BILL NO. A: PRELIMINARIES

BILL OF QUANTITIES

ITEM NO.	DESCRIPTION	PAYMENT MODE	UNIT	QTY.	UNIT RATE (RS)	AMOUNT (RS)
Α.	PRELIMINARIES					
	Note: Following items to be priced as appropriate.					
	The bidder is advised to visit the site of the proposed work, as it is his responsibility to ascertain the Conditions, governing access to the site, the external working space, storage area, status of the adjoining properties etc.			Note		
	The Contractor shall be responsible for any loss or damage to the work, existing structures, adjoining structures and unfixed materials.			Note		
	The contractor shall responsible for providing adequate provision to reduce the amount of vibration dust pollution and noise from the site and shall be the contractor's responsibility for any complaints, damages or claims in connection with works.			Note		
	The contractor shall be responsible for carrying out accurate survey to define the building site works etc., and check the layout and all levels and such other surveys as may be necessary to establish accurately the placing of forms and pouring of concrete and all other works and setting out in both vertical and horizontal plane.			Note		
	All the temporary works shall be dismantled and cleared away from the site on completion of the work			Note		
	Any other preliminary items not listed below/above but deemed to be included in the tender rates, as no extras would be made			Note		
	Mode of payment for preliminary items shall be as described below; (A) - Reimbursement of actual cost on submission of the relevant documents acceptable to the Engineer plus 5% of the actual cost of obtaining the Insurance Policies and Securities, subjected to the maximum quoted for that item.					
	(B) To be paid on signing of the formal Contract Agreement.					
	(C) 60% on completion of temporary buildings or structures. 30% in equal installments over the contract period and balance 10% on dismantling and removal on completion. (D) Paid on satisfactorily completion of the item.					

BILL NO. A: PRELIMINARIES

BILL OF QUANTITIES

ITEM NO.	DESCRIPTION	PAYMENT MODE	UNIT	QTY.	UNIT RATE (RS)	AMOUNT (RS)
	(E) In equal installments over the contract period.					
	(F) Mode of payment to be mutually agreed between Contractor and the Employer at the commencement of contract in relation to the Programme of work. (G) On the completion of Works.					
A.1	Insurance and Securities Allow Lump sum for providing a Performance Security as specified.	А	Item			
A.2	Allow Lump sum for providing an Advance Payment Security as specified.	Α	Item			
A.3	Allow Lump sum for insurance of Works, Machinery & Equipment, Plant, Materials, third party persons & property and Employer's personnel & property at site as per the Contract.		ltem			
A.4	Allow Lump sum for insurance against accidents and injury to Contractor's personnel as per the Contract.		Item			
A.5	Contractor's Facilities Allow lump sum for constructing, maintaining, dismantling and removal on completion of the works, a temporary site office of adequate size including staff rest room and toilets and other facilities for the Contractor's site management staff in accordance with the plans prepared by the Contractor and concurred by the Engineer.		Item			
A.6	Allow lump sum for constructing, maintaining, dismantling and removal on completion of the works, buildings to be used as workshops and stores for materials.		Item			
	Construction Management and Supervision					
A.7	Allow lump sum for employing suitably qualified and experienced technical personnel on full time basis for Construction Management Services at the site.					
	For 1 nr. Civil Engineer/Project manager as specified over contract period. (Part time basis)	Е	month	5		
	For 1 nr. Technical Assistant as specified over contract period. (Full Time Basis)	E	month	5		

BILL NO. A: PRELIMINARIES

BILL OF QUANTITIES

ITEM NO.	DESCRIPTION	PAYMENT MODE	UNIT	QTY.	UNIT RATE (RS)	AMOUNT (RS)
A.8	Quality, Standards and Progress Allow lump sum for provision of progress reports including photographic records and other schedules included in the ICTAD publication - Guidelines for Effective Construction Management. (ICTAD/CM/01), relevant to contract administration as directed by the	E	month	5		
A.9	Engineer. Allow lump sum for all cost in connection with preparing samples for testing, making arrangements for testing of Materials, Goods etc., as stipulated in the specification, obtaining test reports and submitting the same to the Engineer.	Е	Item			
A.10	Allow lump sum for provision of 2 sets of (hard copies and soft copies) as-built drawings of all services, for Engineer's approval. Health, Safety and Environment	G	Item			
A.11	Allow lump sum for providing all necessary safety measures to workmen at site conforming to the latest industrial safety regulations and as directed by the Engineer.	E	Item			
A.12	Allow lump sum for maintaining the site in a clean and orderly manner, dust control, watering area minimum twise daily at all times and during the entire contract period.	E	Item			
A.13	Allow lump sum for demobilization, removal of all rubbish & debris and clearing up site on completion, leaving all in good order and handing over. Security and Protection	G	Item			
A.14	Allow lump sum for providing and maintaining necessary fencing, hoarding and gates for safeguarding the Works, Materials and Plant, as directed by the Engineer.	С	Item			
A.15	Services and Facilities Allow lump sum for supply of water for the Works and paying all charges and other expenses in connection with the supply from water mains or any other alternative method of water supply, storage and reticulation.	E	Item			deleted
A.16	Allow lump sum for supplying temporary electricity for the Works including connection, distribution system for the Works, internal arrangements and all payments to the authorities for consumption.	E	Item			deleted
Α	TOTAL CARRIED TO	SUMMARY				

SUMMARY OF BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

ITEM	DESCRIPTION	AMC	DUNT
112141	DESCRIPTION	Rs.	Cts.
B1	DEMOLISHION		
В2	EXCAVATION & EARTH WORK		
В3	CONCRETE WORK		
B4	MASONRY WORK		
B5	WATER PROOFING WORK		
В6	ALUMINIUM WORK		
В7	STRUCTURAL METAL WORK		
В8	ROOF AND ROOF PLUMBING WORK		
В9	FLOOR, WALL AND CEILING FINISHES		
B10	PAINTING AND DECORATING		
B11	PLUMBING / SANITARY INSTALLATIONS		
B12	MISCELLANEOUS WORK	1,00	00,000.00
SUB	TOTAL OF LABORATORY (BILL NO B) CARRIED TO GRAND SUMMARY		

BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	ite	Amo	ount
				Rs.	Cts.	Rs.	Cts.
	GENERAL NOTES						
	All inventory items and other usable materials arising from demolitions shall be the property of the Client and shall be temporary stacked within site and handed over to the Client as directed by the Engineer.						
	Any clarification Please contact engineer before pricing the bid.						
	Sample should be approval by engineer before fixing. Scaffolding work should be included into rates						
B.1	DEMOLISHION						
	All Demolition works including following work and clearing debrises away from site. Demolition of existing brick/block walls & clearing debris from site. (4 m3)	item					
	Removing valance/ barge boarding, stacking materials and clearing debris as directed in two storied buildings. Includes scaffolding and safety measures etc. (30m) Cutting and removing eve roofs in existing buildings						
	(30m) Removing of existing Temporary Hut						
	Removing & Replacing AC Outdoor units (10 nr)						
	Demolition of 150mm tk R/F concrete canopy (8m long & 1.5m wide)						
	All debrises collecting stacked & cleared away from site within 10Km away from site						
	Shifting telephone cable if necessary						
	Demolishion of floor concrete in Temporary Hut						
B.1	TOTAL CARRIED TO S	SUMMARY		•			

BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

B.2 EXCAVATION AND EARTHWORK 8.2.1.1 Clearing and preparation of site premises m² 75.00 8.2.2 EXCAVATION Rate is included for: Back filling with selected excavated material & consolidating. Surface treatment; compaction before filling / foundation. Disposal of surplus soil as directed & keeping all excavations free from water unless other wise measured separately. Any additional excavation for working space. Excavations are measured net. No allowance made for working space. Excavations as follows in any materials met with except in rock requiring blasting, up to a depth of 1.5m from existing level . Rate is included for working space. (Existing manhole, water supply network and telephone cabes are located inside the site premises. Excavation should be done by protecting those items. Therefore manual excavation is recommended) 8.2.3.1 Filling with approved imported earth , to make up levels (formation level) , under floors and beams, well rammed and consolidated in layers. (Well compacted to achieve 98% or more compaction.) 8.2.3.2 Filling under floors with approved available earth in layers not exceeding 150mm including watering and ramming. (Well compacted to achieve 95% or more compaction.) 8.2.3.3 Filling with Aggregate Base Course (ABC), Work comprising supplying, placing, leveling, watering and compacting ABC using machineries in 150 mm thk. layers. (Well compacted to achieve 98% or more compaction.)	ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	ite	Amo	unt
B.2.1. SITE PREPERATION B.2.1.1 Clearing and preparation of site premises m² 75.00 B.2.2 EXCAVATION Rate is included for: Back filling with selected excavated material & consolidating. Surface treatment; compaction before filling / foundation. Disposal of surplus soil as directed & keeping all excavations free from water unless other wise measured separately. Any additional excavation for working space. All excavations are measured net. No allowance made for working space. Excavations as follows in any materials met with except in rock requiring blasting. B.2.2.1 Excavation for foundation in any material except rock requiring blasting, up to a depth of 1.5m from existing level . Rate is included for working space. (Existing manhole, water supply network and telephone calbes are located inside the site premises. Excavation is recommended) B.2.3. Filling B.2.3.1 Filling with approved imported earth , to make up levels (formation level) , under floors and beams, well rammed and consolidated in layers. (Well compacted to achieve 98% or more compaction.) B.2.3.2 Filling under floors with approved available earth in layers not exceeding 150mm including watering and ramming. (Well compacted to achieve 95% or more compaction.) B.2.3.3 Filling with Aggregate Base Course (ABC). Work comprising supplying, placing, leveling, watering and compacting ABC using machineries in 150 mm thk. layers. (Well compacted to achieve 98% or					Rs.	Cts.	Rs.	Cts.
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comprising supplying, placing, leveling, watering and compacting ABC using machineries in 150 mm thk. layers. (Well compacted to achieve 98% or	B.2.3.2	layers not exceeding 150mm including watering and ramming. (Well compacted to achieve 95% or	m ³	10.00				
	B.2.3.3	comprising supplying, placing, leveling, watering and compacting ABC using machineries in 150 mm thk. layers. (Well compacted to achieve 98% or	m ³	5.00				
B.2 TOTAL CARRIED TO SUMMARY	B.2	TOTAL CARRIED TO	SUMMARY					

BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	ite	Amo	ount
				Rs.	Cts.	Rs.	Cts.
B.3	CONCRETE WORKS						
	Rate shall include for depositing, handling, curing, transporting, hoisting into position, vibrating etc. and making good after removal of formwork etc.	Note					
	Contractor shall not cause any damage direct or consequential to the new structure during carrying out the work detailed in "Concrete Work" Section and he shall at his own expense, make good any damage caused to them, arising directly and/or indirectly out of his fault and/or negligence and/or failure to take precautionary measures to avoid such damage.	Note					
	The method of transporting concrete shall be submitted for approval. Concrete shall be transported in uncontaminated watertight containers in such a manner that loss of material and segregation are prevente	Note					
	Rates for lean concrete shall include for preparation of bottom of excavation prior to pouring of lean concrete.	Note					
	All ready mix design to be submitted for prior approval of the Engineer. The tenderer shall indicate his probable ready mix suppliers and their details before commence the work. Contractor also shall submit probable kind/manufacture of cement proposed to be used.	Note					
	Prior approval to be obtained for mix design and all concrete shall be with river sand.	Note					
B.3.1	Grade 15 (20) concrete poured into ground						
	For Column/ Rubble foundation						
	Up to DPC Level						
B.3.1.1	50 mm thick Screed	m^2	24.00				
B.3.2	Grade 20 (20) concrete poured into						
	Up to DPC Level						
B.3.2.2	In Ramp, raise floor (Chip to be added if necessary)	m^3	1.00				

BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	te	Amo	unt
				Rs.	Cts.	Rs.	Cts.
B.3.3	Grade 25 (20) concrete poured into						
	Up to DPC Level						
B.3.3.1	Column footing	m ³	7.50				
B.3.3.2	Columns shafts	m ³	1.00				
B.3.3.3	Tie Beams	m ³	5.50				
	GROUND FLOOR TO FIRST FLOOR LEVEL						
B.3.3.4	Columns	m^3	1.75				
B.3.3.5	Beams & Slab	m^3	22.00				
	FIRST FLOOR TO SECOND FLOOR						
B.3.3.6	Columns	m^3	2.50				
B.3.3.7	Beams & Slab	m^3	28.00				
B.3.3.8	Concrete Ledge	m^3	2.00				
	SECOND FLOOR TO ROOF LEVEL						
B.3.3.9	Columns	m^3	2.50				
B.3.3.10	Beams & Slab	m^3	16.50				
B.3.3.11	Concrete Ledge	m^3	1.00				
B.3.4	FORM WORK						
	Formwork has been measured as the net contact surface measurement between concrete and formwork.	Note					
	Rate for form work to be included for all necessary boarding, supports, erecting, framing, cutting angles, cleaning, wetting and any surface treatment before and after placing of concrete.	Note					
	Easing, striking, removing and cleaning and preparing for re-use and removal when no longer required.	Note					
	Up to DPC Level						
B.3.4.1	Column footing	m ²	19.00				
B.3.4.2	Columns shafts	m^2	12.00				
B.3.4.3	Tie Beams	m^2	90.00				
	GROUND FLOOR TO FIRST FLOOR LEVEL						
B.3.4.4	Columns	m ²	28.00				
B.3.4.5	Beams & Slab	m ²	152.00				

BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	ite	Amo	ount
				Rs.	Cts.	Rs.	Cts.
	FIRST FLOOR TO SECOND FLOOR	2					
B.3.4.6	Columns	m ²	40.00				
B.3.4.7	Beams & Slab	m ²	200.00				
B.3.4.8	Concrete Ledge	m^2	25.00				
	SECOND FLOOR TO ROOF LEVEL						
B.3.4.9	Columns	m ²	41.00				
B.3.4.10	Beams & Slab	m^2	100.00				
B.3.4.11	Concrete Ledge	m^2	10.00				
B.3.5	REINFORCEMENT						
	Rate to include for supplying, cleaning, cutting, bending, fabricating, placing and the provision of all necessary temporary fixings and supports etc. including binding wires, bends, hooks, chairs tying wires, distance blocks, steel separators/spacers (designed laps and m.s. chairs if any included in quantities).	Note					
	High yield steel (to BS 4449 & characteristic strength fy = 460 N/mm2) and Mild Steel (to BS 4449 & characteristic strength fy = 250 N/mm2) reinforcement for followings	Note					
B.3.5.1	Up to DPC Level						
B.3.5.1.1	In Ground floor / steps	t	0.05				
B.3.5.2	UP TO DPC LEVEL						
B.3.5.2.1	Column footing	t	0.75				
B.3.5.2.2	Columns shafts	t	0.10				
B.3.5.2.3	Tie Beams	t	0.66				
	GROUND FLOOR TO FIRST FLOOR LEVEL						
B.3.5.2.4	Columns	t	0.18				
B.3.5.2.5	Beams & Slab	t	2.70				
	FIRST FLOOR TO SECOND FLOOR						
B.3.5.2.6	Columns	t	0.25				
B.3.5.2.7	Beams & Slab	t	3.36				
B.3.5.2.8	Concrete Ledge	t	0.16				

BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	ite	Amo	unt
				Rs.	Cts.	Rs.	Cts.
	SECOND FLOOR TO ROOF LEVEL						
B.3.5.2.9	Columns	t	0.25				
B.3.5.2.10	Beams & Slab	t	1.98				
B.3.5.2.11	Concrete Ledge	t	0.08				
	SUNDRIES 225x150mm lintels in Grade 25 concrete including necessary reinforcement and form work for opening in doors /windows.						
B.3.6.1.1	In First floor level	m	20.00				
B.3.6.1.2	In Second floor level	m	15.00				
	225x75mm sill in grade 25 concrete including necessary reinforcement and form work.						
B.3.6.2.1	In First floor level	m	15.00				
B.3.6.2.2	In Second floor level	m	15.00				
B.3.7	CHEMICAL ANCHORING						
	Chemical Anchoring works using T10 (including drilling, cleaning, injecting chemicals and rebars) in Slab						
B.3.7.1.1	In First floor level	nr	225.00				
B.3.7.1.2	In Second floor level	nr	60.00				
B.3.7.2	Chemical Anchoring works using T12 (including drilling, cleaning, injecting chemicals and rebars) in Beam						
B.3.7.2.1	In First floor level	nr	10.00				
B.3.7.2.2	In Second floor level	nr	10.00				
B.3.7.3	Chemical Anchoring works using T16 (including drilling, cleaning, injecting chemicals and rebars) in Column						
B.3.7.3.1	In First floor level	nr	16.00				
B.3.7.4	Chemical Anchoring works using T20 (including drilling, cleaning, injecting chemicals and rebars) in Column						
B.3.7.4.1	In First floor level	nr	4.00				
B.3	TOTAL CARRIED TO	SUMMARY					

BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	te	Amo	ount
				Rs.	Cts.	Rs.	Cts.
B.4	MASONRY WORKS						
	Rate is included for lifting, handling, weighting all rough and fair cutting, plumbing angles, normal straight cutting, forming rebated reveals and raking out joints for plastering.	Note					
B.4.1	BRICK WORK						
	Brick walls in common bricks with 1:5 cement & sand mortar for walls						
	FIRST FLOOR TO SECOND FLOOR						
B.4.1.2	225mm thick.	m^2	125.00				
B.4.1.2	112mm thick.	m^2	20.00				
	SECOND FLOOR TO ROOF LEVEL						
B.4.1.3	225mm thick.	m^2	132.00				
B.4.1.4	112mm thick.	m^2	10.00				
B.4.2	RUBBLE WORK						
	Up to DPC Level						
B.4.2.1	150x225mm random rubble masonry in cement and sand(1:5)mortar in foundations/ retaining walls.						
B.4.2.1.1	Rubble foundation of Lab , etc	m^3	2.00				
B.4	TOTAL CARRIED TO	SUMMARY					
B.5	WATER PROOFING						
	Contractor shall submit five years guarantee for water proofing material and workmanship in the name of the Employer in an acceptable format						
	Rate shall include for the following, unless specified otherwise by the specifications or measured separately:	Note					
	(a) Applying of water proofing to walls up to a minimum, height of 1500 mm from the floor.	Note					
	(b) Applying 1:3 cement sand rendering protective screed thickness not less than 1.2cm, angle fillets, surface finished with smooth neat cement finish and maintaining of necessary slopes for the floors.	Note					

BILL NO. B: CONSTRUCTION OF LABORATORY

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ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	ite	Amo	ount
				Rs.	Cts.	Rs.	Cts.
	(c) Extra over for apply water proofing around pipe and pipe fittings.	Note					
B.5.1	Water proofing in floors / walls flexible cementation water proofing product such as K11 flex or equivalent . All as per the manufacture's specification & technical literature (Screed for tiling will act as a protective screed for water proofing.)						
B.5.1.1	In First floor level	m ²	25.00				
B.5.1.2	In Second floor level	m^2	25.00				
B.5.2	Supply all the materials and laying of water proofing and heat proofing materials as per the details drawings in Roof slab areas. Rate shall be included for necessary leveling & protective screed, GI mesh, comprising with expansion joint at 3 m interval (10x25mm grove filled with mastic filler) Rate shall include for relevant arrangement or proper connection to rain water drainage outlets and filling with mastic sealant where necessary. All the work shall be carried out to Engineer's satisfaction level.		60.00				
B.5	TOTAL CARRIED TO	SUMMARY					
B.6	ALUMINIUM WORK						
	For the full description of materials and workmanship refer to the relevant sections of Specification of works, Pricing Preambles and the drawings.	Note					
	Aluminum / Glazed Doors Sizes given in the description of items are nominal sizes. The contractor shall visit the site and take all necessary spot measurements to determine the actual sizes of openings before fabricating the units. Work shall extrusion to be of "Alumex" or approved equivelant manufacturer.	Note					
	All profiles shall be Powder coated	Note					
	Stainless steel hinges & accessories (316 SS) and approved quality door locks etc. shall be provided.	Note					
	Both sides finished 4mm thick aluminum composite panels shall be used for door panels as shown on the drawings.	Note					

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BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	ite	Amo	ount
				Rs.	Cts.	Rs.	Cts.
	Rates shall included for:						
	All ironmongery to be heavy duty high quality fittings with minimum 5 years warranty	Note					
i i	Contractor shall submit detailed shop drawings and fabricated samples of units of each type illustrating all construction details for prior approval of the architect.	Note					
ŀ	DOORS & WINDOOWS						
B.6.1	<u>Doors</u>						
1	Supplying all materials, fabricating and fixing of Double Door Type D1 (Aproxi Size 1500mm × 2100 mm & 1500mm × 450 mm fix glass on top) 76 mm wide powder coated Aluminium section bar framed glazed and paneled swing type double sash door with 100mm wide Aluminium door frame, glazing with 5mm thick plain glasses and paneling with 4mm thick double sided cladding sheets. Rate to include for necessary rubber beadings, wool felts, mortice type door lock with duplicate keys, flush bolts, Stainless Steel hinges 4nr ,barrel bolt 300mm high, S/S 'C' shaped door handle (pair) made of 1.5mm thick 25mm dia .and other necessary accessories						
B.6.1.1.1	In First floor level	nr	1.00				
B.6.1.1.2	In Second floor level	nr	1.00				
	Supplying all materials, fabricating and fixing of Single Door Type D2 (Aproxi Size 900mm × 2100 mm) 76 mm wide powder coated Aluminium section bar framed glazed and paneled swing type single sash door with 100mm wide Aluminium door frame, glazing with 5mm thick plain glasses and paneling with 4mm thick double sided cladding sheets. Rate to include for necessary rubber beadings, wool felts, mortice type door lock with duplicate keys, flush bolts, Stainless Steel hinges 4nr and other necessary accessories. Rate including 300mm high, S/S 'C' shaped door handle (pair) made of 1.5mm thick 25mm dia .						
B.6.1.2.1	In First floor level	nr	3.00				
	In Second floor level	nr	3.00				

