

**CONSTRUCTION OF CENTRAL/DIGITAL LIBRARY AT SMBBMU, LARKANA  
SINDH.**

**BILL OF QUANTITIES**

**SUMMARY OF COST**

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh with Additional Cost as per Notification  
No. IV/2(IV)-SO(RATES), Dated 1st December 2021

<b>Sr. No.</b>	<b>DESCRIPTION</b>	<b>AMOUNT</b>
1.	CIVIL WORKS	
2.	PUBLIC HEALTH WORKS	
3.	ELECTRIC WORKS	
	<b>TOTAL</b>	
	<b>ADD SRA / PST</b>	
	<b>GRAND TOTAL</b>	

**CONSTRUCTION OF CENTRAL/DIGITAL LIBRARY AT SMBBMU, LARKANA SINDH.**

**BILL OF QUANTITIES**

**CIVIL WORKS**

**Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh with Additional Cost as per Notification No. IV/2(IV)-SO(RATES), Dated 1st December 2021**

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
1	C-1/18(b)	Excavtion in foundation of Building Bridges and other structures including dagbelling dressing,refilling around structrure with excavated earth Watering and ramming lead upto 5 ft in Ordinary Soil.	%0Cft	91223.17	3176.25	289747.60
2	C-18/92	Providing Anti -termmite treatment by spraying /sprinkling /spreading Neptachlar 0.5% Emulsion as an overall pre - construction treatment in slab type construction under the slab and along attached perches or entrances etc, complete as per directions of Engineer Incharge.	P.Sft	51467.98	9.74	501298.13
3	C-4/5(i)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without for all shuttering.(Mix 1:4:8)	%Cft	4252.12	14408.75	612676.87
4	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge (Marine Plywood will used for for all shuttering).(Foundation)	P.Cft	20816.77	394.20	8205971.80
5	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge.(Marine Plywood will used for for all shuttering) (Ground Floor)	P.Cft	12188.04	394.20	4804526.24
6	C-4/6 a-i +6 (d)	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge.(Marine Plywood will used for for all shuttering) (First Floor)	P.Cft	12385.87	406.30	5032380.55
7	C-4/6 a-i +6 (d)	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Marine Plywood will used for for all shuttering) (Second Floor)	P.Cft	14088.19	418.40	5894499.30
8	C-4/6 a-i +6 (d)	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4 ) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Marine Plywood will used for for all shuttering) (Third Floor)	P.Cft	3136.58	430.50	1350296.37
9	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) UPL	P.Cft	2031.08	433.50	880471.01
10	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) (Marine Plywood will used for for all shuttering) G.F	P.Cft	3046.61	433.50	1320706.52

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
11	C-4/6 a-ii +6 (d)	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) (Marine Plywood will used for for all shuttering) F.F	P.Cft	3193.12	445.60	1422854.59
12	C-4/6 a-ii +6 (d)	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) (Marine Plywood will used for for all shuttering) S.F	P.Cft	3193.12	457.70	1461491.35
13	C-4/6 a-ii +6 (d)	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) (Marine Plywood will used for for all shuttering) T.F	P.Cft	560.52	469.80	263330.90
14	C-4/8(a)	Fabrication of mild steel reinforcement for cement concrete including cutting,bending, laying in position, making joints and fastenings including cost of binding wire (also includes removal of rust from bars.)	P.M.Ton	294.70	186000.00	54813634.07
15	C-5/4-l(e)	Pacca brick work in foundation and plinth in cement sand mortar 1:6.	%Cft	10116.16	17116.36	1731518.41
16	C-1/21	Filling, watering and ramming earth in floors with surplus earth from foundation lead upto one chain and lift jupto 5 feet.	%0Cft	30407.72	1512.50	45991.68
17	C-1/22	Filling, watering and ramming earth under floor with new earth (Excavated from outside) lead upto one chain and lift upto 5 feet.	%0Cft	141759.67	3630.00	514587.61
18	C-5/5-l(d)	Pacca brick work in Ground Floor cement, sand mortar Ratio 1:5	%Cft	8797.00	18252.08	1605635.26
19	C-5/5-l(c)	Pacca brick work in Ground Floor cement, sand mortar Ratio 1:4	%Cft	1041.47	18837.41	196186.76
20	C-5/5-l(d) + 6	Pacca brick work in First Floor cement, sand mortar Ratio 1:5	%Cft	7235.77	18690.71	1352416.49
21	C-5/5-l-c + 6	Pacca brick work in First Floor cement, sand mortar Ratio 1:4	%Cft	477.41	19276.04	92025.92
22	C-5/5-l(d) + 6	Pacca brick work in Second Floor cement, sand mortar Ratio 1:5	%Cft	7018.26	19265.46	1352100.03
23	C-5/5-l-c + 6	Pacca brick work in Second Floor cement, sand mortar Ratio 1:4	%Cft	491.45	19850.79	97557.19
24	C-5/5-l(d) + 6	Pacca brick work in Third Floor cement, sand mortar Ratio 1:5	%Cft	918.95	19840.21	182321.98
25	C-9/12(b)	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) Ground Floor	%Sft	17156.78	2440.05	418633.97
26	C-9/12(b)+29	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) First Floor	%Sft	14026.50	2581.02	362026.82
27	C-9/12(b)+29	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) Second Floor	%Sft	14026.50	2721.99	381799.98
28	C-9/12(b)+29	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) Third Floor	%Sft	1571.69	2862.96	44996.84
29	C-9/12(c)	Cement plaster 1:5 upto 12' height:- b) ¾" (20 mm) thick. (Internal) Ground Floor	%Sft	7636.73	3003.50	229369.29
30	C-9/12(c)+29	Cement plaster 1:5 upto 12' height:- b) ¾" (20 mm) thick. (Internal) First Floor	%Sft	4994.87	3144.47	157062.08

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
31	C-9/12(c)+29	Cement plaster 1:5 upto 12' height:- b) ¾" (20 mm) thick. (Internal) Second Floor	%Sft	4994.87	3285.44	164103.34
32	C-9/11(c)	Cement plaster 1:4 Ground Floor upto 12' height:- c) ¾" (20 mm) thick. (External)	%Sft	6648.08	3386.26	225121.39
33	C-9/11(c)+29	Cement plaster 1:4 First Floor upto 12' height:- c) ¾" (20 mm) thick. (External)	%Sft	5689.43	3527.23	200679.24
34	C-9/11(c)+29	Cement plaster 1:4 Second Floor upto 12' height:- c) ¾" (20 mm) thick. (External)	%Sft	4991.77	3668.20	183108.02
35	C-9/11(c)+29	Cement plaster 1:4 Third Floor upto 12' height:- c) ¾" (20 mm) thick. (External)	%Sft	9500.06	3809.17	361873.61
36	C-9/10(a)	Cement plaster 3/8" thick under soffit or R.C.C. roof slab only upto 12' height ratio 1:3. Ground Floor	%Sft	5060.47	2439.62	123456.21
37	C-9/10(a)+29	Cement plaster 3/8" thick under soffit or R.C.C. roof slab only upto 12' height ratio 1:3. First Floor	%Sft	5060.47	2580.59	130589.95
38	C-9/10(a)+29	Cement plaster 3/8" thick under soffit or R.C.C. roof slab only upto 12' height ratio 1:3. Second Floor	%Sft	5678.43	2721.56	154541.96
39	C-9/10(a)+29	Cement plaster 3/8" thick under soffit or R.C.C. roof slab only upto 12' height ratio 1:3. Third Floor	%Sft	264.11	2862.53	7560.19
40	C-9/24(c)	Distempering:- New surface:- three coats	%Sft	80471.42	1079.65	868809.66
41	C-5/29	Supplying and filling sand under floor and plugging in walls.	%Cft	15318.60	1141.25	174823.57
42	C-4/2	Dry rammed brick or stone ballast 1 1/2" to 2" gauge.	%Cft	15318.60	3327.50	509726.55
43	C-4/5(f)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without for all shuttering.(Mix 1:2:4)	%Cft	8874.36	20149.25	1788116.92
44	C-8/16-c	Providing and laying 2" thick topping cement concrete (1:2:4 ) including Surface finishing and dividing into panels:	%Sft	3092.40	3847.50	118979.91
45	C-8/75	Providing & fixing glass strips 4 mm for flooring upto 1" depth l/c fixing in flooring with cement in specified pattern & design.	P.Sft	3092.40	11.16	34511.13
46	C-7/18	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	18.00	358.68	6456.24
47	C-8/22	1 1/2" thick mosaic flooring consisting of 1/2" mosaic topping of one part of grey cement to two part of marble chips laid over 1"thick flooring of 1:2:4 cement concrete including rubbing and polishing complete.	%Sft	165.11	14978.67	24731.66
48	C-8/39(b)	Mosaic dado or skirting one part of grey cement and 2 parts of marble chips laid over 1/2" thick cement plaster 1:3 complete with finishing.	%Sft	315.03	11149.68	35124.67
49	C-10/59	First class Sheesham wood wrought framed and fixed in place including chowkhats hold fasts, tower bolts, chocks, cleats, handles card with hooks and cost of nails and screws, etc. panelled or panelled and glazed or fully glazed 1-1/2" thick.	P.Sft	521.22	662.24	345172.73
50	C-10/03 (a)	Teak wood wrought framed and fixed in place including chowkats hold fasts, tower bolts, chocks, cleats, handles cord with hooks and cost of nails and screws, etc.	P.Sft	204.00	2557.08	521644.32
51	C-10/19-(A)-ii	Providing and fixing sliding bolt to doors.Iron sliding bolt 12" long.(a) Panelled or panelled and glazed or fully glazed 2" thick.	Each	108.00	222.23	24000.84
52	C-10/21	Providing and fixing, approved quality mortice lock.	Each	24.00	1786.13	42867.12

