

TENDER DOCUMENT VOL - II
(FINANCIAL BID)

CONSTRUCTION OF EXTENSION TO THE OFFICE BUILDING OF
THE ICSI- KOCHI CHAPTER

Consultant:
M/s Safe Matrix Architectural & Engineering Consultants (I) Pvt Ltd.
Manapattu Building, First Floor,
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**THE INSTITUTE OF
Company Secretaries of India**
भारतीय कम्पनी सचिव संस्थान
IN PURSUIT OF PROFESSIONAL EXCELLENCE
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(Under the jurisdiction of Ministry of Corporate Affairs)

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FINANCIAL BID
SCHEDULE OF QUANTITIES

SUMMARY

Sl. NO.	DESCRIPTION	AMOUNT(Rs.)
A	CIVIL & STRUCTURAL WORKS	
B	EXTERIOR & INTERIOR WORKS	
C	PLUMBING & SANITARY WORKS	
D	ELECTRICAL WORKS	
E	ELV SYSTEM	
F	FIRE	
	SUB TOTAL-	

A	CIVIL & STRUCTURAL WORK				
S.No	Description	Unit	Quantity	Rate	Amount
I	Demolishing work				
1	Demolishing brick work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer	cum	4.48		
2	Demolishing brick work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-Charge. In cement mortar	cum	5.05		
3	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. For thickness of tiles 10 mm to 25 mm	Sq.m.	10		
4	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. For thickness of tiles above 25 mm and up to 40 mm	Sq.m.	10		
5	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	kg	50		
6	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of: G.S. Sheet	Sq.m.	40		
7	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	cum	8.76		
8	Raking out joints in lime or cement mortar and preparing the surface for re-pointing or replastering, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in- Charge.	Sq.m.	72.45		
9	Drilling and fixing 25,20&16 mm dia dowel bars,where ever specified by Engineer-in-charge, for a development length as specified for TOR steel in concrete in chemical grout grout as per drawings and instructions with all cost and conveyance of all equipments, materials, drill bits and labour charges etc. complete for finished works except the cost of steel bars. Steel bars are to be measured separately.(Hilty RE 500 /equivalent)	No.	80		

10	Providing and applying approved rust-removing etching solution to exposed existing reinforcement to remove rust, mill scale and corrosion products, followed by cleaning and washing as per the manufacturer's recommendations, ensuring a clean metallic surface ready for application of anti-corrosion coating or repair mortar, including all materials, labour, tools, equipment, safety measures and disposal of waste, complete as directed by the Engineer-in-Charge	kg	100		
11	Providing surface preparation to existing concrete by removing all loose and unsound concrete, roughening the substrate, cleaning with compressed air/water jet to remove dust and laitance, and preparing the surface for application of bonding agent and repair mortar, complete as directed by the Engineer-in-Charge.	m ²	25		
12	Providing and applying Nitobond or approved equivalent polymer/epoxy bonding agent on the prepared existing concrete surface in accordance with the manufacturer's specifications to ensure effective bonding between existing and new concrete/repair mortar, including all materials, labour, tools, surface preparation incidental to application, and complete as directed by the Engineer-in-Charge.	m ²	25		
II	Super structure				
13	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centring, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. All work upto plinth level. Concrete of M35 grade with minimum cement content of 400 kg /cum	cum	12.04		
14	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centring, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete All works above plinth level upto floor V level. Concrete of M25 grade with minimum cement content of 360 kg /cum	cum	0.87		