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BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	ate	Amo	ount
				Rs.	Cts.	Rs.	Cts.
B.6.1.3	Supplying all materials, fabricating and fixing of Single Door Type D3 (Aproxi Size 750mm × 2100 mm) 76 mm wide powder coated Aluminium section bar framed fully paneled swing type single door with 100mm wide Aluminium door frame, and paneling with 4mm thick double sided cladding sheets. Rate to include for necessary rubber beadings, wool felts, flush bolts, Stainless Steel hinges 4nr,door handle, barral bolts and other necessary accessories.						
B.6.1.3.1	In First floor level	nr	1.00				
B.6.1.3.2	In Second floor level	nr	1.00				
B.6.1.4	Supplying all materials, fabricating and fixing of Double Door Type D4 (Aproxi Size 1200mm × 2100 mm) 76 mm wide powder coated Aluminium section bar framed glazed and paneled swing type double sash door with 100mm wide Aluminium door frame, glazing with 5mm thick plain glasses and paneling with 4mm thick double sided cladding sheets. Rate to include for necessary rubber beadings, wool felts, mortice type door lock with duplicate keys, flush bolts, Stainless Steel hinges 4nr ,barrel bolt 300mm high, S/S 'C' shaped door handle (pair) made of 1.5mm thick 25mm dia .and other necessary accessories						
B.6.1.4.1	In First floor level	nr	4.00				
B.6.1.4.2	In Second floor level	nr	2.00				
B.6.1.5	Supplying all materials, fabricating and fixing of Single Door Type D5 (Aproxi Size 800mm × 2100 mm) 76 mm wide powder coated Aluminium section bar framed glazed and paneled swing type single sash door with 100mm wide Aluminium door frame,, glazing with 5mm thick plain glasses and paneling with 4mm thick double sided cladding sheets. Rate to include for necessary rubber beadings, wool felts, mortice type door lock with duplicate keys, flush bolts, Stainless Steel hinges 4nr and other necessary accessories. Rate including 300mm high, S/S 'C' shaped door handle (pair) made of 1.5mm thick 25mm dia.						

BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	te	Amo	unt
				Rs.	Cts.	Rs.	Cts.
B.6.1.5.1	In First floor level	nr	1.00				
B.6.1.5.2	In Second floor level	nr	1.00				
	Sliding Door						
	Supply all material, fabricate & fixing paneling of Sliding Door Type D6 (Aproxi Size 900mm × 2100 mm) with 4mm Aluminium composite sheet of glazed and paneled sliding door (single sash door) using 40mm single sliding door series. Rate include for Aluminium Door handle, Sliding Door Lock, Adjustable Wheels etc		100				
	In Second floor level	nr	1.00				
B.6.2	Windows						
	Sliding Windows						
B.6.2.1	Supplying all materials, fabricating and fixing of window type W1, (Aproxi: size 1200 × 1200mm & 1200mm × 450 mm fix glass on top) window 70 mm wide Powder coated Aluminium framed sliding type glazed window , glazing with 5mm thick clear glasses. Rate to include for necessary Adjustable Sliding Wheels, stays, window locks, rubber beadings and other necessary accessories.						
B.6.2.1.1	In First floor level	nr	1.00				
B.6.2.2	Supplying all materials, fabricating and fixing of window type W2, (Aproxi: size 1800 × 1200mm & 1800mm × 450 mm fix glass on top) window 70 mm wide Powder coated Aluminium framed sliding type glazed window , glazing with 5mm thick clear glasses. Rate to include for necessary Adjustable Sliding Wheels, stays, window locks, rubber beadings and other necessary accessories.						
B.6.2.2.1	In First floor level	nr	2.00				

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BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	te	Amo	ount
				Rs.	Cts.	Rs.	Cts.
B.6.2.3	Swing Type Window Supplying all materials, fabricating and fixing of						
	window type W1, (Aproxi: size 1200 × 1200mm & 1200mm × 450 mm fix glass on top) 41 mm wide Powder coated Aluminium framed side hung type glazed window, glazing with 5mm thick clear glasses. Rate to include for necessary 304 Stainless Steel hinges, stays, window locks, rubber beadings and other necessary accessories.						
B.6.2.3.1	In First floor level	nr	2.00				
B.6.2.3.2	In Second floor level	nr	4.00				
B.6.2.4	Supplying all materials, fabricating and fixing of window type W2, (Aproxi: size 1800 × 1200mm & 1800mm × 450 mm fix glass on top) 41 mm wide Powder coated Aluminium framed side hung type glazed window, glazing with 5mm thick clear glasses. Rate to include for necessary 304 Stainless Steel hinges, stays, window locks, rubber beadings and other necessary accessories.						
B.6.2.4.1	In First floor level	nr	2.00				
B.6.2.4.2	In Second floor level	nr	3.00				
	Fan Light						
B.6.2.5	Supplying all materials, fabricating and fixing of window type "FL 01" (Aproxi: size 600 × 850mm & 600mm × 300 mm louver on top) 41 mm wide Powder coated Aluminium framed ,top hung louver panel with fanlight. glazing with 5mm thick clear glasses. Rate to include for necessary, stays, window locks, rubber beadings and other necessary accessories.						
B.6.2.5.1	In First floor level	nr	1.00				
B.6.2.5.2	In Second floor level	nr	1.00				

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BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	ite	Amo	unt
				Rs.	Cts.	Rs.	Cts.
B.6.3 B.6.3.1	Door close Supplying of imported, heavy duty door closer of approved quality (New Star or equivalent with One year guarantee) and fixing to doors including all connecting works and making good after completion. (Guarantee Card should be provided prior to installation)						
B.6.3.1.1	In First floor level	nr	6.00				
B.6.3.1.2	In Second floor level	nr	6.00				
B.6.3.2	Supply & fixing of sand blast sticker for glass partition & glass door. (If necessary)						
B.6.3.2.1	In First floor level	m^2	25.00				
B.6.3.2.2	In Second floor level	m^3	25.00				
B.6.4	Partition						
B.6.4.1	Supplying all materials, fabricating and fixing of powder coated Aluminium framed glazed and paneled partition, using 76mm wide 1.2mm thick shop front section glazing with 5mm thick clear glasses and paneling with two layers of 4mm thick Aluminium Composite sheets for both sides. Rate to include for necessary rubber beadings and other necessary accessories with fixing arrangement to floor and ceiling/ slab soffit.						
B.6.4.1.1	In First floor level	m^2	90.00				
B.6.4.1.2	In Second floor level	m^2	110.00				
B.6.4.2	Supplying all materials, fabricating and fixing of powder coated Aluminium framed fully paneled partition, using 76mm wide 1.2mm thick shop front section paneling with two layers of 4mm thick Aluminium Composite sheets for both sides. Rate to include for necessary rubber beadings and other necessary accessories with fixing arrangement to floor and ceiling slab soffit. (Changing Room)						
B.6.4.2.1	In First floor level	m^2	10.00				
B.6	TOTAL CARRIED TO	SUMMARY					

BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	te	Amo	ount
				Rs.	Cts.	Rs.	Cts.
B.7	STRUCTURAL METAL WORK For the full description of materials and workmanship refer to the relevant sections of Specification of works, Pricing Preambles and the drawings.						
	All steel to be grade 4.6 according to BS 5950 Selected steel frames to be hot dip galvanized according to BS 729 after fabrication.	Note					
	All the steel members shall be painted with approved marine painting system (Sigma or equivalent)						
	Rate shall be included for all accessories	Note					
	Rate shall include for machine drilled bolt holes, bolts, rag bolts, nuts and washers, cleats, shoe and gusset plates, base plats, "U" bolts and all other necessary connections.	Note					
	Rate shall include for submission of shop drawings, shop fabrication, etc. subject to the approval of the Engineer, transport to the site and erection in the final position, and for all site welding, drilling, splay cutting, notching etc.	Note					
	SECOND FLOOR TO ROOF LEVEL						
B.7.1	Supplying fabricating, erecting and fixing of steel roof truss using "L" angle (40x40x5mm, 25x25x5mm), including base plates, sole plates, anchor bolts, washers,etc. as per detail drawing.	t	0.45				
B.7.2	Supplying & fixing of C 100-20 LYSAGHT or equivalent high strength purling at 1200mm C/C for Roof as per detail drawing.	m	150.00				
B.7.3	12mm dia galvanized tie rods including 16mm dia nut and bolts with spring washers as per detail drawing	m	50.00				
B.7	TOTAL CARRIED TO	SUMMARY					

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BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	te	Amo	ount
				Rs.	Cts.	Rs.	Cts.
B.8	ROOF AND ROOF PLUMBING WORK						
	For Zn/Al Roof Covering to be Colour Bond Zinc Alum roofing sheets, Type LYSAGHT TRIMDEK or approved equivalent, with a total coated thickness not less than 0.47 mm. and	Note					
	coating class AZ 150 (150g/m² of Zinc Aluminum coating on base metal)						
	Rate shall be included for supply & install complete on site with all accessories, fixings, ridging, & flashing for water tightness, all complete as per detail drawings.						
B.8.1	Colour of the roofing sheets shall be specified by the Consultant / client. Roof covering						
B.8.1.1	Supplying & fixing of Roof covering with 0.47mm thick Zn/Al sheets on steel frame work. Frame work shall be measured separately.	m²	110.00				
B.8.1.2	Supply and laying bubble film, double side aluminium foil (Approximate 0.4mm thick) with supportive mesh, as per manufactures certifications.	m ²	100.00				
B.8.1.3	Supplying and fixing of 0.47mm Zn/Al Ridge /Hip cap.	m	15.00				
B.8.1.4	Supplying & fixing of 0.47mm thick , 470mm girth Zn/Al Colour Bonding Flashing fixed with necessary accessories.	m	15.00				
B.8.1.5	Supplying and fixing of coloured 0.47mm thick, 470mm girth (approximately) steel square eave gutters with Zinc aluminium brackets, screws at 300mm intervals including all necessary accessories.	m	25.00				
B.8.1.6	Supplying and fixing coloured square type AZ150(150g/m2 of Zinc Aluminum coating on base metal) , 0.47 mm thick, 0.4m girth (approximately) steel down pipes (Lysaght or equivelant) with brackets, screws at engineer's instruction including all necessary accessories.	m	80.00				
B.8.2	Valance board						
B.8.2.1	Supplying & fixing of 0.47mm thick , 300mm with Zn/Al Colour Bonding valance board on steel frame work with necessary accessories.	m	40.00				
B.8	TOTAL CARRIED TO S	UMMARY					

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BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	te	Amo	ount
				Rs.	Cts.	Rs.	Cts.
B.9	FLOOR / WALL / CEILING FINISHES						
	FLOOR FINISHES						
	To approved design and Colour joint and point in water proofing grout to match on and including 20mm thick cement and sand (1:3) screed bedding level and to slopes $\leq 15^{\circ}$ from horizontal. Tile laying using for sutable tile adasive.	Note					
	Tile bed act as protective screed for water proofing and will not measured separately under waterproofing work section)	Note					
B.9.1	Supply and laying size 600x600mm Non skid Homogeneous porcelain floor tiles (Rocel) of approved quality and colour , fixed with 3mm straight joints in both ways including all angles corners and 1:3 cement sand bedding and pointed with tile grout to match the tile in Upper Floor wards area for damaged tiles . (tiles colour & quality shall be subject to the approval of the Engineer) Rate including skirting where necessary.						
B.9.1.1	In First floor level	m ²	120.00				
B.9.1.2	In Second floor level	m^2	125.00				
B.9.2	Supplying and fixing of 400mm x 400mm locally manufactured Homogeneous Vitreous Porcelain semi glazed/matt finished floor tiles to toilet floors all specials including 20mm thick 1:3 cement sand bedding and finished with tile grout to match the tile.						
B.9.2.1	In First floor level	m^2	6.00				
B.9.2.2	In Second floor level	m^2	6.00				

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BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	ite	Amo	ount
				Rs.	Cts.	Rs.	Cts.
B.9.3	WALL FINISHES						
	<u>Granite</u>						
B.9.3.1	Supply and laying 1" thick of Granite paving finished with bull nose edge of an approved colour and quality for the work top including pointing with matching colour tile grout.as per instruction by Engineer. Payment only theoretical area not mention sink cut area & etc, contractor should include every cutting charges for the rate, Rate shall include for 20mm thick cement sand (1:3)screed bedding on concrete floors. As per the instruction of the Engineer.						
B.9.3.1.1	In First floor level	m^2	6.00				
B.9.3.1.2	In Second floor level	m^2	4.00				
B.9.3.2	Supply and laying size 200mm x400 mm glazed ceramic wall tiles (Lanka wall Tile) for toilets of approved quality and colour, fixed with 3mm straight joints in both ways including all angles corners and 1:3 cement sand bedding and pointed with water proofing tile grout to match the tile.						
B.9.3.2.1	In First floor level	m ²	16.00				
B.9.3.2.2	In Second floor level	m^2	16.00				
B.9.3.3	Supply and laying size 600x600mm locally manufactured Fully vitrified Full Body Solid - Matt glazed Porcelain tile (Chemical Resistance) of approved quality and colour , fixed with 3mm straight joints in both ways including all angles corners and 1:3 cement sand bedding and pointed with tile grout to match the tile in ledge area . (tiles colour & quality shall be subject to the approval of the Engineer) Rate including skirting where necessary.						
B.9.3.3.1	In First floor level	m^2	18.00				
B.9.3.3.2	In Second floor level	m^2	8.00				

