

Nit No. CIPET/HAL/ E-TEN.-01/Repairing & Renovation Work/Construction/2019-2020

'Name of Work:- Repairing Estimate For Administrative & Academic Building of CIPET, Haldia

General Rules and Direction for the Guidance of Contractors

Work to be carried out as described below as per approved specifications and as per drawings and as directed from time to time. Tenderer has to put the unit rate and to calculate the total amount in the table below.

Quoted rates should be exclusive of GST & other Taxes as applicable

Rates to be in Figures and Words:

The tenderer shall quote all the rates and amounts in figures and words in English. In case of any discrepancies are found between the RATES in FIGURES and WORDS or the AMOUNT quoted in the tender, the following procedure shall be followed:

- When there is difference between the rates in figures and words, the rate which corresponds to the amount worked out by the tenderer shall be taken as correct.
- When the rate quoted by the tenderer in figures and words tally but the amount is incorrect the item rate quoted by the tenderer shall be taken as correct.
- When it is not possible to ascertain the correct rate by either of above methods, the rate quoted in words shall be taken as correct.

Schedule of work:

Name of the Contractor

SL. No.	Description of Items	Units	Quantity	Rate Rs. P. (Price to be quoted by tenderer)	Total Amount Rs. P. (Price to be filled by tenderer)
1	Earth works in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item including necessary trimming the sides of trenches, leveling, dressing and ramming the bottom, evelin out water as required complete.	Cu. M.			
	(a) Depth of excavation not exceeding 1500 mm.		195.95		-
2	A) Filling in foundation trenches or plinth by silver sand in layers not exceeding 150 mm. as directed and consolidating same by thorough saturation with water ramming complete including the cost of supply of sand. (Payment to be made on measurement of finished quality.)	Cu. M.	95.68		-
3	Single brick flat soling with picked Jhama bricks including ramming and dressing bed to proper level and filling joints with local sand.	Sq. m.	332.06		-
4	(I) Cement concrete with graded stone ballast (40 mm size excluding shuttering). In Ground Floor (A) [Pakur Variety]	Cu. M.			
	(a) 1:3:6 proportion.		57.13		-
5	Ordinary Cement concrete (mix 1: 1.5: 3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes.				
	(i) Pakur Variety	Cu. M.			

	• In Second floor.		22.3		-
6	Ordinary Cement concrete (mix 1: 2: 4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes.				
	(i) Pakur Variety	Cu. M.			
	• In Second floor.		135.55		-
7	Applying 2 coats of bonding agent with synthetic multi functional rubber emulsion having adhesive and water proofing properties by mixing with water in proportion (1 bonding agent: 4 water : 6 cement) as per Manufacture's specification [Cement to be supplied by the Contactor]	Sq. m.	1,807.42		-
8	Hire and labour charges for shuttering with centering and necessary staging upto 4 m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams and columns, lintels curved or straight including fitting, fixing and striking out after completion of works (upto roof of Top floor).	Sq. m.			
	(When the height of a particular floor is more than 4 m the equivalent floor height shall be taken as 4 m ht.shall be allowed)				
	I Steel shuttering or 9 to 12 mm thick approved quality ply board shuttering in any concrete work				
	• In Second floor and Mumty		106.87		-
9	Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending correct shape, placing in proper position and binding with 16 gauge black annealed wire at every intersection, complete as per drawing and direction.	Tonne			
	(a) For works in foundation, basement and upto roof of Second floor				
	(i) Tor steel/Mild steel				
	I. SAIL/TATA/RINL				
	• In Second floor.		3.23		-
10	First Class Brick work (250 mm thick) in cement mortar (1: 4)	Cu. M.			
	a) In foundation and plinth		66.66		-
11	First Class Brick work (250 mm thick) in cement mortar (1:6)	Cu. M.			
	• In Super Structure ground floor to Second floor.		44.53		-
12	125 mm thick brick work with 1 st class bricks in cement mortar (1:4)	Sq. m.			
	• In Ground floor.		36		-
	• In First floor/Second Floor		36		-
13	Extra for using approved H.B. netting in every third layer in 125 mm thick brick work	Sq. m.	72		-