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
53	C-17/24	Making & fixing steel grated door with 1/16" thick sheeting including angle iron frame 2" x 2" 3/8" and 3/4" square bars 4" centre to centre with locking arrangement.	P.Sft	521.22	726.72	378781.00
54	C-11/5-(c)	Preparing surface and painting of doors and windows any type, (including edges). Three Coats.	%Sft	2314.44	2116.41	48983.09
55	C-18/84(a)	Supplying & fixing in position Aluminium channels framing for slidding windows & ventilators of Alcop made with 5 mm thick tinted glass glazing (Belgium) & Aluminium fly screen l/c handles stoppers & locking arrangement etc. complete. (a) Deluxe model (White).	P.Sft	4766.45	1592.69	7591470.03
56	C-17/26	Supplying & fixing in position iron/steel grill of 3/4" x 1/4" size flat iron of approved design including painting 3 coats etc. complete (weight not to be less than 3.7 Lbs./Sq . Foot of finished grill).	P.Sft	4244.22	180.50	766081.71
57	C-18/69(a)	Damp Proof course with cement sand Ratio (1: 2) mixed with dampo b) 1-1/2" thick	%Sft	260.99	2877.32	7509.57
58	C-7/13	Two coats of bitumen laid hot using 34 Lbs for % Sft. Ober roof and blinded with sand at one Cft. Per % Sft.	%Sft	1564.19	1887.40	29522.44
59	C-7/38	Providing and laying single per layer of polythene sheet 0.13 mm thick for water proffing as per specification and instructions of Engineer incharge.	P.Sft	20106.77	10.70	215142.39
60	C-10/55	Supplying and fixing commercial ply wood 3- ply in panels including supplying and making deodar wood 2nd class frame work for partition walls.	%Sft	936.29	39232.62	367332.95
61	C-Public Health Part B/J/Page-35	Providing C.I Manhole Cover & Frame i/c cost of Material etc.	P.Kg	20.00	140.00	2800.00
62	C-Public Health Part B/J/Page-56	Providing "expansion joint" in concrete work of 9" wide corugated PVC water stop (with bulb) i.c soldering cost of material and labour etc complete.	P.Rft	58.65	86.00	5043.90
63	C-4/7(ii)	Extra cost due to use of Hi Bond Pre-packaged Polymer Modified mortar (DHPMM) as an admixture in conrrete mix for increasing durability, to be used in concreting, flooring, block/ brick/ stone masonry or plastering as % by weight of cement.	P.Kg	171.14	459.80	78688.66
64	C-8/74	Providing & fixing cement paving blocks flooring having size of 197 x 97 x 80 (mm) of city / quddra / cobble shape with pigmented having strength b/w 5000 psi to 8500 psi l/c filling the joints with hill sand and laying in specified manner / patter and design etc: complete.	P.Sft	12096.18	248.17	3001908.99
<b>Total of CSR ITEMS (A)</b>						<b>114157379.56</b>
<b>Amount Premium Quoted by Contractor Above/ Below +/- .....% (B)</b>						
<b>Total of CSR Items with Premium (A + B)</b>						

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
1	NSI	Providing and laying structural pad for foundation made of selected granular fill material (Mixture of 50% gravel and 50% sand of approved quality and grade) including placing, mixing, spreading and compaction of sub-base material to required depth, grade to achieve 95% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as approved by the Engineer incharge (Provisional).	%Cft	38746.15		
2	NSI	Providing and Fixing Fair Face Brick Cladding 9"x4.5"x3" laying with 1:3 cement/red passso mortar recessed i/c back side plaster and filling gap with 1:5 cement sand and mortar i/c cost of 1/2" hoops/loops embended in walls and 1/2" embeded cutting brick as per drawing for making circular type arches, brick on end, or on edge i/c carriage complete in all respect as per approved by the Engineer incharge.	P.Sft	18444.47		
3	NSI	Providing and fixing of False ceiling consisting of Gypsum Board of size 600 mm x 600 mm x 7.5 mm over aluminium Tee's 1"x1" size at 2'-0"x2'-0" center to center longitudinally and transversally & aluminium angle of size 1"x1" at corners/ ends, including all accessories such as steel hanging wire, hooks, screws, nails, rowel plugs, Cross Joints etc. complete in all respect, and as approved by the Engineer Incharge.	P.Sft	49414.27		
4	NSI	Providing and applying wall putty (Kansai or equivalent) two coats on plastered surface to prepare the surface even and smooth complete in all respect as approved and directed by the Engineer Incharge.	P.Sft	80471.42		
5	NSI	Providing and laying porcelain tiles flooring 24"x24"x3/8" light color laid in white cement and matching pigment over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment complete in all respect. (Master, Shabbir Tiles or Equivalent)	P.Sft	32613.38		
6	NSI	Providing and laying porcelain tiles flooring 24"x48"x3/8" light color laid in white cement and matching pigment over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment complete in all respect. (Master, Shabbir Tiles or Equivalent)	P.Sft	13058.78		
7	NSI	Providing and laying porcelain wooden texture tiles flooring 6"x36"x3/8" laid in white cement and matching pigment over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment complete in all respect. (Master, Shabbir Tiles or Equivalent)	P.Sft	1516.74		
8	NSI	Providing and laying porcelain wooden texture tiles skirting / dado , tile size 6"x4"x3/8" laid in white cement and matching pigment over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment complete in all respect. (Master, Shabbir Tiles or Equivalent)	P.Sft	94.63		
9	NSI	Providing and laying porcelain tiles skirting / dado with grooves, tile size 3'x1'x3/8" laid in white cement and matching pigment over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment complete in all respect. (Master, Shabbir Tiles or Equivalent)	P.Sft	19463.00		

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
10	NSI	Providing and laying Ceramic Matt Tiles Texture Light color for flooring size 12"x26"x3/8" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respect as approved & directed by the Engineer/ Incharge. (Premium Quality Tile, Equivalent)	P.Sft	2663.16		
11	NSI	Providing and laying Ceramic Matt Tiles Texture Light color for skirting / dado size 12"x26"x3/8" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respect as approved & directed by the Engineer/ Incharge. (Premium Quality Tile, Equivalent)	P.Sft	9630.59		
12	NSI	Providing and fixing 3/4" thick pre-polished Black Granite full width area above 2 Sft laid in white cement matching pigment 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement & matching pigment, making gola on exposed edges complete in all respect as approved by the Engineer/ Incharge.(Stairs,Podium and Vanity)	P.Sft	3211.98		
13	NSI	Providing and fixing 3/4" thick Boticina Marble full width area above 2 Sft laid in white cement matching pigment 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement & matching pigment,including Polished and making gola on exposed edges complete in all respect as approved by the Engineer/ Incharge.(Stairs)	P.Sft	2323.55		
14	NSI	Providing and fixing UPVC Doors 38mm thickness i/c delux matching color UPVC frame matt or glossy finish having color (white-Gray-Marble Gray-Oak Wood- Dard Oak Wood, Coffee Wood Honey Pine Wood-Mahagony-Marry Gold-Chocolate Brown-Honey Dew) i/c all accessories i/c mortice locks complete in all respect as approval by the Engineer Incharge.	P.Sft	1256.64		
15	NSI	Providing and fixing Steel Sheet (Jisti) hollow press frame of doors, etc. (Chowkhat only) of 16 SWG welded with M.S. flat 6"x1½"x1/8" (150x40x3mm) M.S. hold fast 9"x1"x1/8" (225x25x3mm) welded/ screwed 4" (100mm) long iron hinges including fitting chowkhat with cement sand mortar 1:8 and embedding hold fast in cement concrete 1:2:, Single Rebate, 10" wide, complete in all respect as per direction of Engineer in-charge.	P.Sft	210.12		
16	NSI	Providing and fixing 12mm thick tempered glass partition with frameless door ghani or equivalent with aluminium U/channel of approved texture/ shade, thickness 2 mm with silicone i/c the cost of holding the partitions, door closer machine, S.S handle 18" & all hardware complete in all respect as per specifications/standard as per instruction of Engineer Incharge.	P.Sft	6194.25		
17	NSI	Providing and fixing SS railing 2'-6" height, 2" dia SS pole 16 SWG at 4 ft c/c, 2" dia SS 16 SWG pipe on top, 3 no. 3/4" dia SS 16 SWG horizontal pipe from pole to pole, buffing and polishing complete in all respect including the cost of base plate, base plate cap, rawl bolt etc. as per approval of Engineer/ Incharge.	P.Rft	664.79		
18	NSI	Providing and fixing Ashwood Frame Railing with 12mm Glass, Polishing complete in all respect including the all Hardware Fixing etc. as per approval of Engineer/ Incharge.	P.Rft	568.30		

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
19	NSI	Providing and fixing steel fireproof panic exit door measuring (72 Inches) Width x (96 Inches) Height x (5 Inches) Depth. Fitted in a jamb measuring (72 inches) Width x (96 Inches) Height x (5 Inches) Depth, made from Galvanized sheet 1.2mm (18SWG) thick and frames are made from Galvanized imported sheet 1.2mm (18SWG) thick, stiffeners are provided on the jamb frame for additional strength. Fireproof insulation will be of mineral Fireboard of 44mm. Fireproof material mineral fireboard will have a minimum 45 minutes rating. door will be fitted with Imported UNION IMPORTED MADE IN UK PANIC BAR DOOR LOCK VERTICAL AND HORIZONTAL LATH SYSTEM MODEL 802 ,12 gauge and can be smoothly operated with just a slight push to exit emergency situations. A set of three (3) heavy hinges will be installed on the Door and Jamb for smooth movement, which later on will be painted in RED color with the door. Hold fasts or anchor fasteners shall be provided for fixing the frame with the wall if needed. Auto door closer will be attached to the Jamb frame and door. Door movement can be set according to the demand LH or RH. (Babar Pakistan or Equivalent)	Each	4.00		
20	NSI	Providing & Fixing Kitchen Cabinet with MDF Sheet 3/4" (16mm) thick i/c Drawers, Handles, Hinges, Screws etc complete in all respect as approved by the engineer incharge.	P.Sft	42.78		
21	NSI	Providing and fixing thermopore sheet 1-1/2 inch thickness of 35-D in Roof and between the fair face bricks walls and outer building walls for heat reduce purpose complete in all respect as approved & directed by the Engineer/ Incharge. (Premium Quality Tile, Equivalent)	P.Sft	18444.47		
22	NSI	Providing and laying sub-base course of crush stone aggregate of approved quality and grade, including placing, mixing, spreading and compaction of sub-base material to required depth, camber, grade to achieve 100% maximum modified AASHO dry density, including carriage of all material to site of work except gravel and aggregate.	P.Sft	12096.18		
23	NSI	Providing and laying road kerb of precast cement concrete (300 mm x 350 mm x 100 mm) using crushed aggregate, formwork and its removal, compacting and curing laid in cement mortar 1:4 including cost of excavation, backfilling of excavated stuff & its disposal within 30m. Road kerb of precast cement concrete 1:2:4	P.Rft	394.00		
24	NSI	Providing and applying bitumen membrane sheet of 4mm thickness, cleaning and scraping the top surface of Roof, apply first coat of Bitumen Primer coat,fill the joints Cracks and damaged parts of the surface apply Bitumen membrane with torch Gun and Overlapping and Joints filling of Membrane complete in all respect as per approval of Engineer/ Incharge.	P.Sft	18542.58		
25	NSI	Providing and Applying water proofing by Chemseal – 105 N Fiber-reinforced, Polymer-modified Cementitious Elastomeric Waterproofing Compound complete in all respect as per approval of engineer incharge. "Imporient Chemicals" or equivalent.	P.Sft	198.99		
<b>Total of Non CSR ITEMS</b>						
<b>GRAND TOTAL OF CIVIL WORKS</b>						