15	Solid block masonry using pre cast solid blocks (Factory made) of size 30x20x20cm or nearest available size confirming to IS 2185 part I of 1979 for super structure above floor two level upto floor five level thickness 20cm and above in: CM 1:6 (1 cement :6 coarse sand) etc complete	cum	11.33		
16	Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x10cm or nearest available size confirming to IS 2185 part I of 1979 for Super structure above floor two level upto floor five level for 10 cm thick wall in: CM 1:6 (1 cement : 6 coarse sand) including cost of scaffolding etc complete	cum	0.67		
17	Providing and laying Autoclaved Aerated concrete(AAC) blocks masonry 100 mm/ 125 mm thick with Grade-1 AAC blocks of density 551 to 650 kg/cum conforming to IS:2185 (Part 3) in super structure above plinth level up to floor V level in cement mortar 1:4 (1 cement : 4 coarse sand). The rate includes providing and placing in position 2 Nos 6 mm dia M.S. bars at every third course of masonry work.	cum	3.0		
18	Centering and shuttering including strutting, propping etc. and removal of form for : Columns, Pillars, Piers, Abutments, Posts and Struts including plinth portion.	sqm	6.48		
19	Centering and shuttering including strutting, propping etc. and removal of form for : Lintels, beams, plinth beams, girders, bressumers and cantilevers,	sqm	57.81		
20	Centering and shuttering including strutting, propping etc. and removal of form for : Suspended floors, roofs, landing, balconies and axes platforms(Plan area to be measured)	sqm	99.14		
21	Centering and shuttering including strutting, propping etc. and removal of form for : Edges of slabs and breaks in floors and walls -Under 20cm wide	m	40.18		
22	Centering and shuttering including strutting, propping etc. and removal of form for Rcc wall. Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	sqm	8.16		
23	Centering and shuttering including strutting, propping etc. and removal of form for : Weather shades,chajjas etc. including edges	sqm	32.44		
24	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level- Cold twisted bars.(Thermo-Mechanically Treated bars of grade Fe-500D or more.) Thermo mechanically treated bars	Kg.	1781.07		

III	Plastering				
25	Plastering with cement mortar 1:4, 12mm thick, using M sand / river sand one coat, floated hard and trowelled smooth with all cost and conveyance of materials and labour charges etc complete.(cement 54kg per 10 m2)	Sq.m.	155.20		
26	Plastering with cement mortar 1:3, 6mm thick, one coat, floated hard and trowelled smooth , watering , curing , etc with all cost and conveyance of materials and labour charges etc complete.	Sq.m.	107.75		
27	Plastering with cement mortar 1:3, 12mm thick, two coats with waterproofing compound two coat, floated hard and trowelled smooth , watering , curing , etc with all cost and conveyance of materials and labour charges etc complete.	Sq.m.	32.44		
IV	Fabrication				
28	Steel work in built up G I tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete	kg	500		
V	Water proofing				
29 -a	Premix the two-component high strength, Hybrid Urethane using an electric double-paddle mixer at low speed for 2–3 minutes to achieve a uniform blend. Apply the first coat at a coverage rate of 0.80 kg/m ² without dilution, using a lamb's wool or cloth roller. While the 1st coat is still wet, embed a 225 gsm fiberglass chopped strand mat by rolling it into the surface, ensuring complete bonding without air entrapment or wrinkles. Allow the first coat to cure for 3–4 hours before applying the second coat at a 90° angle to the first. Overlap the fiberglass mat by a minimum of 50 mm at joints, ensuring overlaps are fully wetted for proper adhesion. Once the surface is walkable, apply the second coat at 0.60 kg/m ² , allow to cure for 3–4 hours before applying the third coat at a 90° angle to the second coat, apply the third coat at 0.60 kg/m ² with an overall material consumption of approximately 2.0 kg/m ² over 2–3 coats to achieve a total dry film thickness of 1000 microns. The system shall meet the following technical performance criteria: tensile strength ≥ 15 N/mm ² (ASTM D2370), tear strength ≥ 100 N/mm (ASTM D624), dynamic crack bridging per EN 13251:2016 and ASTM C1305-2016 (pass, no cracks), Shore A hardness 85 (ASTM D2240) and flame spread Class A. The system complies with EN 13251:2016 for a 25-year service life when installed with 225 gsm fiberglass mat reinforcement.	sqft	2329.54		
b	Protection to the waterproofing system:Supplying and applying protective geo textile fabric of 150 GSM over the entire membrane with proper overlaps.	sqft	2329.54		

