charge at site (Make:- Autronica/ Notifire / Bosch /Simens- EN)	Each	180	2620	471600.00
13	NS	SITC of addressable Heat detector with fixed and rate of raise feature including mounting base with LED, etc. complete, as required. Each Detector should have 2 inbuilt Isolators as per NFPA 72 style 7 wiring requirements (one for incoming and one for outgoing line) for maintaining operational availability of all elements in the loop in the event of a short circuit and to meet style 7 requirements. High resistance to electromagnetic effects in accordance with EFGS agreement EFGS/F/97/005. Detector should monitor Electromagnetic interference and report to the panel - current and average values. Detector should have IP40 or better protection rating. EMC safety for detector shall be 50 V/m. Shall be UL/EN/VDS certification. (Detectors without Inbuilt Isolators may be considered with an additional Isolator Module per detector) complete in all respect as approved by the Engineer-in-charge at site (Make:- Autronica/ Notifire / Bosch /Simens- EN)	Each	4	2600	10400.00
14	NS	SITC of addressable Single ACTION manual pull station & necessary fixing arrangements with key complete as required. MCP should have IP40 or better protection rating. Shall be UL/EN/VDS Certified. Make:- Autronica/ Notifire / Bosch /Simens- EN	Each	10	4000	40000.00
15	NS	SITC of Addressable Control Relay Module with flexible network structures with a maximum switching current of 1A @ 30V DC. Shall be EN54/UL/VDS Certification. Make:- Autronica/ Notifire / Bosch /Simens- EN	Each	10	4390	43900.00
16	NS	SITC of Addressable Monitor Module for monitoring of a line with EOL resistor/ Potential free contact/voltage monitoring shall be EN54/UL/VDS approved. (In case of 2 monitoring features in one module (points) each point shall be consider separately for payment) complete in all respect as approved by the Engineer-in-charge at site (Make:- Autronica/ Notifire / Bosch /Simens- EN)	Each	10	4390	43900.00

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17	NS	SITC of Sounder cum strobes with 3 different tone variants selection options & adjustable sound pressure by 3 levels, the sound pressure 92 dB(A), Sounder should have IP40 or better protection rating, with flasher having Synchronized flash rate of 1 Hz and Light intensity 15cd-185cd. Shall be UL/EN/VDS Certified complete in all respect as approved by the Engineer-in-charge at site(Make:- Autronica/ Notifire / Bosch /Simens- EN).	Each	10	8000	80000.00
18	NS	SITC of controller unit 6-zone system pre-amplifier 240 amplifier Inbuilt Bluetooth and USB pen drive. Two input channels for call stations , Universal input for microphone/line, with speech optimized tone control , Three inputs for BGM selection and music optimized tone control , Front panel zone selection for BGM and call station zone selection for calls, S/N (flat at max volume) >63 dB (mic), >70 dB (line), S/N (flat at min volume/muted) >75 dB, CMRR >40 dB (50 Hz – 20 kHz), Line input 3 x, Master output 1 x, Frequency response 50 Hz to 20 kHz (+1 / -3 dB) complete in all respect as approved by the Engineer-in-charge at site(Make:- Autronica/ Notifire / Bosch /Simens- EN)	Each	2	320000	640000.00
19	NS	SITC of Stylish 6-zone call station, Six zone selection keys, allcall key and momentary PTT key for calls Selectable gain, speech filter and limiter for improved intelligibility LED indications for zone selection, fault and emergency state Voltage range 18 – 24V Nominal sensitivity 85 dB SPL (gain preset 0dB) Gain preset +6 / 0 / -15 dB Equivalent input noise level 25 dB SPL A Frequency response 100Hz – 16kHz complete in all respect as approved by the Engineer-in-charge at site(Make:- Autronica/ Honeywell/ Bosch)	Each	2	64000	128000.00
20	NS	SITC of Booster amplifier 480 watts Frequency response: 60 Hz to 15 kHz (+1/3db), Inputs :XLR & phone jack , Input 1, Input 2-4, Impedence :20kΩ, Sensitivity : 1 V balanced , S/N >: >85 dB complete in all respect as approved by the Engineer-in-charge at site(Make: Bosch/ Siemens / Honeywell)	Each	2	60000	120000.00
21	NS	SITC of Cabinet Speaker Max Power - 9 W ,Rated power (PHC) - 6 W(6-3-1.5), Sound pressure level at rate power /1 w ,(at1kHz,1m) (at 1 kHz, 1 m) - 96dB/ 90dB,Effective frequency range (-10 dB) - 200-15000 Hz,Opening angle (at 1 kHz/4 kHz, - 6 dB),In degrees - 150/70, Rated voltage - 100 V, Rated impedance - 1667 complete in all respect as approved by the Engineer-in-charge at site (Make:- Autronica/ Notifire / Bosch /Simens- EN)	Each	14	1250	17500.00
22	NS	SITC of 18U Equipment Rack with provision for housing all control equipment with front & rear door, Blower for cooling and proper locking arrangements and as per the specifications, complete in all respect as approved by the Engineer-in-charge at site(Make:- Valrack /Netrack/ Comrax)	Each	2	17500	35000.00
23	NS	SITC of 2 KVA UPS cum Inverter with 1 hour Backup complete in all respect as approved by the Engineer-in-charge at site (Make:- Luminous /APC/Emerson)	Each	2	105900	211800.00
Total Amt. (B)						2314100.00
8th floor						3342062.53
7th Floor						3342062.53
Total Amount						6684125.06