**CONSTRUCTION OF CENTRAL/DIGITAL LIBRARY AT SMBBMU, LARKANA SINDH.**

**BILL OF QUANTITIES**

**PUBLIC HEALTH WORKS**

**Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh with Additional Cost as per Notification No. IV/2(IV)-SO(RATES), Dated 1st December 2021**

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
		<b><u>SANITARY FIXTURES AND FITTINGS</u></b>				
1	V-B (Ch 1/5)	Providing and fixing European type white glazed earthen ware wash down W.C. pan complete with and l/c the cost of white/black plastic seat (Best quality) and lid with C.P.brass hinges and buffers, 3 gallons white glazed earthen ware low level fushing cistern with siphon fitting 1-1/2" dia white porcelain enamelled flush bend 3/4" dia and making requisite number of holes in walls, plinth and floor for pipe connections and making good in cement concrete 1:2:4.	Each	42.00	11,477.40	482,050.80
2	V-B (Ch 1/2-A ii)	Providing and Fixing squatting type white glazed earthen ware w.c pan with front fresh inlet & complete with including the cost of flushing cistern with internal fitting and flush pipe with bend and making requisite number of holes in walls plinth & floor for pipe connection and making good in cement concrete 1:2:4. (A) W.C pan 23" & low level earthen ware flush tank 3 gallons. (ii) with 4" dia white glazed earthen ware trap and plastic thumble.	Each	24.00	5,772.80	138,547.20
3	V-B (Ch 1/19-c)	Providing and fixing steel sinks stainless local make complete with cast iron or wrought iron brackets 6 inches built in wall, 1-1/2" c.p bubber plug chrome plated brass chain, 1-1/2" c.p brass waste, with 1-1/2" P.V.C. waste pipe & making requisite number of holes in wall, plinth & floor for pipe connection & making good in cement concrete 1:2:4. (c) Steel sink stainless sized 33" x 18" local make (Standard pattern)	Each	1.00	5,712.30	5,712.30
4	V-B (Ch 6/19 (a)	Providing and fixing CP Muslim shower with double bib cock & ring pipe etc complete.	Each	66.00	3,432.00	226,512.00
5	V-B (Ch 2/5)	Providing and fixing soap tray earthen ware with c.p screws etc.complete.	Each	26.00	497.20	12,927.20
6	V-B (Ch 2/1 (iii-b)	Providing and fixing chrome plated brass towel rail complete with brackets fixing with 1" long c.p brass screws. (iii) Towel Rail 24" long (b) 3/4" dia round or square (Superior Quality)	Each	16.00	1,082.92	17,326.72
7	V-B (Ch 2/2 (b)	Providing and fixing c,p brass toilet paper holder of standard size with chrome plated brass brackets complete (Similar to twyford's design No 1108) (b) Superior Quality	Each	66.00	1,071.40	70,712.40
8	V-B (Ch 1/22	Providing and fixing (1/2") dia, lead connection complete with a (1/2") dia brass stop cock, two brass nuts & lining jointed to lead pipe with plumber wiped solder joints (1/2" lead pipe to be of not less than 4lbs per lineal yard.	Each	118.00	689.70	81,384.60
9	V-B (Ch 10/1 (i)	Providing and fixing 6" x 4" C.C gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & 1/2" thick cement plaster (1:3) to the karb. C.I grating 6" x 6' C.I cover and frame 12" x 12" (inside) etc complete. Earthan ware glazed Gully trap 6" x 6" x 4" with C.I cover & Frame.	Each	8.00	1,220.67	9,765.36

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
10	V-B (Ch 10/2 (e))	Providing R.C.C. pipe with collar class 'B' and digging the trenches to required depth & fixing in position including cutting, fitting and jointing with maxphalt composition & cement mortar and testing with water pressure a head of 4 feet above the top of the highest pipe & refilling with excavating shaft. i) 310 mm (12") i/d	P.Rft	460.00	401.97	184,906.20
11	IV-A (1)	Excavation for pipeline in trenches, and pits in soft soils i/c trimming and dressing sides to true alignment and shape levelling of beds of trenches to correct level and grade, cutting joint and holes and disposal of surplus earth within a one chain as directed by engineer incharge. Providing fence guards, lights, flags and temporary crossings for non-	1000 Cft	4,140.00	3,600.00	14,904.00
12	1/13 (d)	Earth work compaction (Soft, ordinary or hard soil). (d) Ramming earth work (All types of soil).	1000 Cft	4,140.00	453.75	1,878.53
13	1/9 (a)	Rehandling of earth work. (a) Lead upto a single throw of Kassi, Phawrah or a = Shovel.	1000 Cft	4,140.00	756.25	3,130.88
14	V-B (Ch 6/4 (iv))	Providing and fixing full way gun metal peet/gate valve with wheels, threaded or flanged ends with rubber washing. (iv) 1-1/4" (Light pattern)	Each	12.00	337.92	4,055.04
15	V-B (Ch 6/4 (v))	Providing and fixing full way gun metal peet/gate valve with wheels, threaded or flanged ends with rubber washing. (v) 1-1/2" (Light pattern)	Each	12.00	695.42	8,345.04
<b>MANHOLE</b>						
16	VI-B (ii) P (1)	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" (1067 mm) depth with walls of BB in cement sand mortar 1:3 cement plastered 1:3, 1/2" thick. Inside of walls and 1" (25 mm) thick over benching and channel i/c fixing C.I manhole cover with frame of clear opening 1-1/2' x 1-1/2' (457 x 457mm) of 1.75 cwt. (88.9 Kg) embeded in plain C.C 1:2:4 and fixing 1"(25mm) dia MS steps 6" (150 mm) wide projecting 4" (102mm) from the face of wall at 12" (305mm) C/C duly painted etc. Complete as per Standard specification and drawing.	Job	10.00	14,748.00	147,480.00
<b>Total of CSR ITEMS (A)</b>						<b>1,409,638.26</b>
<b>Amount Premium Quoted by Contractor Above/ Below +/- .....% (B)</b>						
<b>Total of CSR Items with Premium (A + B)</b>						
1	NSI	Providing and fixing Basin BOWL White ,Master (HD-1), sonex or equivalent complete in all respects as approved by the Engineer incharge.	Each	24.00		
2	NSI	Providing and fixing, chromium plated mixing valve, for wash hand basin mixer ,master (3048 CP), sonex or equivalent ,complete with respect as per engineer incharge.	Each	24.00		
3	NSI	UPVC Multi Floor Trap (110x75mm) including strainer; making required number of connections; breaking concrete or masonry work & then making it good; etc. of approved make.	Each	28.00		
4	NSI	Providing, Fixing Dadex Class D or equivalent UPVC clean out with cover making requisite number of holes in walls, plinth or floor for pipe connection and making good the same as necessary to the structure complete including, rubber gasket and clamp.	Each	16.00		

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
5	NSI	Providing and fixing, floor trap of PVC, including concrete chamber all round, and C.I. grating:-. (Master,sonex or Equivalent)	Each	108.00		
6	NSI	Providing and fitting "P" trap:ii) 10 cm (4") glazed.	Each	42.00		
7	NSI	Providing and fixing looking glass 5 mm thick size as per requirement/ drawings and direction of engineer incharge complete in all respect. (Ghani Glass or Equivalent)	Sft	200.00		
8		<b>WATER SUPPLY PIPES AND FITTINGS</b>				
		P/F Polypropylene Random copolymer (PPRC) PN-20 pipe with fusion / threaded joints including the cost of all specials/ accessories i.e elbow, bend, sockets etc. (Popular /Beta or equivalent) complete in all respect.				
	i	1 1/2" (40 mm) dia.	Rft	330.00		
	ii	1" (25 mm) dia.	Rft	510.00		
	iii	2" (50 mm) dia.	Rft	290.00		
	iv	3/4" (20 mm) dia.	Rft	800.00		
9		<b>SOIL, WASTE, VENTILATING PIPES &amp; FITTINGS</b>				
		Providing , fixing and testing UPVC Nikasi type "B" with solution of same quality make including the cost of all specials/ accessories i.e elbow, bend, sockets etc. (Popular/Beta or equivalent) complete in all respect.				
	i	100 mm (4") dia.	Rft	540.00		
	ii	80 mm (3") dia.	Rft	510.00		
		<b>VALVES</b>				
10	NSI	Providing and fixing handle valves 16bars or equivalent complete in all respects as approved by the engineer incharge.				
	i	3/4 inch	Each	18.00		
	ii	1/2 inch	Each	12.00		
		<b>GAS GESYER</b>				
11	NSI	Providing and Fixing Sui Gas Geyser 50 gallon capacity comprising of internal tank of G.I sheet 14-SWG and External M.S sheet 22-SWG covering with proper foot rests dully enamel painted, 4" thick heigh density glass wool insulation with proper warranty with thermostat temperature gauge including fixing and making connection at site etc. complete in all respects as approved by the Engineer Incharge. (Ambassador/Firex/Exquire)	No	4.00		
12	NSI	Providing and Fixing Electric Geyser 15 gallon capacity comprising of internal tank of G.I sheet 14-SWG and External M.S sheet 22-SWG covering with proper foot rests dully enamel painted, 4" thick heigh density glass wool insulation with proper warranty with thermostat temperature gauge including fixing and making connection at site etc. complete in all respects as approved by the Engineer Incharge. (Ambassador/Firex/Exquire)	No	1.00		