c	SRI Coating: Optional Providing and applying single component, GRIHA enlisted, heat reflective environmental friendly, 100% Pure Acrylic elastomeric waterproof coating Dr. Fixit Coolroof on Terrace screed. Preparing the surface by cleaning with a brush and removing the rust using a chloride-surface by cleaning with a brush and removing the rust using a chloride- free chemical. Apply one coat of Efflorescence resistant penetrating primer Dr. Fixit Primeseal dilute with water in the ratio 2:1 spreading at the rate of 0.125litre/sqm in the SSD condition. Apply 2 coats of 100% Pure Acrylic waterproofing coating @ 0.9litre/sqm having Elongation 190% as per ASTM D 412, tensile strength 1.5 MPa, Crack bridging ability upto 1.5mm (As per EN 1062), SRI Index 108 as per ASTM E 1980- 01. SRI coating shall be applied on the entire horizontal surface extending upto parapet wall over the vertical surface. The finished cost to include surface preparation completely as per specification	sqft	2329.54		
VI	Safety protection.				
30	Providing additional construction safety facilities for second phase extension to protect the existing G+2 floors ,yard & parking area etc. more than inbuilt provisions of the items ,such as a)Providing safety net allround to a height of 4 m from second floor level,1 m away from the walls ,bottom closed to the second floor slab so as to prevent dust,sound& other falling objects of any kind downwards .This protection inevitable as the construction is done all together 643 m2 land which 60 % occupied as building ,& rest for parking,No external parking facility is near by available as the site is in the heart of the city.	sqm	94.84		
	TOTAL FOR CIVIL & STRUCTURAL WORK				
B	Exterior & Interior works				
I	Ceiling				
31	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I.				

	intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound, jointing tapes, finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding				
	the cost of painting with :				
	12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- (Part I) :2011 (Board with BIS certification marks) Note: Add necessary provision with spacing of 8 cm for fixing cove light as per the direction of the Architect in the ceiling.	sqm	107.75		
II	Flooring				
32	Providing and laying Nylon Carpet tile of standard make(like move/move on /standard) etc. as per manufactures specification ,following the method laying on a clean surface free of dust ,grese ,loose particles ,smooth surface ,plastered & finished cement mortar 1:3 9mm thick in line & level ,free of moisture ,at ideal temperature etc. complete and finished work.	sqft	1159.39		
33	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately). Size of Tile 600x600 mm	sqm	4.43		
34	Supplying and fixing Jet Black Granite over parapet wall with 25 mm projection from finished surface on both side including rounding of the edges to prevent seepage in to the compound wall.	sqm	6		
35	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as	sqm	25		

	per the direction of Engineer-in-charge. Any damage during dismantling/storage/refixing shall be contractor's responsibility				
36	Providing and laying polished Granite stone 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 colour of Black, Cherry/Ruby Red or equivalent	sqm	11.5		
37	Providing and making nosing in the step & verandah tread by pasting additional layer of polished granite and grinding, polishing to required shape as directed by the Architect including finishing smooth.	m	14.60		
iii	Painting				
38	With water thinnable cement primer on wall surface having VOC Content less than 50 g/ litre (Interior & Exterior)	sqm	296.82		
39	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete. (Interior & Exterior)	sqm	296.82		
40	Finishing walls with premium acrylic smooth exterior paint with silicon additives of required shade. (For exterior wall painting) New work (two or more coat applied @ 1.43 ltr/10sqm over and including priming coat of exterior primer applied @ 2.20kg/10sqm.	sqm	125.70		
41	Finishing walls with premium acrylic smooth exterior paint of required shade. (For interior wall painting) New work (two or more coat applied @ 1.67 ltr/10sqm over and including priming coat of exterior primer applied @ 2.20kg/10sqm.	sqm	171.11		
42	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : Two or more coats on new work	sqm	19.01		
IV	UPVC window				
43	Providing, fabricating, supplying and fixing (Three track three panel sliding window) factory-made multi-chambered UPVC windows of approved make comprising outer frames, shutters, mullions, transoms, glazing beads and accessories complete, using Class A UPVC profiles with minimum visible wall thickness of 2.3 mm $\pm$ 0.2 mm reinforced with galvanized steel reinforcement of minimum 1.2 mm thickness (or as required by design), complete with DGU consisting of 6 mm toughened glass + 12 mm air gap + 6 mm toughened glass, including complete installation as per approved drawings and specifications. It includes	sqm	21.12		

