Birla Industrial & Technological Museum



(National Council of Science Museums, Ministry of Culture, Govt. of India)



19A, Gurusaday Road, Kolkata - 700 019

Sub: Repairing & Painting of old museum building at SSC, Patna.

Sl. No.	Description of item	Qty.	Unit	Rate	Amount
1.0	Dismantling of old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 150 meters lead or as directed.	200	Sqm.	45.05	9,010.00
2.0	Demolishing R.C.C. work manually/ by mechanical means including cutting of reinforcement, stacking of steel bars and disposal of unserviceable material within 150 meters lead as per direction of		Sqiii.	43.03	9,010.00
3.0	Engineer - in- charge. Demolishing brick work in cement mortar manually/ by mechanical means including stacking of serviceable material and disposal of	3	Cum	2,928.10	8,784.30
	unserviceable material within 150 meters lead as per direction of Engineer-in-charge.	1	Cum	1,698.45	1,698.45
4.0	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering: 1:1½:3 (1 Cement: 1½ coarse sand (zone-III): 3 graded stone				
5.0	aggregate 20 mm nominal size) Centering and shuttering including strutting, propping etc. and	1	Cum	7,783.65	7,783.65
	removal of form work for: Foundations, footings, bases for columns, copping of boundary wall etc.	5	Sqm.	307.95	1,539.75
6.0	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in Cement mortar 1:6 (1 cement : 6				
7.0	coarse sand)	1	Cum	8,288.35	8,288.35
7.0	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand)	2	Sqm.	1,018.05	2,036.10
8.0	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 at any height.				
9.0	With 1:6 cement mortar, 15mm thick plaster Neat cement punning about 1.5mm thick in wall, dado, window, sill, floor etc. Note: Cement consumption 0.152 cu.m per100 sq.m.	200	Sqm.	324.30	64,860.00
		20	Sqm.	67.80	1,356.00
10.0	Providing & mixing polymer based water resistant bonding agent like Dr. Fixit 101 LW+ or equivalent in cement plaster as per manufacture's specification and direction of EIC.		Lit.	425.00	4,250.00
11.0	-		Dit.	123.00	,,,,,,,,,,
11.1	Providing & applying rust removing compound (Sika Rust off 100 or equivalent).	2	Kg	390.00	780.00
11.2	Providing & applying polymer modified anti corrosive protective coating (Sika Rustop or equivalent).	5	Kg	307.00	1,535.00

Sl. No.	Description of item	Qty.	Unit	Rate	Amount
12.0	Repairing of crack in wall, roof etc. 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)	400	Mtr.	15.00	6,000.00
13.0	Cement concrete (1:1½:3) with graded stone chips 5.6 mm size with hexagonal/ square mesh wire netting, I.R.C. fabric mesh or X.P.M. fitted and fixed after tying the existing reinforcement on concrete without distributing the same and with proper scarping and cleaning the reinforcement and disturbed concrete with wire brush etc. after applying a coat of cement including the cost of wire netting I.R.C or X. P. M. & cost of all handling and scaffolding complete as per direction of Engineer-in -charge. Avg 40mm thick. (This item will be done only after specific instruction of EIC.)	30	Sqm.	653.00	19,590.00
14.0	Repairing of cracks in Dome & adjoining annular surface with Acrylic co-polymer based Crack fillers of approved quality and brand (ICI Dulux Aquatech Crack fillers or equivalent) including cutting grooves (10mm x 10mm), cleaning and finishing off the same to match with adjacent surface. The rate is inclusive of necessary staging & scaffolding if required.	100	Mtr.	32.00	3,200.00
15.0	Providing and applying fibre reinforced elastomeric liquid water proofing membrane with resilient acrylic polymers having Sun Reflectivity Index (SRI) of 105 on top of concrete roof in three coats @10.76 litre/ 10 sqm. One coat of self-priming of elastomeric waterproofing liquid (dilution with water in the ratio of 3:1) and two coats of undiluted elastomeric waterproofing liquid (dry film thickness of complete application/ system not less than 500 microns). The operation shall be carried out after scrapping and properly cleaning the surface to remove loose particles with wire brushes, complete in all respect as per the direction and strict supervision of Engineer-in-Charge. (Make: Dr. Fixit Roof seal Top				
16.0	Coat or Equivalent) Finishing walls with protective and decorative 100% Premium acrylic emulsion paint having VOC less than 50 gm/litre and UV resistance as per IS15489:2004, Alkali & fungal resistance, dirt resistance exterior paint of required shade (Company Depot Tinted) with silicon additives including necessary scaffolding at any height, Scraping of moss, blister etc. thoroughly from exterior surface of walls by the use of scraper, wire brush etc all complete. New or old work (Two or more coats applied @ 1.43 litre/10 sqm. over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm. (Rate is inclusive of applying additional coats wherever required to achieve even shade and colour.) Primer: Dulux Weathershield Alkali Bloc Primer or Equivalent Paint: ICI weathershild Protect/ Asian paint Apex Ultima	100	Sqm	474.15	47,415.00
17.0	Protek/ Berger Long life10. Applying priming coat (One or more coat) with ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood) including smoothening surfaces by sand	2500	Sqm.	154.45	3,86,125.00
18.0	papering etc. all complete. Applying priming coat (One or more coat) with ready mixed red oxide/ zinc chromate primer of approved brand and manufacture on steel galvanized iron/ steel works, including removing of rust, old paints and smoothening of surfaces by sand papering etc all	20	Sqm.	61.45	1,229.00
	complete.	150	Sqm.	55.50	8,325.00