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
13	NSI	Supply and fixing, Pressure Pump 0.5 Hp Golden company complete in all respects as approved by the Engineer Incharge.	Each	2.00		
14	NSI	Providing and fixing of centrifugal pump monoblock (super asia or equivalent make) coupled with 1.5 h.p motor, 50' head, size 1"x1-1/4" complete in all respect as approved by the engineer incharge.	Each	2.00		
15	NSI	Providing and fixing Gate valve 1 bars, RUV(itly) or equivalent complete in all respects as approved by the Engineer incharge.	Each	4.00		
16	NSI	Providing and fixing Gate valve 2 bars, RUV(itly) or equivalent complete in all respects as approved by the Engineer incharge.	Each	6.00		
17	NSI	Providing, fixing and testing PPRC ball valve 32mm , Dadex, Beta or Tetraplast make as approved by the Engineer Incharge complete in all respects to their entire satisfaction including all accessories and jointing material complete in all respects.	Each	2.00		
18	NSI	Providing, fixing and testing PPRC ball valve 40mm , Dadex, Beta or Tetraplast make as approved by the Engineer Incharge complete in all respects to their entire satisfaction including all accessories and jointing material complete in all respects.	Each	2.00		
		<b>FIRE FIGHTING</b>				
19	NSI	Providing, laying, fixing, cutting & welding of 6" dia M.S Seamless pipe A-106 Gr-B, SCH-40, including all specials required complete in all respect as approved & directed by the Engineer/ Incharge. (Huffaz Corporation or vallourec)	Rft	300.00		
20	NSI	Supply & installation of dry chemical, powder type Fire-Extingusher 6-Kg capacity stored pressure with nozel, wall hook complete in all respects as per instruction of Engineer Incharge. Fire Chief M-EXT017 or equivalent made.	Each	6.00		
21	NSI	Supply & installation of Hose Reel 1x100ft, with cabinet HR-102-G Glass Front, wall hook complete in all respects as per instruction of Engineer Incharge. Fire Chief M-FHR007 or equivalent made.	Each	3.00		
22	NSI	Supply, Installation, Testing and Commissioning of 500 GPM Fire Pump @ 8 bar pressure: 3 Electric, Diesel & Jockey Pump set complete in all respects as per instruction of Engineer Incharge. (FIKCO. or equivalent made)	Each	1.00		
		<b>1 no. Bore</b>				
23	IV-B-VI (O)	Boring for tubewell in all types of soil except shingle and rock, from ground level to 100 ft. (30 m) depth, including sinking and withdrawing of casing pipe, complete:-3" (75 mm) i/d	Rft	150.00		
24	IV-B-VI (9a)	Providing and installing P.V.C. strainer B.S.S. Class `D' ,in tubewell bore hole, including sockets and solvent, etc. complete:3" i/d (50 mm)	Rft	80.00		
25	IV-B-VI (8b)	Providing and installing P.V.C. Bail/End plug, in tubewell bore hole:B.S.S. Class `D' ii) 2" i/d (50 mm)	Each	4.00		

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
26	IV-B-VI (12)	Providing and installing P.V.C. blind pipe, B.S.S. Class 'D', in tubewell bore hole, including sockets and solvents and jointing with strainer, etc. complete.				
	a	1¼" i/d (30 mm) 1 x 70	Rft	250.00		
	b	1½" i/d (40 mm) 1 x 40	Rft	250.00		
	c	2" i/d (50 mm) 1 x 50	Rft	250.00		
		<b>Pipe for supply</b>				
27	NSI	P/F Polypropylene Random copolymer (PPRC) pipe with fusion / threaded joints made (Dadex /Beeta/BBJ or equivalent) including the cost of all specials complete in all respect. i/d 50mm	Rft	450.00		
28	NSI	Providing and fixing of 5.5 HP Centrifugal motor pump having 50mm suction and 100m head (non-automatic) from approved manufacturer complete in all respect as per approval of Engineer Incharge.	Each	2.00		
<b>Total of Non CSR ITEMS</b>						
<b>GRAND TOTAL OF PUBLIC HEALTH WORKS</b>						

**CONSTRUCTION OF CENTRAL/DIGITAL LIBRARY AT SMBBMU, LARKANA SINDH.**

**BILL OF QUANTITIES**

**ELECTRICAL WORKS**

**Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh with Additional Cost as per Notification No. IV/2(IV)-SO(RATES), Dated 1st December 2021**

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
<b>1</b>		<b><u>DISTRIBUTION BOARDS</u></b>				
		Supply at site, fabrication, installation, testing and commissioning of Distribution Board (DB) , made of sheet steel 16 SWG, degreased and derusted, with 2 coats of antirust paint, 2 coats of powder coated paint of approved colour, protection classification IP-44, totally enclosed indoor floor mounting cubicle type in free standing design, with hinged door, handle including cost of all auxiliaries, internal wiring, designation lables on MCCBS, grounding bar suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral bus bars of 99.9% electrolytic copper, including cost of cable terminal blocks wiring from breakers, brass cable glands, all accessories complete in all respects metion in BOQ or not required for performing completely. All incoming and outgoing breakers shall be accessible only by opening the front door having further M.S. sheet cover gaskets shall also be provided where necessary. Panel should be compeltely made in certified factory. ie PEL, Green T & D, Mazcorp engineering or equivalent approved by engineer incharge.				
		All MCCBs shall be suitable to operate without any derating at 40°C ambient temperature and shall be of one make only. The sides of MDB shall also have louvers at bottom and top on sides of panel for hot air exhaust, wire mesh etc. The back of the panel shall be lockable door instead of bolted and shall conform to single line diagram. item should be of ABB, Schneider or equivalent approved by engineer incharge				
<b>i</b>		<b><u>Main Distribution Board</u></b>				
		<b><u>INCOMMING</u></b>				
	ELECT SH-X(208)	Providing and fixing circuit breaker 125,150,200 & 225 amps TP(XS-225NS) on prepared board as required.	Per No.	1	25541	25,541
	ELECT SH-XV(273)	Providing and fixing of current transformer of ration 300/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	1686	5,058
	ELECT SH-XV(278)	Providing and fixing of current transformer of ration 1200/5 amps (square or rectangular) RLC-65 as required or as per instructed as EI.	Per No.	3	3556	10,668
	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	6	999	5,994
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	6	916	5,496
		<b><u>OUTGOING</u></b>				
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	3	916	2,748
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	19	9226	175,294
	ELECT SH-X(208)	Providing and fixing circuit breaker 125, 150, 200 & 225 amps TP(XS-225NS) on prepared board as required.	Per No.	6	25541	153,246
	ELECT SH-X(209)	Providing and fixing circuit breaker 250 amps TP setting 160-250 amps (XS-250NJ) on prepared board as required.	Per No.	1	27411	27,411
<b>ii</b>		<b><u>DISTRIBUTION BOARD DB-AC-GF.FF.2F</u></b>				
		<b><u>INCOMMING</u></b>				
	ELECT SH-X(208)	Providing and fixing circuit breaker 125, 150, 200 & 225 amps TP(XS-225NS) on prepared board as required.	Per No.	3	25541	76,623
	ELECT SH-XV(273)	Providing and fixing of current transformer of ration 300/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	9	1686	15,174

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	9	999	8,991
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	9	916	8,244
		<b>OUTGOING</b>				
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50 & 60 amps TP(XES-100CB(CS)) on prepared board as required.	Per No.	21	5521	115,941
iii		<b>DISTRIBUTION BOARD DB-AC-FF1.2F1</b>				
		<b>INCOMING</b>				
	ELECT SH-X(208)	Providing and fixing circuit breaker 125, 150, 200 & 225 amps TP(XS-225NS) on prepared board as required.	Per No.	2	25541	51,082
	ELECT SH-XV(273)	Providing and fixing of current transformer of ration 300/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	6	1686	10,116
	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	6	999	5,994
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	6	916	5,496
		<b>OUTGOING</b>				
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50 & 60 amps TP(XES-100CB(CS)) on prepared board as required.	Per No.	10	5521	55,210
iv		<b>DISTRIBUTION BOARD DB-GF</b>				
		<b>INCOMING</b>				
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	9226	9,226
	ELECT SH-XV(270)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	1191	3,573
	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	999	2,997
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	3	916	2,748
		<b>OUTGOING</b>				
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	34	916	31,144
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50 & 60 amps TP(XES-100CB(CS)) on prepared board as required.	Per No.	1	5521	5,521
v		<b>DISTRIBUTION BOARD DB-GF-01</b>				
		<b>INCOMING</b>				
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	9226	9,226
	ELECT SH-XV(270)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	1191	3,573
	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	999	2,997
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	3	916	2,748
		<b>OUTGOING</b>				
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	35	916	32,060
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50 & 60 amps TP(XES-100CB(CS)) on prepared board as required.	Per No.	1	5521	5,521
vi		<b>DISTRIBUTION BOARD DB-LAB IT</b>				
		<b>INCOMING</b>				
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	9226	9,226
	ELECT SH-XV(270)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	1191	3,573
	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	999	2,997
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	3	916	2,748
		<b>OUTGOING</b>				
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	35	916	32,060