	* UPVC frames, shutters, mullions and transoms * GI reinforcement sections * Double glazed glass units complete * Glazing beads, EPDM gaskets and weather seals * Hardware including SS friction hinges, handles, locks, stays, rollers, multipoint locking etc. * Mosquito mesh shutter/screen with accessories (if applicable) * Fasteners, anchor bolts, cleats, brackets, packers and fixing accessories * Silicone sealant and perimeter weatherproof sealing * Drainage caps, end caps, cover caps, buffers and profile accessories * Cutting openings adjustments, fitting, fixing, alignment and levelling * Scaffolding, lifting equipment, labour, tools and tackles * Transportation, loading/unloading and storage at site * Protective film removal, cleaning and making good surrounding finishes * Testing for smooth operation and proper locking * Transportation, loading/unloading and storage at site * Protective film removal, cleaning and making good surrounding finishes * Testing for smooth operation and proper locking (make- saint gobain/Finesta or equivalents)				
V	Window grill				
44	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. with all cost and conveyance of materials and labour charges.	kg	227.52		
VI	External Louvers				
45	Supply and installation of Hunter Douglas louver system. Luxalon 70S - 132S sun louver panles are roll formed from .6mm thick 3 painted stove enamelled aluminium strip of a corrosion resistant alloy EN AW-3105 or its equivalent. Roll formed aluminium Z panels of 70/132 mm wide, coil coated with UV and scratch resistant LUXA COTE coating are installed vertically. The proce includes provision and installation of louvers and supporting frame work and accessories. The rate includes provision of MS frame work on the backside.	sqft	404.43		
V	Corten Steel				
46	Supply and installation of Corten steel sheets of 5mm thickness. The rate includes MS frame work and all the supporting accessories required for the work and labour charges.	sqft	10		
47	Careful dismantling of existing Corten Steel cladding / façade panels including supporting members, brackets, fasteners, anchor bolts and accessories from existing elevation, stacking, marking, handling, transportation within site, safe storage with adequate	sqm	32		

	protection against damage/corrosion, and refixing/reinstallation after completion of extension works including alignment, welding/bolting, replacement of damaged fasteners, touch-up treatment to cut edges/weld locations if required, scaffolding, labour, tools and all incidental works complete as directed by Engineer-in-Charge. Existing panels shall be numbered/marked before dismantling. Any damage during dismantling/storage/refixing shall be contractor's responsibility. Temporary supports/protection included in rate.. Contractor to verify existing fixing system before quoting				
VI	WINDOW BLINDS				
48	Providing and fixing, roll up/zebra window blinds with clutch operation (with chain, with cord). Tube size of 38/46 mm in case of zebra blinds and 38 - 83mm in case of roll up blinds. The rate includes material and installation inclusive of all accessories. ROLL UP / ZEBRA BLINDS	sqm	21.12		
VII	External Signage				
49	Design, composition, supply and insulation of building facade signage logo (with logo of institute (ICSI) of 5'-8" x 2'-6") of blue acrylic letters depth 3" rising with ACP female foam depth 1" screw with bolt with light (LED light of 1.5 watts). The logo shall be fixed with the help of stainless steel studs on existing wall/brick tile cladded wall which shall not be visible from the front. The stainless steel studs shall be properly grouted with suitable sealant. The mean height of fixing the letter is approx 7.21 mtrs from ground at the specified position as shown in the drawing. This is to be installed as per the direction of Engineer-in-charge (EIC). (SS - 18 gauge (1.587mm thickness), 304 grade) refer the drawing. (unit are in centimetres)	No.	1		
50	ACP signage: 8 x 4ft exterior grade ACP of 3mm thickness with high quality vinyl print with 18 gauge (1.270 mm thickness) 2 nos GI pole with LED light of 1.5 watts. The installation of this ready-to-use signage and wiring is to be proceeded as per the direction of Engineer-in-charge (EIC).	No.	1		
51	Supply and fixing of LG/Avery - Frosted film (sqft) for all internal and external glass partitions as per site conditions. This is to be installed as per the direction of Engineer-in-charge (EIC). To be placed where glass partitions provided. (as per site condition)	sqft	230		
VIII	Furniture				
52	Providing, supplying and placing of Chair. SEAT / BACK ASSEMBLY : The Seat is injection moulded in glass filled Polypropylene compound which is upholstered with fabric upholstery covers and moulded Polyurethane foam. The Back is injection moulded in glass filled Polypropylene compound which is upholstered with Mesh fabric (Refer colour chart for seat & Back upholstery in product catalog).	No.	80		