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ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	te	Amo	ount
				Rs.	Cts.	Rs.	Cts.
B.9.4	PLASTERING						
B.9.4.1	16mm thick cement & sand (1:5) plaster finished semi rough with wood float on external faces, on brick / concrete surfaces.						
B.9.4.1.1	In Ground Floor Level	m^2	35.00				
B.9.4.1.2	In First floor level	m^2	125.00				
B.9.4.1.3	In Second floor level	m^2	130.00				
B.9.4.2	16mm thick cement & sand (1:5) plaster finished smooth with wood float on internal faces on brick / concrete surfaces.						
B.9.4.2.1	In First floor level	m^2	140.00				
B.9.4.2.2	In Second floor level	m^2	145.00				
B.9.5	CEILING FINISHES						
B.9.5.1	Supplying and installation of 3mm Cement Fibre Ceiling sheets of 600mmX600mmX14mm panels in white colour, (Calcium Cillicate) grid system with main T at 600mm intervals suspended with Gauge 14 GI adjustable hooks to soffit of slab/ timber framework of roof.						
B.9.5.1.1	In Second floor level	m^2	85.00				
B.9	TOTAL CARRIED TO	SUMMARY					

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ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	ite	Amo	unt
				Rs.	Cts.	Rs.	Cts.
B.10	PAINTING						
	Rate shall include for supply, preparation of surface cleaning down, smoothing, knotting, stepping etc. protection of floors and fitting, removing & replacing door and window, furniture, and cleaning windows etc. upon completion.	Note					
	Paint shall be from CIC or equivalent approved manufacturer to the approval of the Architect & Engineer.	Note					
	DPC TO FIRST FLOOR LEVEL						
B.10.1	Prepare and apply two coat of <i>elastomeric primer</i> and two coats of weather shield as per manufacture and to the design to Engineer's satisfaction.						
B.10.1.1	In Ground Floor Level	m^2	40.00				
B.10.1.2	In First floor level	m^2	125.00				
B.10.1.3	In Second floor level	m^2	130.00				
B.10.2	Prepare and apply one coat of alkali resistant primer and two coats of emulsion paint as per Manufacturer's specification. Rate shall be included for surface preparation with approved type skim coat.						
	In First floor level	m ²	140.00				
B.10.2.2 B.10.3	In Second floor level Painting the soffit/side of the roof slab, beams, with one coat of <i>alkali resistant</i> primer and two coats of Emulsion .Rate is included for preparing the surface with skim coat.	m ²	145.00				
B.10.3.1	In Ground Floor Level	m^2	195.00				
B.10.3.2	In First floor level	m^2	200.00				
B.10.3.3	In Second floor level	m ²	100.00				
B.10	TOTAL CARRIED TO	SUMMARY					

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ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Ra	te	Amo	ount
				Rs.	Cts.	Rs.	Cts.
B.11	PLUMBING / SANITARY INSTALLATIONS						
	Rates for all pipes shall include for pipe fittings such as bends, tees, reducers, sockets, cleaning eye etc. and all fittings shall be molded fittings	Note					
	Rates shall include for screws ,nails, pipe hooks, saddles, brackets, sockets, connections, lagging short lengths, back nuts, nipple joints, concrete blocks and the like and all holes chasings etc. and making good in other trades such as plaster and painting	Note					
	All P.V.C pipes shall be National, S-Lon, Anton or equivalent manufacture in suitable type appropriate for the purpose	Note					
	All pipes to be fixed to wall, soffit of slabs or ceiling etc. shall be in suitable gauge aluminum clips	Note					
B.11.1	WATER SUPPLY SYSTEM						
	Supplying and laying of Type 1000 . PVC pipes including all specials.						
B.11.1	-do- 20mm dia.						
B.11.1.1	In First floor level	m	20.00				
B.11.1.2	In Second floor level	m	20.00				
B.11.2	-do- 25mm dia.						
B.11.2.1	In First floor level	m	10.00				
B.11.2.2	In Second floor level	m	10.00				
B.11.3	-do- 32mm dia.						
B.11.3.1	In First floor level	m	15.00				
B.11.3.2	In Second floor level	m	15.00				
B.11.4	-do- 40mm dia.						
B.11.4.1	In First floor level	m	5.00				
B.11.4.2	In Second floor level	m	5.00				
	SUPPLYING & FIXING OF BRASS GATE VALVES						
B.11.2	-do- 20mm dia.						
B.11.2.1	In First floor level	nr	1.00				
B.11.2.2	In Second floor level	nr	4.00				

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BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Rate		Amo	unt
				Rs.	Cts.	Rs.	Cts.
B.11.3	-do- 32mm dia.						
B.11.3.1	In First floor level	nr	1.00				
B.11.3.2	In Second floor level	nr	1.00				
	SOIL & WASTE WATER DISPOSAL SYSTEM						
B.11.5	Supplying and laying of T600. UPVC pipes including all specialsdo- 110mm dia.						
B.11.5.1	In Ground Floor -Diverting Existing waste lines	m	20.00				
B.11.5.2	In First floor level	m	5.00				
B.11.5.3	In Second floor level	m	5.00				
B.11.6	-do- 63mm dia.						
B.11.6.1	In Ground Floor -Diverting Existing waste lines	m	10.00				
B.11.6.2	In First floor level	m	5.00				
B.11.6.3	In Second floor level	m	5.00				
B.11.7	-do- 50mm dia.						
B.11.7.2	In First floor level	m	3.00				
B.11.7.3	In Second floor level	m	3.00				
B.11.8	-do- 40mm dia.						
B.11.8.1	In First floor level	m	5.00				
B.11.8.2	In Second floor level	m	5.00				
B.11.9	Pressure test for Water Supply and Disposal networks	Item					
B.11.10	Catch Pit Supply all material and construct water sealed catch pit in Grade25 (20) reinforced concrete. Rate shall include excavation, backfilling, remove surplus earth away from site, concrete for 100 mm thick base slab and 100 mm thick walls, reinforcements with T10@150 c/c both ways r/f and RCC cover slab, smooth formworks to and screed concreting, exposed surfaces finished with cement reandering as per the detail drawing.						
B.11.10.1	For size of 450 x 450 (Internally) (Depth up to $0.45m$)	nr	1.00				

BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

ITEM NO.	. ITEM DESCRIPTION	UNIT	QTY.	Ra	ite	Amo	ount
				Rs.	Cts.	Rs.	Cts.
	Man Hole Construction of Reinforced Concrete (C25) Man Hole internal size 600 x 600mm average depth 600mm with 100mm thick base and wall with necessary form work & reinforcements with T10@150 c/c both ways r/f and RCC cover slab. Rate shall be included for excavation with working space, backfilling, screed concrete, make opening to connect the pipes to complete the work as per the detail drawing		1.00				
B.11.12	SANITORY FITTINGS AND ACCESSORIES						
	Supply and install sanitary fittings and accessories complete with Taps, flexible connections, angle valves, WC connectors, anchor bolts, brass screws and sealant,etc.	Note					
	Sanitary fittings, taps & accessories should be "ROYAL CEREMIC" OR equivalent.	Note					
	Unless other wise stated all sanitary accessories shall be chromium plated brass / Stainless Steel or ceramic approved by the Engineer.	Note					
B.11.12	Supply and installation of "Elements Aqua" Water closet suit consisting of pedestal pan with 'P' trap, close coupled flushing cistern including all accessories complete to working order to Engineers approval.						
B.11.12.1	In 1st floor level	nr	1.00				
B.11.12.2	In 2nd Floor level	nr	1.00				
B.11.13	Supplying and fixing of Pedestal type wash basin 575x450mm "Urban D" with angle valve, flexible hose connection, (Water Tec) Plastic pillar tap, rubber plug and chromium plated chain waste, bottle trap fixed as including water supply and waste water connection all complete to working order.						
B.11.13.1	In 1st floor level	nr	1.00				
B.11.13.2	In 2nd Floor level	nr	1.00				

BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Rate		Amo	unt
				Rs.	Cts.	Rs.	Cts.
B.11.14	Supplying and fixing of vanity top Lab basin <i>Rocell</i> "Xenon basing" 515mmx380mmx200mm (effective area) with angle valve, flexible hose connection, Elbow tap, rubber plug and chromium plated chain waste, bottle trap fixed as including water supply and waste water connection all complete to working order.						
B.11.14.1	In 1st floor level	nr	1.00				
B.11.14.2	In 2nd Floor level	nr	3.00				
B.11.15	S/F Stainless Steel sink-Single Bowl Single Drain - Indian (Overall size 915x760mm) with waste, cuplin and all fixtures and Chromium plated swan neck piller cock fix and complete to working order.						
B.11.15.1	In 2nd Floor level	nr	1.00				
B.11.16	Supply & fixing of plastic bidet spray with plastic angle valve .(Water tec)						
B.11.16.1	In 1st floor level	nr	1.00				
B.11.16.2	In 2nd Floor level	nr	1.00				
B.11.17	Supplying & fixing of 600mm × 750 mm frameless mirror above the wash basin walls						
B.11.17.1	In 1st floor level	nr	1.00				
B.11.17.2	In 2nd Floor level	nr	1.00				
B.11.18	Supply & fixing of 20 mm Chromium plated bib taps .	nr					
B.11.18.1	In 1st floor level	nr	1.00				
B.11.18.2	In 2nd Floor level	nr	1.00				
B.11.19	Supply & fixing of Chromium plated toilet paper holder with necessary plugs and screws.						
B.11.19.1	In 1st floor level	nr	1.00				
B.11.19.2	In 2nd Floor level	nr	1.00				
B.11.20	Supply & fixing of S/S Hand Wash Dispenser (800ml) with all necessary fixing accessories.						
B.11.20.1	In 1st floor level	nr	1.00				
B.11.20.2	In 2nd Floor level	nr	1.00				

BILL NO. B: CONSTRUCTION OF LABORATORY

BILL OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	Rate		Rate Amou	
				Rs.	Cts.	Rs.	Cts.
B.11.21	Supplying & Fixing of 150 mm × 150 mm PVC floor gullies with water trap and stainless steel foot rest grating.						
B.11.21.1	In 1st floor level	nr	1.00				
B.11.21.2	In 2nd Floor level	nr	1.00				
B.11.22	Supplying & Fixing of Chromium plated towel rail of approved quality.						
B.11.22.1	In 1st floor level	nr	1.00				
B.11.22.2	In 2nd Floor level	nr	1.00				
B.11.23	Supplying and fixing of 150 mm dia chromium plated shower with other necessary accessories including brass conseal valve and water supply and all complete to working order						
B.11.23.1	In 1st floor level	nr	1.00				
B.11.23.2	In 2nd Floor level	nr	1.00				
B.11.24	Supply & fixing of Chromium plated double Rob hook with all necessary fixing accessories.						
B.11.24.1	In 1st floor level	nr	1.00				
B.11.24.2	In 2nd Floor level	nr	1.00				
B.11	TOTAL CARRIED TO	SUMMARY					
B.12	MISCELLANEOUS WORK						
B.12.1	Any Other related work for above satisfactorily completion and work in order.						
i	Allow Sum for Supply & Fixing of Dilay Tank	PV sum				200,	000.00
ii	Allow Sum for construction of Staircase & Handrail	PV sum				500,	00.00
iii	Shifting & diverting of Manholes & Existing Drain lines.	PV sum				300,	000.00
B.12	TOTAL CARRIED TO	SUMMARY				1,000,	00.00

BILL NO. C: ELECTRICAL & MECHANICAL WORKS

BILL OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				Rs. Cts.	Rs. Cts.
С	ELECTRICAL WORKS Rates in Bill of Quantities shall include all necessary materials (Cables, conduits, PVC sunk box, bulbs, switches etc.) and labour required to complete the electrical installation to good working order.				
	All types of fittings, materials, painting and finishes shall be approved by the Engineer prior to installation.	Note			
	The whole installation shall be carried out according to IEE wiring regulations Latest edition.	Note			
C.1	Power Cables				
	Supply and installation in PVC conduits/pipes, of 600/1000 V, PVC insulated, PVC sheathed copper conductor Cable.				
	Rate to include for supply and installation of all required PVC conduits/pipes of required size and supply and installation of cable terminals at both ends of the cable.				
	Rate shall be per linear meter length of individual cable.	Note			
C.1.1	4-core 25 sq.mm Cu Cable (Incoming to MDB)	m	70		
C.1.2	4-core 6 sq.mm Cu Cable (From MDB CU-1F/2F)	m	15		
C.1.3	2-core 6 sq.mm Cu Cable	m	10		
C.2	(From MDB to CU-GF) Earth Cable				
	Supply and installation in PVC conduits/pipes of PVC insulated, copper conductor Earth Cable.	Note			
C.2.1	1-core 16 sq.mm Cu Cable	m	15		
C.2.2	1-core 6 sq.mm Cu Cable	m	25		
C.3	Earthing				
	Supply and installation of copper clad steel earth electrodes and copper earth conductors and provide building earth with earth resistance complying with the regulations.				
C.3.1	16mm dia 1.2m long copper bonded steel earth electrode driven in to the earth with clamp connection to earth conductor and accessories.		1		

BILL NO. C: ELECTRICAL & MECHANICAL WORKS

BILL OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				Rs. Cts.	Rs. Cts.
C.3.2	In-situ concrete Earthing pit of 300 mm(L) x 300 mm(W) x 200 mm(D) and with a 50 mm thick removable concrete lid.		1		
C.4	Consumer Units/MDB				
	Supply and installation of single/Three phase and neutral wall mounted Sunk type Consumer Units (CU) complete with plastic/Metal enclosure and cover.				
	CU shall include Incoming Isolating Switch/MCB, RCDs, outgoing MCBs, busbars, terminals, mounting rails and all required accessories.				
	Make of MCBs RCDs and Isolator shall be European make or equivalent approved by Engineer.	Note			
C.4.1	MDB				
	01 No 80A, 4P MCCB 25kA Breaking capacity (adj type)	nr	1		
	02 No 40A, 4P MCB				
	01 No 20A, 4P MCB				
	02 No 16A, 2P MCB				
	01 Set of 100A Cu Bus bars ,Accessories,shunt,cts.				
	Other Accessories				
	01 No. of Surge Protective device (MOV type, 4 pole, Nominal Voltage shall be 480V, Impulse discharge current (Iimp) >=12.5kA, in>30KA,Total Discharge Current (I TOTAL shall be greater than 50kA and Let through voltage shall be less than 1.3kV)				
	Digital Power Analyzer. Adjustable Phase failure relay.				
	All required CTs, 3 phase indicator lights for incoming Powder Coated Enclosure.	Note			
C.4.2	Consumer Units				
	Supply and installation of single/Three phase and neutral wall mounted Sunk type Consumer Units (CU) complete with Metal enclosure and cover.				
	CU shall include Incoming Isolating Switch/MCB, RCDs, outgoing MCBs, busbars, terminals, mounting rails and all required accessories.				
	Make of MCBs RCDs and Isolator shall be European make or equivalent approved by Engineer.	Note			