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50 & 60 amps TP(XES-100CB(CS)) on prepared board as required.	Per No.	1	5521	5,521
vii		<b>DISTRIBUTION BOARD DB-A, A1, B, B1</b>				
		<b>INCOMING</b>				
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	3	9226	27,678
	ELECT SH-XV(270)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	9	1191	10,719
	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	9	999	8,991
		<b>OUTGOING</b>				
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	57	916	52,212
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50 & 60 amps TP(XES-100CB(CS)) on prepared board as required.	Per No.	3	5521	16,563
viii		<b>DISTRIBUTION BOARD DB-C, C1</b>				
		<b>INCOMING</b>				
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	2	9226	18,452
	ELECT SH-XV(270)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	6	1191	7,146
	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	6	999	5,994
		<b>OUTGOING</b>				
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	34	916	31,144
	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50 & 60 amps TP(XES-100CB(CS)) on prepared board as required.	Per No.	2	5521	11,042
2		<b>WIRING IN CONCEALED CONDUITS</b>				
i)		<b>Distribution board to Switch</b>				
		Wiring of light circuit from Distribution Board to switch,with Three nos. single core 2.5 Sqmm PVC insulated 450/750 volts grade stranded copper conductor cables in concealed PVC conduits (conduits partly shared) including PVC conduit, and conduit accessories etc. Cable should be of Newage, Fast cable, copper gate or equivalent and conduit should be of Solo,popular,easyfit or equivalent as approved by engineer incharge				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	1610	294.00	473,340
ii)		<b>Switch to light point</b>				
		Wiring from switch to light or fan point with 3 nos. single core 1.5 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories,etc.(conduit partly shared).				
a	ELECT SH-II(124)	Wiring of Light and fan point with 3.29 Pvc insulated wire in 20mm (3/4") dia PVC conduit recessed in the wall or column as required. Point to point wiring	Per/Point	540	1,130.00	610,200
b	ELECT SH-I(22)	Providing and laying (main or Sub Main Pvc insulated with 3-3.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	5730	220.00	1,260,600
iii)		<b>Switch to Switch</b>				
		Wiring from switch to switch with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories,etc.(conduit partly shared).				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	1800	294.00	529,200
iv)		<b>Distribution board to General Purpose ( 5A/13A) socket</b>				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Wiring of circuit from Distribution Board to 5A/13A ,230Volts with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts graded , 2&3 pin switched socket, stranded copper conductor cables in concealed PVC conduit, including conduit accessories, etc(conduit partly shared)				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	1350	294.00	396,900
v)		<b>Socket to Socket</b>				
		Wiring from 5 Amps, 2&3 pin socket to socket with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts grade solid or stanerd copper conductor cables in concealed PVC conduit including PVC conduit,Conduit accessories, etc complete. (conduit partly shared)				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	1912	294.00	562,128
vi)		<b>Distribution board to 20Amps socket</b>				
		Wiring of circuit from distribution board to 20A, 230Volts, DP switch with 3 or 5 nos. single core 6 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories, etc (conduit partly shared for A/Cs)				
a	ELECT SH-I(26)	Providing and laying (main or Sub Main Pvc insulated with 3-7.44 copper conductor in 1" dia PVC conduit recessed in the wall or column as required.	Rmtr	1275	468.00	596,700
b	ELECT SH-I(40)	Providing and laying (main or Sub Main Pvc insulated with 4-7.44 copper conductor in 1-1/2" dia PVC conduit recessed in the wall or column as required.	Rmtr	1350	613.00	827,550
vii)		<b>Distribution board to PUMP/LIFT connection</b>				
	ELECT SH-I(40)	Providing and laying (main or Sub Main Pvc insulated with 4-7.44 copper conductor in 1-1/2" dia PVC conduit recessed in the wall or column as required.	Rmtr	250	613.00	153,250
<b>3</b>		<b>LT CABLES</b>				
		Supply at site, installation, testing and commissioning of PVC insulated armoured copper conductor cable 600 / 1000 Volt grade (or otherwise mentioned in cable description ) in prelaid conduits / trenches to be installed as per routes shown on drawings including cost of all necessary materials, connections, identification tags, cables lugs properly crimped at both ends for the following sizes complete in all respects. Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the Engineer before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed. Cable should be of Newage, Fast cable, copper gate or equivalent and conduit should be of Solo,popular,easyfit or equivalent as approved by engineer incharge				
i	ELECT SH-I(103)	Providing and laying (main or Sub Main) Pvc insulated, Pvc sheated with 4 core copper conductor 600/1000 volts size 25mm2	Rmtr	300	1,909.00	572,700
ii	ELECT SH-I(104)	Providing and laying (main or Sub Main) Pvc insulated, Pvc sheated with 4 core copper conductor 600/1000 volts size 35mm2	Rmtr	120	2,529.00	303,480
iii	ELECT SH-I(106)	Providing and laying (main or Sub Main) Pvc insulated, Pvc sheated with 4 core copper conductor 600/1000 volts size 70mm2	Rmtr	80	4,722.00	377,760
iv	ELECT SH-I(107)	Providing and laying (main or Sub Main) Pvc insulated, Pvc sheated with 4 core copper conductor 600/1000 volts size 95mm2	Rmtr	150	6,529.00	979,350
v	ELECT SH-I(108)	Providing and laying (main or Sub Main) Pvc insulated, Pvc sheated with 4 core copper conductor 600/1000 volts size 120mm2	Rmtr	80	8,175.00	654,000

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
vi	ELECT SH-I(122)	Providing and laying (main or Sub Main) Pvc insulated, Pvc sheated with 4 core armoured copper conductor 600/1000 volts size 185mm <sup>2</sup>	Rmtr	790	18,513.00	14,625,270
<b>4</b>		<b>MISCELLANEOUS FITTINGS</b>				
		Supply, installation, testing & commissioning of Ceiling/ Exhaust fan. The ceiling/exhaust fan shall comprise circular fan metallic/ plastic body, metallic fan blades, down rod (if necessary) of suitable dia & length, AC capacitor, internal wiring, terminals all installation & operational accessories as per tender specifications, as per site requirements and as directed by the Engineer. make Bilal Switchgear Engineering, GFC, Pak Fan or approved equivalent.				
i	ELECT SH-XI(234)	Providing and Fixing of brass ceiling fan 48" (good quality)	No.	13	3,020	39,260
ii	ELECT SH-XI(235)	Providing and Fixing of brass ceiling fan 56" (good quality)	No.	134	3,185	426,790
iii	ELECT SH-XI(236)	Providing and Fixing of brass bracket fan 18" (good quality)	No.	7	2,791	19,537
<b>Total of CSR ITEMS (A)</b>						<b>24,529,742</b>
<b>Amount Premium Quoted by Contractor Above/ Below +/- .....% (B)</b>						
<b>Total of CSR Items with Premium (A + B)</b>						