	* SEAT SIZE : 50.0cm. (W) x 48.0 cm. (D) * BACK SIZE : 53.0 cm. (W) x 39.0cm. (H) HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane seat foam is moulded with density 45±2 kg/m³ and hardness 16±2 kgf as per IS:7888 for 25% compression.M.S. POWDER COATED FRAMES FOR 4 LEG CHAIRS :The powder coated (DFT 50±10 microns) welded tubular main frame is made from Ø 2.54 ± 0.03 cm x 0.2 ± 0.016 cm andØ1.6±0.3mm x 0.16 ± 0.0128cm M.S. E.R.W tube. The Ø1.9 ±0.3mm x 0.12 ±0.0096 cm M.S.E.R.W. tube used as connecting member between LH & RH frames.SHOE : The shoes are made of glass filled Polypropylene compound with and pressed fitted with tubular frame. Felt is provided below the shoes. ARMREST : The Armrest are made of glass filled Polypropylene compound and assembled over the tubular frame. WIDTH (W): 63.0 CM. DEPTH (D): 58.5 CM. HEIGHT (H): 86.5 CM. SEAT HEIGHT (SH): 46.0 CM.				
53	Supply of finished furniture ready for use made in teak wood table of size 1.9mx0.5mx0.72 m with legs 75 mmx75mm scantlings ,7 .5X5 cm ,planks 25 mm etc. including, fixing ICSI logo on the front face on planks suitably to give a good aesthetic appearance as instructed by EIC. The metal ICSI logo will be supplied by the employer at free of cost.polished and finished.Supplying podium of size 45 smx60cm ,suitable enough to clamp mike ,and files ,with LED lights etc. for delivering talks				
	Table (1.9x0.5x0.72)	No.	2		
	podium (0.45X0.6X1.4 m) or suitable	No.	1		
	TOTAL FOR EXTERIOR & INTERIOR WORK				
C	PLUMBING WORK				
	110MM PVC PIPE - - 6KG /CM2				
54	Providing and fixing PVC pipes including fixing the pipe with clamps/ clips at 1.00 m spacing. This includes jointing of pipes with all fittings, with one step PVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge 110mm dia 6Kgf/cm2- External work - Exposed on wall	m	20		
55	Providing and fixing PVC pipes including jointing of pipes with all fittings, with one step PVC solvent cement , trenching, refilling & testing of joints complete as per direction of Engineer in Charge. 110 mm dia 6Kgf/cm2	m	20		
56	bend 45 6KG	No.	5		
57	bend 90 6KG	No.	5		
58	coupler 6KG	No.	5		
59	single tee	No.	5		
60	single y	No.	5		
	50MM PVC PIPE - - 6KG /CM2				

61	Providing and fixing PVC pipes including jointing of pipes with all fittings, with one step PVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge. 50 mm dia 6 Kgf/cm ²	m	12		
62	Providing and fixing PVC pipes, fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with all fittings, with one step PVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge 50mm dia 6Kgf/cm ² -External work - Exposed on wall	m	12		
	FITTINGS				
63	bend 45	No.	5		
64	bend 90	No.	5		
65	single y	No.	5		
	25MM DIA CPVC PIPE SDR 11				
66	Providing and fixing CPVC pipes including fixing the pipe with clamps/ clips at 1.00 m spacing. This includes jointing of pipes with all fittings, with one step CPVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge 25mm dia CPVC SDR 11 -External work - Exposed on wall	m	15		
67	Providing and fixing CPVC pipes, fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with all fittings, with one step CPVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge. Concealed work, including cutting chases and making good the wall etc. 25mm dia CPVC SDR 11	m	15		
	FITTINGS				
68	elbow 90	No.	10		
69	elbow 45	No.	10		
70	tee	No.	10		
	TOTAL FOR PLUMBING WORK				
D	ELECTRICAL WORK				
	WIRING				
71	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				
a	Light point wiring -one light controlled by one switch	No.	9		
72	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way 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.				
	Two Light point controlled by 2 no of 6A switch. (2way)	No.	12		
73	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.				
a	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	m	200		
b	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	m	100		
c	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	m	80		
d	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	m	40		
74	Supplying and drawing of UTP 4 pair CAT 6 LAN cable in the existing surface/recessed steel/PVC conduit as required				
a	3 run of cable	m	100		
	SWITCH BOARD				
75	Supplying and fixing following size/ modules, GI box along with modular base etc. as required				
a	1 or 2 Module (75mmX75mm)	No.	10		
b	6 Module (200mmX75mm)	No.	15		
76	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
a	5/6A Switch	No.	15		
b	2 way 5/6A Switch	No.	15		
c	15/16A switch	No.	4		
d	3 pin 5/6A socket outlet	No.	6		
e	6 pin 15/16A socket outlet	No.	4		
	CEILING FAN				
77	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CM/M/W) minimum 6.00, Air delivery minimum 210 Cum/Min, 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required	No.	6		
78	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard-length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc.as required.	No.	8		