14	Labour for Chipping of concrete surface before taking up plastering work.	Sq. m.			
	<ul style="list-style-type: none"> In Ground floor to Second floor. 		68.34		-
15	Supplying and laying Polythene Sheet (150 gm/sq.m) over damp proof course or below flooring or roof terracing or in foundation or in foundation trenches.	Sq. m.			
	<ul style="list-style-type: none"> In Ground floor to Second floor.. 		68.34		-
16	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course, scaffolding / staging where necessary (Ground floor.) [excluding cost of chipping over concrete surface]	Sq. m.			
	With 1:6 Cement mortar.				
	b. 20 mm thick plaster (external)				
	<ul style="list-style-type: none"> In Second floor. 		351.81		-
17	Neat cement punning about 1.5mm thick in wall, dado, window sill, floor etc.	Sq. m.			
	NOTE: Cement 0.152 cu.m per100 sq.m.				
	<ul style="list-style-type: none"> In Ground floor to Second Floor 		612.38		-
18	Supplying and laying true line and level vitrified tiles of approved brand (size not less than 600 mm x 600 mm x 10 mm thick) in floor, skirting etc set in 20 mm sand cement mortar (1:4) and 2 mm thick cement slurry back side of tiles using cement @ 2.91 kg. / sq.m. or using polymerized adhesive (6 mm thick layer applied directly over finished artificial stone floor / mosaic etc without any backing course) laid after application slurry using 1.75 kg of cement per sq.m. below mortar only, joints grouted with admixture of white cement and colouring pigment to match with colour of tiles / epoxy grout materials of approved make as directed and removal of wax coating of top surface of tiles with warm water and polishing the tiles using soft and dry cloth upto mirror finish complete including the cost of materials, labour and all other incidental charges complete true to the manufacturer's specification and direction of Engineer-in-Charge. (White cement, synthetic adhesive and grout material to be supplied by the contractor)	Sq. m.			
	(ii) With polymerized Adhesive [6 mm thick] & epoxy grouting materials for filling joints including spacer-2 mm [Applied directly over finished artificial stone floor / mosaic etc.]				
	(A) Deep colour & white				
	<ul style="list-style-type: none"> In Different Floors 		233.22		-
19	Supplying fitting and fixing of 1 st quality Ceramic tiles in wall and floors to match with the existing work & 4 nos. of key stones (10 mm) fixed with araldite at the back of each tiles & finishing the joints with white cement mixed with colouring oxide of required to match colour of tiles including roughening of concrete surface, if necessary or by synthetic adhesive & grout materials etc.	Sq. m.			
	A) Floor :				
	With sand cement mortar (1:4) 20 mm thick & 2 mm thick cement slurry at back side of tiles using cement @ 2.91 kg / Sq.m & joint filling using white cement slurry @ 0.20 kg / Sq.m				
	b) Area of each tile above 0.09 Sq.m				
	i) Coloured decorative				
	<ul style="list-style-type: none"> In Different Floors 		15.5		-
	B) Wall :				