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
1		<b>DISTRIBUTION BOARDS</b>				
		Supply at site, fabrication, installation, testing and commissioning of Distribution Board (DB) , made of sheet steel 16 SWG, degreased and derusted, with 2 coats of antirust paint, 2 coats of powder coated paint of approved colour, protection classification IP-44, totally enclosed indoor floor mounting cubicle type in free standing design, with hinged door, handle including cost of all auxiliaries, internal wiring, designation lables on MCCBS, grounding bar suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral bus bars of 99.9% electrolytic copper, including cost of cable terminal blocks wiring from breakers, brass cable glands, all accessories complete in all respects metion in BOQ or not required for performing completely. All incoming and outgoing breakers shall be accessible only by opening the front door having further M.S. sheet cover gaskets shall also be provided where necessary. Panel should be compeltely made in certified factory. ie PEL, Green T & D, Mazcorp engineering or equivalent approved by engineer incharge.				
		All MCCBs shall be suitable to operate without any derating at 40°C ambient temperature and shall be of one make only. The sides of MDB shall also have louvers at bottom and top on sides of panel for hot air exhaust, wire mesh etc. The back of the panel shall be lockable door instead of bolted and shall conform to single line diagram. item should be of ABB, Schneider or equivalent approved by engineer incharge				
	i	<b>Main Distribution Board</b>				
		<b>INCOMING</b>				
		NS 1250ATP 50KA Adj MCCB				
		03 No Digital Ammeter scaled 0-1200 Amps of appropriate sizes.				
		03 No Digital Ammeter scaled 0-300 Amps of appropriate sizes.				
		06 Nos. 6 amps ASP MCBs				
		06 Nos. R-Y-B indication lamps.				
		05 Nos.copper bus bars 1200 Ampere,three phase,Earth and Netural for distrubitions with appropriate size DB BOX				
		05 Nos.copper bus bars 225 Ampere,three phase,Earth and Netural for distrubitions with appropriate size DB BOX				
		02 Nos Phase Rotation/failure, (adjustable under/over voltage threshold),50/60Hz, 0.1~10 Sec Delay, 380~500V				
		02 No Thermostatically controlled 230 Volts robust exhaust fans 6"/8" dia. to be installed on front of MDB for hot air exhaust including cost of thermostat ON-OFF switches wire mesh and all necessary accessories / wiring, complete in all respects.				
		Surge protector 65KA				
		Surge protector 40KA				
		POWER FACTOR 200 KVAR	Job	1		
	ii	<b>DISTRIBUTION BOARD DB-AC-GF.FF.2F</b>				
		<b>INCOMING</b>				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
		05 Nos.copper bus bars 225Ampere,three phase,Earth and Netural for distrubitions with appropriate size DB BOX	Job	3		
	iii	<b>DISTRIBUTION BOARD DB-AC-FF1,2F1</b>				
		<b>INCOMING</b>				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
		05 Nos.copper bus bars 150 Ampere,three phase,Earth and Netural for distrubitions with appropriate size DB BOX	Job	2		
	iv	<b>DISTRIBUTION BOARD DB-GF</b>				
		<b>INCOMING</b>				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		05 Nos.copper bus bars 100 Ampere,three phase,Earth and Netural for distrubitions with appropriate size DB BOX				
		01 No Thermostatically controlled 230 Volts robust exhaust fans 6"/8" dia. to be installed on front of MDB for hot air exhaust including cost of thermostat ON-OFF switches wire mesh and all necessary accessories / wiring, complete in all respects.	Job	1		
v		<b>DISTRIBUTION BOARD DB-GF-01</b>				
		<b>INCOMING</b>				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
		05 Nos.copper bus bars 100 Ampere,three phase,Earth and Netural for distrubitions with appropriate size DB BOX	Job	1		
vi		<b>DISTRIBUTION BOARD DB-LAB IT</b>				
		<b>INCOMING</b>				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
		05 Nos.copper bus bars 100 Ampere,three phase,Earth and Netural for distrubitions with appropriate size DB BOX	Job	1		
vii		<b>DISTRIBUTION BOARD DB-A, A1, B, B1</b>				
		<b>INCOMING</b>				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
		05 Nos.copper bus bars 80 Ampere,three phase,Earth and Netural for distrubitions with appropriate size DB BOX	Job	4		
viii		<b>DISTRIBUTION BOARD DB-C, C1</b>				
		<b>INCOMING</b>				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
		05 Nos.copper bus bars 80 Ampere,three phase,Earth and Netural for distrubitions with appropriate size DB BOX	Job	2		
<b>2</b>		<b>LIGHT FIXTURES</b>				
		Supply, installation, testing and commissioning of following light fittings, ceiling, recessed,wall mounted as per specified fixture. Complete with internal wiring, Grounding terminal , driver complete in all respects. Lights should be of Phillips, ledvance or equivalent				
i)		40 watt 600m x 600m LED Light Fixture surface/recessed mounted, IP-22 rated	No.	17		
ii)		14 Watt 4t luxline LED wall/Ceiling mounted Light Fixture, IP-22 rated	No.	27		
iii)		20 Watt LED Light Fixture surface/recessed mounted, IP-22 rated	No.	308		
iv)		15 Watt LED Light Fixture surface/recessed mounted, IP-22 rated	No.	476		
v)		10 Watt LED Light Fixture surface/recessed mounted, IP-22 rated	No.	116		
vi)		50 watt chandellier as per approved style and color of Engineer incharge	No.	1		
<b>3</b>		<b>MISCELLANEOUS FITTINGS</b>				
		Supply, installation, testing & commissioning of Ceiling/ Exhaust fan. The ceiling/exhaust fan shall comprise circular fan metallic/ plastic body, metallic fan blades, down rod (if necessary) of suitable dia & length, AC capacitor, internal wiring, terminals all installation & operational accessories as per tender specifications, as per site requirements and as directed by the Engineer. make Bilal Switchgear Engineering, GFC, Pak Fan or approved equivalent.				
		12 " outer dia exhaust fan with plastic body,fan blades and louvers	No.	27		
<b>4</b>		<b>WIRING ACCESSORIES</b>				
		Supply at site, installation, testing and commissioning of the following wiring accessories, complete in all respects. Made of TJ or legrand, or equivalent				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
i)		10 Amps, 250Volts one way, One gang light control switches including appropriate size concealed Plastic back box.	No.	19		
ii)		10 Amps, 250Volts one way, Two gang light control switches including appropriate size concealed Plastic back box.	No.	48		
iii)		10 Amps, 250Volts one way, Three gang light control switches including appropriate size concealed Plastic back box.	No.	13		
iv)		10 Amps, 250Volts one way, Four gang light control switches including appropriate size concealed Plastic back box.	No.	27		
v)		10 Amps, 250Volts one way, Six gang light control switches including appropriate size concealed Plastic back box.	No.	20		
vi)		10 Amps, 250Volts one way, Eight gang light control switches including appropriate size concealed Plastic back box.	No.	29		
vii)		10 Amps, 250Volts one way, TEN gang light control switches including appropriate size concealed Plastic back box.	No.	7		
viii)		10 Amps, 250Volts 2 way, 1 gang light control switches including appropriate size concealed Plastic back box.	No.	10		
ix)		15 Amps, 250Volts, universal 5 in 1 switched socket unit including appropriate size Plastic back box.	No.	284		
x)		20 Amps Double Pole(DP) switch with neon indication lamp complete including appropriate size Plastic back box.	No.	56		
xi)		45 Amps Double Pole(DP) switch with neon indication lamp complete including appropriate size Plastic back box.	No.	27		
xii)		Fan Dimmer 250 watt with switch including appropriate size Plastic back box. with all associated accessories.	No.	134		
xiii)		Appropriate size of plastic body fan box and ceiling fan rod 24" in length	Nos	134		
xiv)		MS BAR for hanging Ceiling fan	Nos	134		
<b>5</b>		<b><u>GROUNDING SYSTEM</u></b>				
i)		<b><u>GROUNDING cable</u></b>				
a		Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only):- a) 250/440 volts, PVC insulated: 7/0.74 mm (7/0.029")	rmtr	1550		
b		Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 19/1.32 mm (19/0.052")	rmtr	170		
c		Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 6 mm sq (7/0.044")	rmtr	280		
d		Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 16 mm sq (7/0.064")	rmtr	120		
e		Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 185 mm sq (37/0.103")	rmtr	55		
ii)		<b><u>Plate type earthing</u></b>				
		Providing & fixing of Plate type Earthing commpressed with execveted hole 6"up 63 feet,G.I pipe 2"(50mm)with Tees , Sockets , Endcap of 60 (Rft) Copper Plate of 1/2"x 2"x 48", 2x 70mmsq S/Core copper bare conductor 125 (Rft) Earth Connection Point of 1200 x 50 x 50mm (L x W x T) Inspection Pit of 300 x 300 x 450 mm (L x W x D) completed with all respect	No.	2		

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
iii)		<b>Grounding Connection Point</b>				
		Supply of Grounding connecting points consisting of copper plate 300mm long x50mm wide x 6mm thick to be installed, complete with fixing arrangement, brass nuts bolts, washers, lugs, 12.5mm dia. holes to facilitate connections of Incoming copper strips / copper conductors.	Nos.	2		
iv)		<b>Testing and commissioning</b>				
		Testing and commissioning of the earthing system in the presence of site engineer with electronic devices such as megger etc, making so report with after approximating 3 time testing and the grounding ohm must be less than or upto 3 ohms	Nos.	2		
<b>6</b>		<b>CIVIL WORKS</b>				
i)		<b>Trench ( for LT Cable )</b>				
		Labour for excavation and refilling of trench 12" wide, 24" deep 9" sand compaction below and above in preinstalled PVC pipes, ramming watering all necessary material, labour etc, complete in all respect. Actual length of the trench shall be as per site condition and paid accordingly however approximate length of trench is given.	R.Mtr	260		
ii)		<b>Manhole For LT Cable Pulling ( If Required)</b>				
		Construction of manholes to facilitate pulling of cables in trench or conduit as shown on drawing, manholes shall be of the size 24" x 24" x 30" deep with 9" thick wall with cement mortar, internal plaster 1:4, 100mm thick RCC cover for manhole, including cost of all accessories / materials, complete in all respects. (Tentative number of manholes have been provided, however payment shall be made as per actual and as per quantity requirement)	Nos.	3		
iii)		<b>Conduit</b>				
		Supply and erection of PVC pipe for wiring recessed in walls, including inspection boxes, pull boxes, hooks, cutting jharries, and repairing surface, etc., complete with all specials				
a		20 mm i/d	R.Mtr	50		
b		25 mm i/d	R.Mtr	500		
<b>7</b>		<b>CCTV System</b>				
i		<b>Camera Cable</b>				
		Supply, installation, Testing and commissioning of CAT 6a UTP CABLE IN PVC PIPE Ø 1"; MEASUREMENT IN METERS complete in all respects.including cost of conduit and its accesories installing arrangment, making jurries in wall and repairment of wall. Made of D-Link or equivalent approved by engineer incharge	R.Mtr	2,461		
ii		<b>Camera</b>				
a		Supply, installation, Testing and commissioning of IP Camera for INDOOR, 2MP IR Bullet Network Camera Specs: 1/2.7" 2Megapixel progressive CMOS · H.265& H.264 dual-stream encoding · 25/30fps@1080P(1920×1080) · DWDR, Day/Night(ICR), 3DNR, AWB, AGC, BLC · Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS · 2.8 mm fixed lens (3.6mm optional) · Max IR LEDs Length 30m · IP67, PoE Color White complete in all respects. Make Dahua( DH-IPC-HFW1230S) or equivalent brand approved by site engineer	Nos.	74		