BILL NO. C: ELECTRICAL & MECHANICAL WORKS

BILL OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				Rs. Cts.	Rs. Cts.
C.4.2.1	CU-1F/2F	nr	2		
	1 No., 4 Pole, 40A ,MCB				
	3 Nos., 2 Pole, 40A,MCBs				
	3 Nos., 2 Pole, 40A, 30mA, RCDs				
	27 Nos., 1 Pole, 6A/16A/20A , MCBs				
	01 Set of 40A Cu Bus bars.				
	01 Set of Three phase indicator lights.				
C.4.2.2	Powder coated Steel Enclosure. CU-GF	nr	1		
	1 No., 2 Pole, 20A ,MCB				
	1 Nos., 2 Pole, 40A, 30mA, RCDs				
	08 Nos., 1 Pole, 6A/16A/20A , MCBs				
	01 Set of 40A Cu Bus bars.				
	Plastic Enclosure.				
C.4.2.3	Supply and installation of 80A,4P(Adj) MCCB inside Powdercoated Enclosure.	nr	1		
C.5	Power Socket Outlets				
	Make of socket outlets shall be SLS certified approved by Engineer.	Note			
	Rate to include for all cables, conduits, conduit boxes, sunk box and all accessories.	Note			
C.5.1	Supply and installation, including 2.5 mm2, Cu/PVC/PVC + 2.5 mm2, Cu/PVC Earth wiring (radial circuit), 13A switched, shuttered, single socket outlet complying with BS 1363.		75		
C.5.2	Supply and installation, including 2.5 mm2, Cu/PVC/PVC + 2.5 mm2, Cu/PVC wiring (Separate radial circuit for AC),13A switched, shuttered, single socket outlet complying with BS 1363.		12		
C.5.3	Supply and installation, including 2.5 mm2, Cu/PVC/PVC + 2.5 mm2, Cu/PVC wiring (Ring Circuit),13A switched, shuttered, single socket outlet complying with BS 1363.		30		
C.5.4	Supply and installation, including 2.5 mm2, Cu/PVC/PVC + 2.5 mm2, Cu/PVC wiring (radial circuit),13A switched, shuttered, single socket outlet complying with BS 1363 & 10A 1 gang switch to control Exhaust fan.		1		

BILL NO. C: ELECTRICAL & MECHANICAL WORKS

BILL OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C.6	Wiring of Light Points and Fans			Rs. Cts.	Rs. Cts.
	Wiring includes supply of required cables and accessories, flush switch and all other required materials.				
	Make of the flush switch shall be SLS certified approved by Engineer.	Note			
C.6.1	Light Point Wiring				
	Wiring (including supply of all material & 10A switch)	nr	72		
	of the light point using approved type 1.5 mm ² Cu/PVC/PVC + 1.0 mm2, Cu/PVC Earth cables drawn through securely fixed concealed PVC conduits.				
C.6.2	Fan point wiring				
	Wiring (including supply of all material & 10A switch)	nr	1		
	of the light point using approved type 1.5 mm ² Cu/PVC/PVC 1C + 1.0 mm2, Cu/PVC Earth cables drawn through securely fixed concealed PVC conduits.				
C.7	Lights & Fittings				
	Lights fittings shall be of the highest quality and each type of lights fitting shall be subject to the approval of the Engineer.				
	LED Shall be European equivalent make approved by Engineer. LED should have minimum 2 year Warranty for defects.				
C.7.1	Supply and installation of soffit mounted 6W LED lamp with opal diffuser.	nr	2		
C.7.2	Supply and installation of soffit mounted 12W LED lamp with opal diffuser.	nr	40		
C.7.3	Supply and installation of soffit mounted 18W LED lamp with opal diffuser.	nr	30		
C.7.4	Supply and installation of 1400mm sweep ceiling fan Containing Aluminium Blades complete with fan regulator, mounting hook and attachments. Guarantee cards shall be provided from accredited agent and approved by the Engineer before placing the order. (Recommended brands are Usha,Telesonic,Bajaj or eq)		1		

BILL NO. C: ELECTRICAL & MECHANICAL WORKS

BILL OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
C.7.5	Supply and installation of 300x300 Wall mounted exhaust fan complete with all other accessories required. Guarantee cards shall be provided from accredited agent before the installation. KDK or equivalent make approved by the engineer.(Rates to be given including Civil work)		1		
C.8	Test certificate & As built drawing				
C.8.1	Testing the installation of the system and submit a certificate by a Chartered Electrical Engineer.	Item	1		
C.8.2	Provide 3 sets of A3 size "As Built Drawings" for the Entire Electrical installation.	Item	1		
C.9	Data Network System				
C.9.1	24 Port, 10/100 Mbps Rack mountable Network Switch.	nr	1		
C.9.2	24 port patch panel U/UTP Copper/Modular with keystone modules (CAT 6)	nr	1		
C.9.3	Management Panel	nr	1		
C.9.4	Single face plates (with CAT 6 keystone modules)	nr	15		
C.9.5	RJ 45 jacks	nr	30		
C.9.6	Laying 4 pair U/UTP Cable (CAT 6) through Seperate PVC conduits for Data Outlets from Respective Network swich.		15		
C.9.7	Wall Mountable Powder Coated Enclosure cabinet with power supply and all required accessories to mount Network switch, UPS, etc. (5U)		1		
C.9.8	Rack mountable UPS (Minimum 1kVA) with 10 Minutes Backup time	nr	1		
C.9.9	Laying 4 pair U/UTP Cable (CAT 6) through Seperate PVC conduits	m	80		

BILL NO. C: ELECTRICAL & MECHANICAL WORKS

BILL OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				Rs. Cts.	Rs. Cts.
C.10	AC Installation Supply and installation of wall mounted following split type air conditioning units with all necessary Drainage pipes, components/units and accessories including energy saving inverter system).				
	All the units should directly purchased from authorized agent & have minimum one year warranty from authorized agent in sri Lanka.				
	Supply and installation of wall mounted Inverter type (with Nano air purification technology, Blue fin technology) following split type air conditioning units with all necessary components/units and accessories.				
	Rate shall be include to mount galvanized brackets to both indoor and outdoor units, Approved type non corrosive treatment for outdoor unit internal parts, etc.				
	Make of units shall be European/Japanese or equivalent make approved by the Engineer.	Note			
C.10.1	Unit having cooling capacity of 9000/10000 Btu/hrs	nr	3		
C.10.2	Unit having cooling capacity of 12000/13000 Btu/hrs	nr	3		
C.10.3	Unit having cooling capacity of 18000 Btu/hrs	nr	3		
C.10.4	Unit having cooling capacity of 24000 Btu/hrs	nr	1		
	If the piping length from indoor to outdoor unit exceeds 5m,below additional piping length is applicable.	Note			
C.10.5	Chargers for Extra pipes with insulation, Additional Casing, Drain pipes with insulation for 24,000Btu/hr AC.	m	5		
C.10.6	Chargers for Extra pipes with insulation, Additional Casing, Drain pipes with insulation for 9,000/18,000Btu/hr AC.	m	15		
С	TOTAL CARRIED TO SU	MMAR	Υ		