	With sand cement mortar (1:3) 15 mm thick & 2 mm thick cement slurry at back side of tiles using cement @ 2.91 kg / Sq.m & joint filling using white cement slurry @ 0.20 kg / Sq.m				
	b) Area of each tile above 0.09 Sq.m				
	i) Coloured decorative				
	• In Different Floors		42.96		-
20	Cement washing including cleaning and smoothening surface thoroughly (cement to be used @ 15 kg / 100 sq m of surface for one coat and @ 25 kg / 100 sq m of surface for two coats)	Sq. m.			
	(b) Two coats (on new works only)				
	• In Different Floors				
	External plaster		351.81		-
21	Applying Exterior grade Acrylic primer of approved quality and brand on plastered or concrete surface old or new surface to receive decorative textured (matt finish) or smooth finish acrylic exterior emulsion paint including scraping and preparing the surface thoroughly, complete as per manufacturer's specification and as per direction of the EIC.	Sq. m.			
	b) Two coats				
	• In Ground floor.				
	External plaster		1,846.35		-
	• In First floor.				
	External plaster		1,846.35		-
	• In Second floor.				
	External plaster		1,846.35		-
22	Protective and decorative acrylic exterior emulsion paints of approved quality as per manufacturer's specification and as per direction of Engineer in charge to be applied over acrylic primer as required. The rates including the cost of materials, labour, scaffolding and all other incidental charges but excluding the cost of primer.	Sq. m.			
	Two coats				
	I Super Protective 100% Acrylic Emulsion.				
	• In Ground floor.		1,510.74		-
	• In First floor.		1,510.74		-
	• In Second floor.				
	External plaster		351.81		-
23	Applying Interior grade Acrylic primer of approved quality and brand on plastered or concrete surface old or new surface to receive decorative textured (matt finish) or smooth finish acrylic exterior emulsion paint including scraping and preparing the surface thoroughly, complete as per manufacturer's specification and as per direction of the EIC.	Sq. m.			
	(b) Two coats				
	(ii) Solvent base interior grade acrylic primer.				
	• In Ground floor.		2,923.08		-
	• In First floor & Second Floor				
	External plaster		2,923.08		-
24	Acrylic Distemper to interior wall, ceiling with a coat of solvent based interior grade acrylic primer (as per manufacture's specification) including cleaning and smoothing of surface.	Sq. m.			
	Two coats				

	• In Ground floor.		2,923.08		-
	• In First floor.		2,923.08		-
25	b) Priming one coat to timber or plastered surface with synthetic oil bound primer of approved quality including smootheing surface by sand papering etc.	Sq. m.			
	• In Ground floor.		333.84		-
	• In First floor.		333.84		-
	a) Priming one coat on steel or other metal surface with synthetic oil bound primer of approved quality including smootheing surface by sand papering etc.	Sq. m.			
	• In Ground floor.		78		-
	• In First floor.		78		-
26	A) Painting with best quality synthetic enamel superior quality paint of approved make and brand including smootheing surface by sand papering etc. including using of approved putty etc.	Sq. m.			
	(a) On timber or plastered surface				
	(iv) Two coats (with any shade except white)				
	• In Ground floor.		333.84		-
	• In First floor.		333.84		-
	(b) On steel or other metal surface				
	(iv) Two coats (with any shade except white)				
	• In Ground floor.		78		-
	• In First floor.		78		-
27	Extra rate for using water proofing and plastic sing admixture @ 0.2% by weight of cement (or at manufacture's specified rate) for concrete of various grades.	Kg	8.42		-
28	Supplying, fitting & fixing UPVC pipes A- Type and fittings conforming to IS:13592-1992 with all necessary clamps nails, including making holes in walls, floor etc. cutting trenches in any soil through masonry concrete structures etc if necessary and mending good damages including joining with jointing materials (Spun Yarn, Valamoid/ Bitumen /M-Seal etc) complete.	Mtr.			
	A) UPVC Pipes:				
	(ii)110 mm. Dia.		195		-
	B) UPVC Fittings:				
	a) Plain Tee				
	(ii)110 mm. Dia.	Each	25		-
29	a) M.S. or W.I. Ornamental grill of approved design joints continuously welded with M.S W.I. Flats and bars of windows railing etc. fitted and fixed with necessary screws and lugs in ground floor.	Kg.			
	(ii) Grill weight above 16 kg./sq.m. and above				
	• In Ground Floor		720		-
	• In First Floor /Second Floor		720		-