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
b		Supply, installation, Testing and commissioning of IP Camera for OUTDOOR, 4MP Lite IR Fixed-focal Bullet Network Camera. Specs Image Sensor 1/2.7" 4 Megapixel progressive CMOS. Effective Pixels 2592 (H) × 1944 (V)), MAX IR LED LENGTH 30m, Electronic Shutter Speed: Auto/Manual 1/3 s–1/100000 s. Min. Illumination : 0.008 Lux @ F1.6 Pan/Tilt/Rotation Range: Horizontal: 0°–360° Vertical: 0°–90° Rotation: 0°–360 Protection IP Rated 67, complete in all respects. Make dahua DH-IPC-HFW1431S or equivalent brand approved by site engineer	Nos.	18		
iii)		<b>Network Video Recorder (NVR -32- Channel)</b>				
		Supply, installation, testing and commissioning of 32 Channel NVRH.265+/H.265/H.264/H.264+ video formats Connectable to the third-party network cameras Up to 8-ch IP camera input for DS-7708NI-Q4/8P, and 16/32-ch IP camera input for DS-7716/7732NI-Q4/32P. Recording at up to 8 MP resolution. Supports live view, storage, and playback of the connected camera at up to 8 MP resolution 4 SATA interfaces connectable for recording and backup H.265+ compression effectively reduces the storage space and including cost of 6 TB hard drive. Made of dahua Dahua NVR 4216/4232 16CH/32CH NVR, or equivalent approved by site engineer	Nos	3		
iv		<b>Display Screens (Wall Mounted)</b>				
		22 inch LED type colored monitors with mounting arrangement, including cost of all necessary accessories, complete in all respects. Made of samsung or equivalent approved by site engineer.	Nos	2		
v		<b>Data Cabinets</b>				
		Supply at site, installation, testing and commissioning of data cabinet of approximate size as mentioned below, powder coated, having lockable glass door at front, 2 exhaust fans on top, suitable for under mentioned patch panels, consisting of the following data points to be terminated on modular patch panel, including cost of power bus bar, suitable for Cat. 6a cables patch guides, patch cords for Data points, all necessary accessories / materials for active and passive equipment. The data cabinet shall be complete in all respects including cost of all necessary materials / accessories required for proper functioning for the data cabinet. Data cabinet shall be installed after obtaining necessary permission from the computer specialist of the Client. made of Matrix, d-link or equivalent approved by site engineer				
a		Supply, installation, testing and commissioning of DATA RACK 27U 600x 800; PREFORATED; 01x FIX, 01x SLIDING TRAYS; 04 FANS; 1x 06 WAY ALL PDU.;, complete in all respects.	Nos.	1		
b		Data Cabinet 6U 368 x 570 x 390 mm Wall Mounted Imported made of M.S sheet, Powder Coated, having lockable glass door at front, double section , fans on top, to accommodate UTP Cat-6a, 24 port patch panel, UTP Cat-6a Patch Cords 1 meter length, Cable Manager, ODF, Six socket Power distribution Unit.	Nos.	4		
vi		<b>Patch Panel</b>				
		Supply, installation, testing and commissioning of PATCH PANEL 24 PORT Fully LOADED WITH Cat-6 I/Os SUITABLE FOR CAT-VI UTP CABLE; RACK MOUNT , complete in all respects. made of D-Link(NPP-C61BLK241)	Nos.	5		
vii		<b>Cable Manager</b>				
		Supply, installation, testing and commissioning of MS CABLE MANAGER/ORGANISER RACK MOUNT , complete in all respects. 19"1U Metal cable Management with rings. Made of D-Link(NCM-M01) or equivalent approved by site engineer	Nos.	5		
viii		<b>Patch Cord</b>				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Supply, installation, testing and commissioning of LC-SC Multimode (50/125um) OM2 Duplex Patch Cord,3m, complete in all respects. Made of Dlink (NCB-FM50D-LCSC-3) or equivalent approved by site engineer	Nos.	82		
ix		<b>6 port PDU</b>				
		Supply, installation, testing and commissioning of 6 PORT IEC PDU, (6) IEC C19 OUTPUT & (1)IEC C20 INPUT PLUG 16A 240V PDU made of BayLan, serveredge or equivalent approved by site engineer	Nos.	5		
x		<b>Fiber Optic Cable</b>				
		Supply at site, installation, testing and commissioning of the following Fiber Optic Cables to be installed in conduits, cable trays and duct including cost of all necessary accessories/ materials complete in all respect. Cable should be made of D-Link or equivalent & Conduit should be of solo, popular or equivalent approved by site engineer				
		12 Core Multimode (50/125um) OM2 Unitube Armoured Outdoor Fiber Cable - HDPE Sheath in meters D-Link(NCB-FM500-AUHD-12)	R.Mtr	300		
8		<b>TELEPHONE / VOICE SYSTEM</b>				
i		<b>Telephone Points in Walls Outlet Boxes</b>				
		Supply at site, installation, testing & commissioning of Wiring for each Telephone point with 5 pair telephone cable , in 1" dia conduit partly shared, solid plain copper conductors, solid PVC insulation, conductors twisted together in pairs, overall PVC sheath, conductor resistance (Max @ 200C) 97.8ohms/km, capacitance Unbalanced (Max) 500pF/500m, insulation resistance (Min @ 200C): 50Mohms/km including cost of Keystone Jack with Back Box to be installed on Walls, from Junction box to Telephone Points on walls, complete in all respect. including cost of conduit and its accesories installing arrangment, making jurries in wall and repairment of wall. cable should be made of D-link or equivalent & Conduit should be of solo, popular or equivalent approved by site engineer.	Nos	20		
ii		<b>Telephone Junction Box (TJB)</b>				
		Supply, installation, testing and commissioning of telephone junction box to facilitation of connection of I/C and O/G cables to be installed in ground floor, complete in all respects panasonic or equivalent company approved by site engineer				
		20 pair TJB	No.	3		
iii		<b>Telephone Sets</b>				
		Supply at site, installation, testing and commissioning of Analogue Telephone set with CLI facility. (Hardware must be latest and market prevalent and should not be end of life product) made of panasonic(Model # KX -TSC92CID) or equivalent approved by site engineer	Nos.	20		
iv		<b>Intercome system/telephone exchange</b>				
		Supply, installation, testing and commissioning of intercome system/telephone exchange for 60 telephone. console set with DISA card with license panasonic TDA100. or equivalent approved by site engineer	Nos.	1		
v		<b>Faceplate</b>				
		Supply, installation, testing and commissioning of faceplate SINGLE SHUTTER/PORT WITH 1x RJ-11 I/O & BACK BOX , complete in all respects. Made of legrand or equivalent approved by site engineer	Nos.	20		
9		<b>DATA NETWORKING SYSTEM</b>				
i		<b>Data Network point (More than 7 MTR)</b>				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Wiring for each data/computer point with UTP, 4 pair Cat 6a (500 Mhz ) Network Cable supports (10 Giga) laid in PVC Conduit , with pure copper conductor PVC insulated PVC sheathed including cost of Single Shutter Face palte with UTP Cat-6a Keystone Jack with Back Box to be installed on walls, from Data Cabinet to Computer Points, PVC conduit & Cable tray. including cost of conduit and its accesories installing arrangment, making jurries in wall and repairment of wall. cable should be made of D-link(NCB-6AUGRYR-305) or equivalent & Conduit should be of solo, popular or equivalent approved by site engineer.	Points	120		
ii		<b>Data Network point (less than 7 MTR)</b>				
		Wiring for each data/computer point with UTP, 4 pair Cat 6a (500 Mhz ) Network Cable supports (10 Giga) laid in PVC Conduit , with pure copper conductor PVC insulated PVC sheathed including cost of Single Shutter Face palte with UTP Cat-6a Keystone Jack with Back Box to be installed on walls, from 8 port switch to Computer Points, PVC conduit & Cable tray. including cost of conduit and its accesories installing arrangment, making jurries in wall and repairment of wall cable should be made of D-link(NCB-6AUGRYR-305) or equivalent & Conduit should be of solo, popular or equivalent approved by site engineer.	Points	70		
iii		<b>Networking Switch</b>				
a		Supply, installation testing and commisioning of 24 port layer 2 network switch 10/100/1000 MBPS with 04 giga SFP uplink ports, switching capacity 56 GBPS, rack mounted to be instaled in data cabinit, complete in all respect. Make cisico / HP / AL catel or equivalent (specification as per dgs-1210-28p) approved by Engineer Incharge	Nos.	1		
b		Supply, installation, testing and commisioning of 24 port POE switch of following specification 24 × 100 Mbps PoE ports, and 2 × 1000 Mbps combos. IEEE 802.3at/af standard. IEEE 802.3, IEEE 802.3u and IEEE 802.3x standard. High priority ports. 8-core power supply. Upstream port link aggregation. Up to 250 m transmission distance. 6 KV surge protection for PoE ports. PoE power management. 100 Mbps network access make dahua DH-PFS4226-24ET-240 or equivalent approved by engineer incharge	Nos	14		
c		Supply, installation, testing and commisioning of TP-Link 8-Port Gigabit Easy Smart Switch with 4-Port PoE (TL-SG108PE) 8 10/100/1000Mbps ports provide instant large file transfers • Equipped with 4 802.3af PoE ports with up to 15.4W for each port • Supports PoE power up to 55W for all PoE ports • IEEE 802.3x flow control provides reliable data transfers approved by Engineer Incharge	Nos	15		
iv		<b>Data Cabinets</b>				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Supply at site, installation, testing and commissioning of data cabinet of approximate size as mentioned below, powder coated, having lockable glass door at front, 2 exhaust fans on top, suitable for under mentioned patch panels, consisting of the following data points to be terminated on modular patch panel, including cost of power bus bar, suitable for Cat. 6a cables patch guides, patch cords for Data points, all necessary accessories / materials for active and passive equipment. The data cabinet shall be complete in all respects including cost of all necessary materials / accessories required for proper functioning for the data cabinet. Data cabinet shall be installed after obtaining necessary permission from the computer specialist of the Client. made of Matrix, d-link or equivalent approved by site engineer				
a		Data Cabinet 6U 368 x 570 x 390 mm Wall Mounted Imported made of M.S sheet,Powder Coated, having lockable glass door at front,double section , fans on top,to accomodate UTP Cat-6a, 24 port patch panel, UTP Cat-6a Patch Cords 1 meter length, Cable Manager, OFDF, Six socket Power distribution Unit.	Nos.	7		
b		Supply, installation, testing and commissioning of DATA RACK 27U 600x 800; PREFORATED; 01x FIX, 01x SLIDING TRAYS; 04 FANS; 1x 06 WAY ALL PDU;, complete in all respects.	Nos.	1		
v		<b>Patch Panel</b>				
		Supply, installation, testing and commisioning of PATCH PANEL 24 PORT Fully LOADED WITH Cat-6 I/Os SUITABLE FOR CAT-VI UTP CABLE; RACK MOUNT , complete in all respects.made of D-Link(NPP-C61BLK241)	Nos.	7		
vi		<b>Cable Manager</b>				
		Supply, installation, testing and commisioning of MS CABLE MANAGER/ORGANISER RACK MOUNT , complete in all respects. 19"1U Metal cable Management with rings. Made of D-Link(NCM-M01) or equivalent approved by site engineer	Nos.	7		
vii		<b>Faceplate</b>				