	LIGHT FIXTURES				
79	Supply and installation of Recessed ceiling light 18W LED light. Make: Luker	No.	16		
	PVC CONDUIT				
80	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
a	20mm	m	100		
b	25mm	m	100		
c	32mm	m	15		
	PANEL BOARDS				
81	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	40A	No.	1		
b	64A	No.	1		
82	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 milli Aeres in the existing MCB DB complete with connections, testing and commissioning etc. as required				
	40A	No.	1		
	64A	No.	1		
83	Supplying and fixing 40 amps to 63 amps rating, 415 volts, "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. Triple pole				
	40A TP MCB	No.	1		
	63A TP MCB	No.	1		
84	Supplying and fixing 10 amps to 32 amps rating, 230 volts, "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. Single pole				
a	10A SP MCB	No.	5		
b	16A SP MCB	No.	5		
c	32A SP MCB	No.	5		
	TOTAL FOR ELECTRICAL WORK				
F	ELV SYSTEM				
I	Seminar Hall				

	Supply, Installation, Testing and Commissioning of Integrated presentation and streaming solution with, 86" Interactive Flat Panel 4K PTZ camera, recording/streaming system, wireless microphones, audio DSP/mixer and speakers Provides high-quality video capture, clear audio reinforcement, and intuitive operation, ideal for conferences.				
91	Supply of Passive 2-Way Professional Loudspeaker, comprising 8-inch LF woofer, frequency response 60 Hz–20 kHz, maximum SPL 125 dB, sensitivity 94 dB (1 W/1 m), nominal impedance 8 Ohms, dispersion 90°H × 80°V, continuous power handling 250 W RMS, multi- layer laminate enclosure, complete with mounting accessories, speaker cables, connectors, fixing hardware and all necessary materials for complete installation and satisfactory operation as required. (MAKE:Audibax)	No.	4		
92	Supply of Premium Sound Ceiling Loudspeaker, comprising a 6-inch full-range driver with wide dispersion characteristics for high-quality voice and music reproduction, rated at 30 W, complete with integrated mounting accessories, speaker cable, connectors, fixing hardware and all necessary accessories required for complete installation, testing, commissioning and satisfactory operation as per the Engineer-in-Charge's approval. (MAKE:Bosch)	No.	2		
93	Supply of Speaker Stand, , suitable for mounting professional loudspeakers, constructed from heavy-duty steel with adjustable height, stable tripod base, cable management provision, locking mechanism, anti-slip feet and all necessary mounting accessories, fasteners and hardware, complete for proper installation, testing and commissioning as required for satisfactory operation.(MAKE:Audibax)	No.	4		
94	Supply of 10-Channel Audio Mixer, comprising a professional-grade 10-channel mixer suitable for live sound reinforcement and audio mixing applications, complete with all standard accessories, power supply, user documentation and necessary connection accessories, ready for operation as per the manufacturer's specifications. (MAKE:Yamaha)	No.	1		
95	Supply of Professional Stereo Power Amplifier, Class AB design, with frequency response of 20 Hz–20 kHz, output power of 2 × 300 W RMS at 4 Ohms and maximum output power of 2 × 700 W, provided with balanced XLR and 1/4-inch Jack audio inputs, complete with power cord, standard accessories and user documentation, ready for operation as per the manufacturer's specifications.(MAKE:Audibax)	No.	1		