30	Woodwork in door and window frame fitted and fixed in position complete including a protective coat of painting at the contact surface of the frame excluding cost of concrete, Iron Butt Hinges and M.S. clamps. (The quantum should be corrected upto three decimals). (d) Sal: Siliguri	Cu. M.			
	• In First Floor /Second Floor		0.39		-
31	Supplying best Indian sheet glass panes set in putty and fitted and fixed with nails and putty complete. (In all floors for internal wall & upto 6 m height for external wall). (ii) 4 mm. thick	Sq. m.			
	• In Ground Floor / First Floor /Second Floor		78		-
32	Supplying solid flush type doors of commercial quality, the timber frame consisting of top and bottom rails and side styles of well seasoned timber 65 mm. wide each and the entire frame fitted with 37.5 mm. wide battens, placed both ways in order to make the door of solid core and internal lipping with Garjan or similar wood veneers using phenol formaldehyde as glue etc. complete. Including the cost of hinges and other fitting in ground floor. a) 35 mm. thick shutters (single leaf)	Sq. m.			
	• In Ground Floor / First Floor /Second Floor		19.48		-
33	Providing and fixing of 15 mm thick Mineral Fiber Acoustic false ceiling Tiles of approved pattern and size 595 mm X 595 mm should be placed in the Grid module to form a False ceiling with NRC value > 0.6 material class A-2-sl, do as per EN 13501-1, Fire:REI-REI 120 as per EN 13501-2, surface burning characteristics: class 1 or A as per ASTM E84) with powder coated exposed G.I grid suspension system (interlocking T-Grid E-having load carrying capacity with mid span deflection not exceeding 1 / 360 span with hanger spacing of 1200 mm c/c) consisting of main runner 3600 mm long. Cross Tee 1200 mm / 600 mm long and wall angle. The wall angle shall be fixed on PVC dash fasteners on the perimeter of the wall by steel screws with distance 300 mm c/c. The main runners to be placed @ 1200 mm. The Cross Tee 1200 mm will be inserted in the pre-cut slots of main runner at a regular interval 600 mm to form a modular grid of 1200 mm x 600 mm. Additional Cross Tee of 600 mm shall be placed perpendicular to the Cross Tee of 1200 mm long of finally from a grid of 600 mm x 600 mm. Grid of module size 600 mm x 600 mm shall be supported by 6 mm dia G.I wire from purling / eve. All complete as per drawing & directions of Engineer-In-Charge. In Ground floor. a) With 15 mm thick mineral fiber False Ceiling tile (NRC-0.6 as per ASTM C423 & Sound attenuation – 34dB as per EN ISO 10848)	Sq m			
			196.65		-
34	M.S. structural works with hollow sections (TATA make square or rectangular shape) conforming to(IS: 806-1957 & IS: 1161-1958) connected to one another with bracket, gusset, cleat as per design, drawing & direction of Engineer-in-Charge complete including cutting to requisite shape & size, fabrication including metal arc welding conforming to IS: 816-1956 & IS: 9595 using electrodes of approved make and brand conforming to IS: 814-1957, haulage, hoisting creation all complete. The rate includes the cost of all M.S. Hollow section, all consumables such as electrodes, gas and hire charges of tools & plants, labour required for execution and all incidental charges (such as electricity, labour insurance) etc.				
	(Payment to be made on the basis of calculated weight of structural members of MS Hollow Section as specified in relevant IS code in finished work Payment for gusset, bracket, cleat may be made by adding the actual weight of such items with the weight of finished structural members. The rates are considered for a height of creation 8m/2 nd floor level from the ground. Add. 1.5% extra over the rate for each additional floor or 4m beyond initial 8m or part thereof.	MT			
	i) For roof truss works.				
	c) Span beyond 20 mtr. And upto 30 Mtr.		1.01		-