Sl. No.	Description of item	Qty.	Unit	Rate	Amount
19.0	Painting with synthetic enamel paint of approved brand and manufacture (ICI Dulux 5 in 1 or Equivalent) to give an even shade: <i>Two or more coats</i> on wood work (hard and soft wood), steel works				
	etc.	170	Sqm.	131.45	22,346.50
20.0	Providing and applying white cement based waterproof putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth all				
	complete including removing of old/ dilapidated putty wherever necessary. Make: JK/ Birla white/ Asian Paints/ Berger	50	C area	122.05	6 102 50
21.0	Applying priming coats (One or more coat) with water thinnable cement primer of approved brand and manufacture on wall surface, having low VOC (Volatile Organic Compound less than 50 grams/litre) content including scraping and preparing the surface thoroughly, removing of dust etc all complete as per manufacturer's specification and direction of the EIC (At any Floor). Make: Asian Paints/ ICI Dulux/ Berger.	200	Sqm.	123.85	6,192.50
22.0	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture (Asian Paints Apcolite/ ICI Dulux Super Clean / Berger Easy clean), applying <i>Two or more coats</i> to achieve even shade and colour as per direction and satisfaction of EIC.	200	_	121.55	24,310.00
23.0	Providing & fixing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia &	200	Sqm.	121.33	24,310.00
	length. Sal wood.	0.1	Cum	1,06,720.85	10,672.09
24.0	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters: 30 mm thick shutters including 4nos ISI marked Stainless Steel butt hinges with necessary	4.5	Carre	1 001 05	9 479 79
25.0	screws all complete. Renewing of glass panes, with putty and nails wherever necessary including racking out the old putty. Bubble float glass panes (coloured / tinted / smoke) of nominal thickness 5 mm (weight not less than 12.5kg/sqm) of approved make and brand conforming to	4.5	Sqm.	1,881.95	8,468.78
2.50	IS: 2835-1987.	5	Sqm.	1,245.15	6,225.75
26.0	Renewing of old worn out putty of glass panes.	100	Mtr.	46.40	4,640.00
27.0	Providing & fixing of double bamboo scaffolding for dismantling, plastering, replacing of glass panels and other misc. repairing works of building and S&P works (for external works only) with 10 cm. dia bamboo as main vertical posts @ 1.2 meter centre to centre and 7.5 cm. dia bamboo ties/ horizontal bracing @ 1.0 meter apart, width of double scaffolding shall be 1.0 meter and necessary ties/ cross bracing to be fixed at required intervel with necessary coir rope, nails etc. as per direction of the Engineer-in-charge. The rate includes errection & dismantling of scaffolding, cost of bamboo, coir rope, nails etc. all complete. Mode of measurement: Area in plan x mean height of scaffolding. (This item should be executed only after prior approval of the Engineer-in-charge. Incase of single scaffolding rate will be				
	reduced by 40%).	250	Sqm.	155.00	38,750.00

Sl. No.	Description of item	Qty.	Unit	Rate	Amount	
28.0	Removal of rubbish, earth, scrap material etc. from the working site					
	and dispose of the same beyond the compound in truck loads in conformity with Municipal/Corporation rules and as per instruction					
	of Engineer – in – Charge.	1	L.S.	4,000.00	4,000.00	
	Total cost of work including GST @12% & LWC @1% =					
	Estimated Basic value of work =				6,38,527.00	
	Add GST @18% over basic value of work =					
	Cost of work including GST =					
	Add Labour welfare cess @1% over cost of work including GST =					
	Gross estimated value of work including GST @18% & LWC @1% =					

NOTE:

- 1 Tenderers should visit the site before quoting the rate to understand the nature of work and condition of the site.
- 2 Rates shall be quoted inclusive of all materials, **wastage**, labour, shifting charges, **taxes & duties** etc. required for this job. No additional payment shall be done by the BITM for this purpose.
- 3 The work shall be required to carry out without obstructing the visitors' movements and may also be required to carry out beyond office hours (if required) for which no additional payment shall be made.
- 4 Rates shall be inclusive of staging, scaffolding, tools & plants etc required for the job and at any height/ level.
- 5 Regarding the work, directives of the Engineer-in-Charge shall be final and binding.
- 6 Required quantity of Primer and paint must be brought and stack at site at a time in sealed condition, before executing the work. The sealed containers must be got signed from the authorised person of SSC, Patna and the same empty containers (duly signed) shall be deposited to the office of SSC, Patna. The same empty container will be returned back to the contractor after certification of final bill.
- Manufacturer's specifications for application of paint & primer with respect to the consumption and mode of application to be strictly followed. Physical consumption of primer & paint will be verified with the actual area of painted surface and appropriate penalty will be imposed if any deviation is found with respect to the consumption of primer/ paint according to the manufacturer's specifications.
- 8 All the materials must be approved by the Engineer-in- Charge before supplying at site. List of Approved materials:
 - i) Cement: ACC/ Ultratech/ Lafarge/ Konark/ Ambuja.
 - ii) Interior Acrylic Emulsion: Asian Paints Apcolite/ ICI Dulux Super Clean / Berger Easy clean.
 - iii) Synthetic Enamel: Asian paints/ ICI Dulux/ Berger.
 - iv) Exterior Primer: Dulux Weathershield Alkali Bloc Primer or Equivalent.
 - v) Exterior Acrylic Emulsion: ICI weathershild Protect/ Asian paint Apex Ultima Protek/ Berger Long life10.
 - vi) Float Glass: Saint Gobain/ Modiguard/ AIS.
 - vii) Wall Putty: Birla white, JK, Asinpaints.

Signature with seal of the Contractor