96	Supply of 86-inch Interactive Flat Panel Display (IFPD), featuring Ultra HD (4K) LED display with multi-touch interactive capability, built-in Android operating system, integrated speakers, wireless screen sharing, HDMI, USB, LAN and other standard connectivity interfaces, complete with power cord, stylus, remote control, wall mounting accessories, user documentation and all standard accessories, ready for operation as per the manufacturer's specifications. (MAKE:BENQ)	No.	1		
97	Supply of Professional Audio Converter, suitable for conversion between analogue and digital audio formats with support for standard audio interfaces such as XLR, RCA, 3.5 mm, Optical (TOSLINK), Coaxial and/or HDMI (as applicable), ensuring high-quality, low-noise audio signal conversion, complete with power adapter, connection accessories, user documentation and all standard accessories, ready for operation as per the manufacturer's specifications.	No.	1		
98	Supply of Network Switch for Video Transportation, suitable for high-bandwidth AV-over-IP and video transmission applications, featuring Gigabit Ethernet ports with non-blocking switching architecture, VLAN, QoS, IGMP Snooping and multicast support, complete with rack-mount kit (where applicable), power cord, user documentation and all standard accessories, ready for operation as per the manufacturer's specifications. (MAKE: , TP-Link)	No.	1		
99	Handheld Mic	No.	1		
100	Table stand for Mic	No.	1		
101	Gooseneck Mic	No.	1		
102	Connectors, Rack and accessories	Ls			
103	Installation & calibration charges	Ls			
II	CCTV Surveillance				
104	Supply, Installation, Testing and Commissioning of Complete IP-based solution with 5 nos -4MP bullet/dome cameras, NVR, Gigabit PoE+ smart switch with SFP slots, SFP modules, and Hardisc for recording. Provides reliable high-definition video capture, centralized storage, and efficient network connectivity for secure monitoring and management				
a	4MP IP Bullet/Dome (Manf :CP plus)	No.	5		
b	32Channel NVR (Manf :CP plus)	No.	1		
c	with 2 SFP Slots (Manf :Tplink)	No.	1		
d	SFP Module	No.	1		

e	HDD : 8TB SATA Hard disk for NVR	No.	1		
f	Connectors ,Rack and accessories	L.s			
g	Installation & calibration charges	LS			
	TOTAL FOR ELV SYSTEM				
G	FIRE				
I	SPRINKLER SYSTEM				
105	Supply, Installation, Testing and Commissioning of 15mm dia nominal bore quartzoid bulb type sprinklers with temperature rating of 68 deg C , shall also include suspending				
	Pendent sprinkler-68°	No.	12		
106	Supply, Installation, Testing and Commissioning of GI pipes of the following sizes "B" class confirming to IS : 1239 with malleable specials confirming to IS:1239 part - II, such as elbows, reducers, flanges etc. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports etc Piping shall have one coat of anticorrosive primer and over two				
	25 mm pipe	m	15		
	32 mm pipe	m	30		
II	DETECTOR SYSTEM				
107	Supply, Installation, Testing and Commissioning of detectors with all standard accessories				
	Smoke Detectors	No.	6		
III	SINGAGES				
108	Supplying and fixing in position self glowing sign boards made of luminescent safely, rigid sheet in green colour, photo luminescent with two hanging chains & necessary supports to				
a	No smoking	No.	3		
b	Main Exit	No.	2		
c	Fire Exit	No.	2		
d	Fire lift	No.	1		
IV	EXTINGUISHER				
109	Supply, Installation of Fire Extinguisher dry chemical powder (ABC) stored pressure type 4 kg capacity as per ISI: 15683 with ISI mark, and with initial charger and installation brackets. Make : NewAge/Safex/Safepro	No.	3		
110	Supply, Installation of Fire Extinguisher Modular ABC type fire extinguisher ISI mark , 5 kg	No.	1		
	TOTAL FOR FIRE				