35	Supplying, fitting & fixing Zn-Al alloy (55% Al & 45% Zn) coating of 150 grams per sq. metre (followed by colour coated on both side) steel sheet work having minimum yield strength of 550 Mpa of evelingle profile of approved make (excluding the supporting frame work) fitted and fixed with 55 mm & 25 mm self tapping screw, EPDM Washer 16 mm dia & 3 mm th. Washer etc. complete with 150 mm end lap and one corrugation minimum side lap. (Payment to be made on area of finished work).	Sq m			
	i) In roof				
	(a) With 0.50 mm. Thick sheet		67.5		-
36	Uprooting and removing plants from the surface of walls parapet etc and making good damages. Repairing of damages to be paid separately.				
	(a) Small plant of girth of exposed stem upto 75 mm. lift upto 6 mtr.	Each	5		-
	(b) Medium size plant of girth of exposed stem above 75 mm but not exceeding 150 mm lift upto 6 mtr.	Each	20		-
	I Large plant of girth of exposed stem above 150 mm but not exceeding 225 mm lift upto 6 mtr.	Each	10		-
37	Cleaning the concrete evelin by removing dirt and debris, making defective locations and removing loose concrete by careful stripping evel hard surface is exposed, cutting the concrete to regular shape, wire brushing the exposed surface and removing debris from site complete as per direction of the Engineer – in – Charge.	Sq m	113.9		-
38	Cleaning the exposed reinforcement preferable upto full diameter by wire brush, applying two coats of polymer based rust removing compound left for 24 hours removing the coating and then applying two (2) coats of polymer modified anti corrosive protective coating formulated to inhibit the corrosion of reinforcement as per manufacturer's specification	Sq m	113.9		-
39	Removing corroded worn out portion of reinforcement (when the area of bar is damaged by more than 25%) by cutting and replacing the same by a new plain round bar of requisite diameter by binding with required lap / welding with old bar, including cost of reinforcement, complete in all respect including removing unserviceable materials from site as per direction of the Engineer – in – charge. Note : Payment on weight (Kg.) of new reinforcement.	Kg	500		-
40	Applying epoxy based reactive joining agent for joining the old concrete with fresh concrete to be applied within manufacturer's specified time as per manufacturers specification. (0.4 Kg / m ² of concrete surface). Note: Applicable only when the full diameter of reinforcement steel is exposed.	Sq m	113.9		-
41	Repair to roof cracks with Bitumen (VG-40) including cutting grooves and cleaning cracks, heating bitumen as directed and finished with sand blinding (Bitumen 1.687 kg/sq.m Medium sand 0.6 cu.m /100 sq.m) (Bitumen to be supplied by contractor)	Sq m	129.55		-
42	Repair to cracks in terraced roof by cutting V-grooves 75 mm to 100 mm. deep and 150 mm to 200 mm wide and filling the same with beaten lime concrete (2:2:7) with lime putty / paste and finishing complete (2 lime putty / paste : 2 surki: 7 brick khoa)	Mtr	59.28		-
43	Extra rate for adding Polyester Fibre anti shrinkage material @ 0.25% by weight of cement [or as per Manufacturer's Specification] as secondary reinforcement to arrest hair crack in concrete including cost of Fibre .	Kg	200		-
44	Bituminous filler of approved type in expansion joints of dummy joints including finishing the top surface as directed.	Cu. M.	0.78		-