		Supply, installation, testing and commisioning of single Faceplate Accepts Two Keystone Jacks with Shutter & ID Plate- 86*86 mm - White Colour - Square with Cat6 UTP 180 ° Punch Down Keystone Jack - White Colour and Back Box for Dual Shutter Face/Plate. Plastic(D35xH85xW85 CM), complete in all respects. made of D-Link(NFP-0WHI21)+(NKJ-C6WHI1B21) or equivalent approved by site engineer	Nos.	190		
viii		<b>Fiber Optic Cable</b>				
		Supply at site, installation, testing and commissioning of the following Fiber Optic Cables to be installed in conduits, cable trays and dura duct including cost of all necessary accessories/ materials complete in all respect including cost of conduit and its accesories installing arrangement, making jurries in wall and repairment of wall. Cable should be made of D-Link or equivalent & Conduit should be of solo, popular or equivalent approved by site engineer				
		12 Core Multimode (50/125um) OM2 Unitube Armoured Outdoor Fiber Cable - HDPE Sheath in meters D-Link(NCB-FM500-AUHD-12)	R.Mtr	400		
ix		<b>Wifi Access Points</b>				
		Supply at site, installation, testing and commissioning of the instant access point for Wifi( Enterprise), making the job complete in all respects.	Job	10		
x		<b>Patch Cord</b>				
		Supply, installation, testing and commisioning of LC-SC Multimode (50/125um) OM2 Duplex Patch Cord,3m, complete in all respects. Made of Dlink (NCB-FM50D-LCSC-3) or equivalent approved by site engineer	Nos.	120		
xi		<b>6 port PDU</b>				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Supply, installation, testing and commissioning of 6 PORT IEC PDU, (6) IEC C19 OUTPUT & (1) IEC C20 INPUT PLUG 16A 240V PDU made of BayLan, serveredge or equivalent approved by site engineer	Nos.	7		
xii		<b>Television point</b>				
		Supply at site, installation, testing & commissioning of Wiring for each Television point with coaxial cable RG-6 1.0 MM (BLACK) CU CLAD, in 1" dia conduit partly shared, Network Cable pure copper conductor PVC insulated PVC sheathed including cost of Jack with Back Box to be installed on Walls, from booster to Television Points on walls, complete in all respect including cost of conduit and its accessories installing arrangement, making juries in wall and repairment of wall. cable should be made of D-link or equivalent & Conduit should be of solo, popular or equivalent approved by site engineer.	Nos	3		
xiii		<b>Faceplate</b>				
		Supply, installation, testing and commissioning of faceplate SINGLE SHUTTER/PORT WITH 1 gang tv outlet & BACK BOX , complete in all respects. Made of legrand or equivalent approved by site engineer	Nos.	3		
10		<b>Fire Alarm System</b>				
		Supply, installation, testing and commissioning of following items as per drawings, specifications, & instructions of the Engineer, complete in all respect, all item should be of Gent by honeywell, ETON uk or approved equivalent as approved by the Engineer as required.				
i		<b>Manual Call Point</b>				
		Supply, install testing and commissioning of manual call point RESET type with allied components with full functionality as per specification of manufacturer / drawing with proper staff and tools and plants etc. Input Source Zone signal Address Coding dip switch Operating Voltage 26V DC Alarm Current 6mA Quiescent Current 850µA Ambient Temperature 0°C ~ +50°C Material Fire-proof plastic	Each	10		
ii		<b>Smoke Detector</b>				
		Supply, install testing and commissioning of Addressable Optical Smoke Detectors incorporating a with in the housing of the detector. Sensing of the detector shall be adjustable via software between 0-90 seconds. Address Coding Binary Alarm Current DC26V 6mA Standby Current DC26V 850µA Sensitivity Setting Comply to EN54 Ambient Temperature 0°C ~ +50°C Material Fire-proof plastic	Each	106		
iii		<b>Heat Detector</b>				
		Supply, install testing and commissioning of Low profile intelligent analogue addressable multi sensor with combined optical thermal sensors in a single housing with dual LED for 360 deg. viewing and mounting base. Address Coding Binary Alarm Current DC26V 6mA Standby Current DC26V 850µA Sensitivity Setting Comply to EN54 Thermal Setting 58°C Ambient Temperature 0°C ~ +50°C Material Fire-proof plastic	Each	1		
iv		<b>Sounder</b>				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Supply, install testing and commsiong of Intelligent analogue addressable Loop powered sounder with flasher and red body and wall mounting base.Input Source Zone signal Address Coding Binary dip switch Operating Voltage 26.5V DC Standby Current Under 850µA Alarm Current Under 8mA Sound Output 90 ±4dB at 1 meter Sounder Output 2.3~3.4KHz Ingress Protection IP65 Ambient Temperature -20°C ~ +50°C Ambient Humidity 10% ~ 95% Material Fire-proof plastic	Each	10		
v		<b>FACP</b>				
		Supply, install, testing and commsiong of Addressable FACP. Each loop can connect up to 250 addressable devices. Maximum networking are 32 loops and total addressable points are 8000. Large LCD screen (40 x 15 lines) allows more events to be displayed on the same screen. Power 220V AC 50/60Hz *Others also available Battery Capacity 24V DC 4Ah Charging Voltage, Current 26V DC 100~400mA *With auto adjustment function Zone Voltage, Current 26.5V DC 340mA System Capacity 250 devices/1 loop *Expandable for site requirement Exterior Resistance Round-trip under 40Ω Transmitting Method Digital series transmitting Accumulation Time 0~40 seconds Main Sound 85dB @1M Material 1.6mm steel plate	Each	1		
vi		<b>Cable</b>				
		Supply, install testing and commsiong of 2 x 2.5 mmsq shielded drain wire, 30 minutes fire resistance,red, LPCB approved, BS 7629-1/2008, BS 5839-1 standard in 25 mm dia pvc conduit complete in all respects including cost of conduit and its accesories installing arrangement, making jurries in wall and repairment of wall .(Newage, Pakistan Cable, Fast or approved equivalent). Solo or popular conduit or approved by engineer Incharge.	Rmtr	2,250		
vii		<b>Programming, Testing and Commissioning</b>				
		Programming, Testing and Commissioning of Complete system by authorized certified company complete in all respects as per instructions of the Engineer.	Job	1		
viii		<b>Fire Extinguishers</b>				
		Supply & installation of 1 x 6kg DCP CO2 Fire Extinguishers installed as per instructions of Cleint, complete with wall hanging and mounting arrangement complete in all respects. Complete in all respect as approved by site engineer	Nos.	12		
11		<b>Air Conditioning</b>				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Providing, shifting, fixing, testing, commissioning, adjusting and balancing of standard (Cool only) DC inverter technology air conditioning units, including indoor evaporating and out door condensing unit, the indoor units wall mounted of capacities as specified below, complete with factory charged refrigerant, piping insulation including condensate copper piping connection, between indoor/outdoor units (at roof top for front ac and on outside wall for other acs conduiting and any additional charge of refrigerant accessories, and Drain piping upto nearest drain water line included in these rates making the job complete in all respect. AC should be of Haier,dawlance, gree or equivalent, copper piping should be of muller, trox and insulation of Durkflex or equivalent, Drain pipe should be 3/4" dia pvc pipeof master, turkplast or equivalent as approved by site engineer				
		1/4 and 1/2 copper piping shouls be used till 1.5 ton AC and 5/8 and 3/8 piping should be used for 2 ton AC and 3/8 and 1/2 for 4 ton AC between indoor and outdoor unit.				
		The AC Unit should maintain approx 11 BTU per cubic feet plus addition of 3000BTU in the total amount for persons and devices				
	i)	<b>Ac unit indoor and outdoor</b>				
	a	1 Ton 12000BTU standard inverter heat and cool air conditioner	Nos.	11		
	b	1.5 Ton 18000BTU standard inverter heat and cool air conditioner	Nos.	7		
	c	2 Ton 24000BTU standard inverter heat and cool air conditioner	Nos.	10		
	d	4 Ton 4800BTU standard inverter heat and cool air conditioner cabnit Floor Standing	Nos.	26		
	ii)	<b>Frame</b>				
		Mild Steel 14 SWG Frame For Outer Unit.	Nos.	54		
<b>12</b>		<b>Generator</b>				
		Supply, installation, testing and commissioning of Diesel Engine Prime rating Generator in accordance with ISO-3046, ISO-9001:2015, BS-5514, DIN-6271, AS-2789, 2014/3/EU electromagnetic compatibility and 2000/14/EC, noise emission for outdoor use. Engine and alternator mounted on robust skid frame including fuel tank, control panel, diesel engine four stroke, water cooled 1500 RPM, built in battery charger, batteries and brushless self-excited alternator, 400/230V, 3 phase and NL, 50 Hz, power factor 0.8, with ATS panels (CBU) complete assembled, integrated/manufactured in EU, UK & USA 200 KVA. with weather and sound proof canopy, including main frame structure made of 14 SWG, epoxy painted insulation material (Glass wool), complete in all respect with noise level 84 dBA at 1 meter distance, Rubber Pads underneath to control vibration of Generator. Misc. Material Like PVC Pipe, Flexible Pipe, Tape including all necessary material complete in all respect approved by engineer incharge	Job	1		
<b>13</b>		<b>RFID System</b>				
		Supply at site instalaltion testing and commissiiong of RFID system for Books with following items				
		1 No of RFID 3D Detection Gate (Pair) (with SMS and email alerts module if un-issued book passed through RFID Gate)				
		1 No of RFID Desktop Reader (including Fingerprint and RFID Card Reader) for Tagging and Circulation				
		50000 No of RFID Book Tgas 13.56 MHz (Life time Warranty)				
		1 No of -RFID Handheld Reader for Inventory/Stock Taking,Book Searching and book detail features . Communication mode Wire,bluetooth and wifi with any windows Tablet/PC/Laptop (with 7 inch Android tablet) (Optional)				
		1 No of -Self Issue/Return Kiosk with Fingerprint and RFID Card Identification. (Optional)				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		1 no of -Fully Automated RFID Book Drop Kiosk/Drive through (with conveyor Belt) (Optional)				
		1 no of-DDS Software Integration with KOHA or any Customised Software(Conversion to RFID, Fingerprint)				
		1 no of-KOHA Library Software Installation				
		1 no of -Hardware Installation, Configuration, Commissioning & Training				
		Complete in all respects and approved by engineer incharge	Job	1		
<b>14</b>		<b><u>Lift passenger</u></b>				
		Supply, installation, testing and commissioning of brand new passenger lifts (L1) having as per specifications. chinese brand 1 Elevator Type Passenger Motor Drive Elevator A.2 Application College Building A.3 Shaft Structure Concrete Shaft A.4 Shaft Size 5.5 Feet x 7.5 Feet A.5 Machine Room Directly above the shaft A.6 Mechanism Gearless A.7 Travel Height 45 Feet Approx A.8 Elevator Capacity 600 Kg A.9 Floors/Doors/Stops 3 Floors / 3 Doors / 3 Stops A.10 Elevator Machine 5 Kw, Motor Drive A.11 Control System VVV3F, Collective Selective, 380v AC, 24v DC Operation. A.12 Cab & Door Interior Cabin & Door Full support of 304 Stainless Steel Center Opening Fully Auto full SS door A.13 Standard This elevator as designed according to EN81-1 & meet all the requirements of CE certification A.14 Safety Standard EN-81-1 (C Union Safety Code for Elevators)	Job	2		
<b>Total of Non CSR Items</b>						
<b>Grand Total</b>						