45	Expansion joint in floor roof etc. formed with V strips made of 22.5 cm wide strips of 24 gauge aluminum sheets with anchor arm projecting on each side (and end turn) embedded in adjacent cement concrete, including shaping and finishing the edge on either side of the joint (including cost of bituminous filler if any) complete as per direction of Engineer-in-charge)	Mtr.	59.28		-
46	Applying 2 coats of Non-Toxic Acrylic Polymer modified paint having adhesive & waterproofing properties by mixing in proportion (I liquid: 4 cementations material) or as per manufacturer's specification for water proofing layer in water tank etc.	Sq m	1,807.42		-
47	Renewing expansion joint with Elastomeric Polysulphide Sealant of gap size 50mm X 25mm Including cleaning of the expansion joint thoroughly, mending of edges & surface, placing 50mm dia Backer rod as back up material with the cost of materials, labours, & all other incidental charges as per manufacturer's specification & direction of Engineer-in-charge.	Mtr.	75.25		-
48	Filling the gap in between aluminum frame & adjacent RCC / Brick/Stone work by providing weather silicon sealant over 6mm dia backer rod of approved quality as per architectural drawings and direction of Engineer-in-Charge complete. Upto 5 mm depth and 5 mm width	Mtr.			-
	• In Ground floor.		85		-
	• In First floor / Second Floor		135		-
49	Removing scum form the bottom floor of service latrine washing the floor thoroughly and treating the same with liberal sprinkling of bleaching powder (including cost of bleaching power)	Sq m	453.13		-
50	Cleaning and removing conservancy garbage mixed with rubbish & other filthy materials from the road side flank, drain and compound including sutting, loading, unloading to and from truck or cart by Mathor labour & removing the same to any distance.	Cu. M.	216		-
51	Repairing crack in wall by cement grouting (1 : 2) including widening the crack on the surface (into V section) cleaning and packing the same with cement mortar (1:2) and finishing off to match with adjacent surface. (Cement-69 Kg/100 m)	Mtr.	135		-
52	Vertical sleeve joint in wall etc. or horizontal joint in floor roof etc. including shaping and finishing adjacent surface and aulking the joint with hemp rope thoroughly soaked in bituminous material and fixing rope in position by staples or other suitable devices complete as per direction (including cost of all materials)	Mtr.			-
	(b) With 12 mm. dia rope		65		-
	I With 16 mm. dia rope		85		-
	(d) With 19 mm. dia rope		95		-
53	Clearing compound premises of eveli, plants, jungles etc. by cutting and removing as directed (Specific permission of Engineer-in-Charge prior to execution will be necessary).	Sq m	1,293.75		-
54	Providing & fixing plain Multipurpose Cement board (High Pressure steam cured) as per IS: 14862, with suitable screws for fibre cement board in ceiling etc. complete. 12 mm thick	Sq m	225		-
55	Dismantling all types of masonry excepting cement concrete plain or reinforcement, stacking serviceable materials at site and removing rubbish as directed within a load of 75 m.	Cu. M.			-

	<ul style="list-style-type: none"> In Ground Floor / First Floor /Second Floor 		45.8		-
56	Dismantling R.C. floor, roof, beams etc. including cutting rods and removing rubbish as directed within a lead of 75 m. including stacking of steels bars.	Cu. M.			
	<ul style="list-style-type: none"> In Ground Floor / First Floor /Second Floor 		26.84		-
57	Stripping off worn out plaster and raking out joint of walls, ceiling etc. upto any height and in any floor including removing rubbish within a lead of 75 m as directed	Sq m	411.01		-
58	Dismantling terraced roof in ground floor roof (including floor finish, if any) taking out carefully tiles with beams, joints, tees or burghs covering floor below, sorting and stacking evelingle materials at site and removing rubbish as directed within a lead of 75 m.	Sq m			
	<ul style="list-style-type: none"> In Ground Floor / First Floor /Second Floor 		1,807.42		-
59	<p>Supplying and laying standard six course bituminous water proofing treatment as per specification laid down in I.S. 1346 – 1991 to be finished with pea size gravel including necessary preparatory works such as shaping mouth of outlets, cutting chase as and where necessary and refilling with sand and Cement mortar (4:1) or Cement Concrete (1:2:4) with graded stone chips before undertaking the treatment including cutting grooves in parapet and mending good damage complete in all respect as per direction of Engineer – in – Charge including cost of all materials and labours and incidental charges but excluding the cost of Cement Mortar or concrete required for eveling and grading. (In sloped roof Course sand of approved varieties is to be used in place of Pea size gravels as sixth and final course.)</p> <p>iii) 6th course with washed and clean pea sized gravel or grit @ 0.006 cum/Sqm.</p> <p>A. Over Flat Roof. In Ground Floor / First Floor /Second Floor</p>	Sq m	2,883.67		-
60	Preparation of drainage spout on roof for bituminous water proofing treatment after required grading and shaping of the under bed with Cement Concrete (1:2:4) or Cement Mortar (1:4) as directed, Chamfering and molding the parapet wall to form a bell mouth entry, if required and providing full course treatment with bituminous felt to facilitate quick and smooth drainage of water into the down pipes complete including cost of all materials and labour according to satisfaction of the Engineer – in – Charge.	Each	135		-
61			Grand Total		-
Rupees in words					

