

inStem :- Civil interior works to form the office spaces at academic and canteen building

Bill of Quantities (BOQ)

Tender No. :- inStem/Maint(Civil)/19/NIT-49/2022 DT. 25/07/2022

Sl no	Description of Item	Unit	Qty
1	<p>Providing and fixing at all heights / in all floors with all leads Colour Anodised Aluminium doors / windows / partitions manufactured from best extruded Aluminium sections conforming to ISI, cut to length, joints mitred and corners grinded with joints water proof the outer frame and shutter frame stiffened with corner angle strips or provided for in the frame for fixing the frame to RCC Columns / masonry on sides, RCC lintels on top and PCC cills or floor at bottom, the frame work fixed with standard approved fastenings all generally as per details shown in drawings and specification with all the sections pre-treated for removal of any rust and prevention of further rust formation and coated with greasy materials for non-adherence of mortar or any other sticky materials and this coat to be removed after installations of the sub-dividing frames by tenoned and riveted into frames all aluminium surface be thoroughly cleaned free of rust scale or dirt and mill scale by pickling surfaces finished with colour anodised dull matt finishing 10 MICRON thick including cost of pull and push plates and fixtures for hinged openings (arrangement with steel bearings wherever necessary), cost of labour for fixing of mortice lever locks, aluminium handles, door fittings like tower bolts etc., supplied free for fixing including screws / bolts (or these materials measured separately elsewhere) where shutters are involved etc., complete, cost of providing and fixing of glass of selected glazing quality of thickness and type of glass specified hereinafter or panel boards including nylon or PVC or rubber lining of approved quality wooden grounds, rubber gasket, aluminium glazing clips, mastic etc., and fixing with aluminium glazing clips and also snap-on type with holes as per drawing and specifications provided for separately in the sub items following the main items of frame work for partition and door shutters as below: NOTE: All fitting works shall be carried out as per I.S specifications including necessary rivets, screws, lugs, scaffolding, etc., complete all generally as per drawings. The sizes of the components should confirm as per details in drawings.</p>		
1.1	<p>Providing and fixing of Colour Anodised Aluminium (Matt finish) frame work (horizontal and verticals) for partitions Doors / Windows with required sections of JINDAL / INDAL make or equivalent including all items and contingencies described above complete (Aluminium beadings and glazing clips measured under this item only).</p>	kgs	2024.00

1.2	Providing and fixing of frame work (styles and rails) for doors shutters / window shutters with required sections of JINDAL / INDAL make or equivalent including providing all items and hinged / pivoted / sliding arrangements for operation of shutters and labour cost for fixing of door fittings and locks (which shall be free if supplied for fixing or paid separately) etc., complete. (Aluminium beadings and glazing clips measured under this item only.)	kg	239.00
2	Providing and fixing toughened glass panes of selected glazing quality and thickness as specified below including providing and fixing Nylon / Rubber / PVC lining of approved quality and fixing with Aluminium glazing clips / Aluminium beadings(Supply cost of Aluminium clips / Aluminium beadings are measured in items 1.1 and 1.2 above for DOORS/ WINDOWS /PARTITIONS etc., using 6mm mm thick toughened glass.Complete all including labour, Material, Tools, Equipments, Levies, and Scaffolding as directed by the Engineer- in-charge.	sqm	152.00
3	Providing and fixing toughened glass panes of selected glazing quality and thickness as specified below including providing and fixing Nylon / Rubber / PVC lining of approved quality and fixing with Aluminium glazing clips / Aluminium beadings/Silicon joint to the glass(Supply cost of Aluminium clips / Aluminium beadings are measured in items 1.1 and 1.2 above for DOORS/ WINDOWS /PARTITIONS etc., using 8 mm thick toughened glass.Complete all including labour, Material, Tools, Equipments, Levies, and Scaffolding as directed by the Engineer- in-charge.	sqm	56.00
4	Providing and fixing 12mm thick flat pressed three layered wood based melamine faced prelaminate particle board bonded with Phenol formaldehyde with a decorative laminate of same colour on both sides - NOVOPAN PLT / BHUTAN BOARD/ ARCHIDPLY - Exterior grade or equivalent, including cutting to required size and shape, fixing with aluminium glazing clips or triangular beading (measured and paid under item 1.1 and 1.2 above) including screws, putty etc., complete	sqm	42.00
5	Providing and fixing ACP sheet of 4mm interior grade including providing and fixing Nylon / Rubber / PVC lining of approved quality and fixing with Aluminium glazing clips / Aluminium beadings(Supply cost of Aluminium clips / Aluminium beadings are measured in items 1.1 and 1.2 above for DOORS/ WINDOWS /PARTITIONS etc.,	sqm	18.00
6	Providing and fixing Ceramic Coated Steel Magnetic White board in aluminium partition section with glazing clips and rubber gasket. Writing board consisting of 8 mm thick MDF board sandwiched between Ceramic Coated Steel Magnetic White board of 1 mm thick on both sides (overall 10 mm thick).Complete all including labour, adhesives, material, transportation,sundries and levies etc.,	sqm	4.00
7	Supplying and fixing aluminium anodised mortice lock 6 levers 100mm conforming to I.S 2209 'Godrej' or equivalent make, straight edged bevelled or rotated as required, right or left handed as directed, suitable either to single or double leaf shutters including making necessary recess in shutter and fixing the mortice lock with aluminium anodised steel screws, etc; complete all as per specifications.	each	13.00
8	Supplying and fixing HYDRAULIC DOOR CLOSER conforming to IS 3564 Everite or DORMA or equivalent make of size specified below, inclusive of making adjustments and sorting it for smooth operation, etc; complete all as per specifications.		
8.1	Size 3 (To carry a door width up to 1000mm)	each	13.00
9	Providing and fixing a pair of Kich S.S. 316 Grade Pull Handle 'H' Ø 25 mm X 300 mm (c/c) (Satin).Complete all including labour, materials,sundries and levies etc.,	each	13.00
10	Providing and fixing Ozone Ball Bearing Butt Hinge of 5" X 3"), THK 3 mm With 2 Ball Bearing for the aluminium partition doors.Complete all including labour, materials,sundries and levies etc.,	each	39.00
11	Providing and fixing a pair of SS friction stay IMEX hinges of 16" length for aluminium side opening windows.Complete all including labour, materials,sundries and levies etc.,	each	4.00
12	Providing and fixing Kich S.S. 304 Grade Tower Bolt (Square) - 100 mm (Satin) .Complete all including labour, materials,sundries and levies etc.,	each	24.00
13	Providing and fixing powder coated Aluminium louvers of 30 mm thick for doors/ Aluminium doors of required size and colour. Complete all including cost of material, labour, etc., as per detailed drawing and direction of engineer in-charge.	sqm	2.89

14	Providing and fixing mineral fibre false ceiling tiles at all heights of size 595X595mm of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflectance 85%, Thermal Conductivity $k = 0.052 - 0.057$ w/m K, Fire Performance as per (BS 476 pt - 6 & 7) in true horizontal level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33 mm thick (galvanized @120 gsm) comprising of main T runners of 15x32 mm of length 3000 mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm suspended from ceiling using galvanized mild steel item (galvanized@80gsm) 50 mm long 8mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod up to 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main 'T'. The system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size 24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights. The work shall be carried out as per specifications, drawings and as per directions of the engineer-in-charge.		
14.1	With 16 mm thick beveled tegular mineral fibre Anti microbial false ceiling tile confirming to ISO 5 (class 100) specifications	sqm	254.00
15	Wall painting internal surface with plastic emulsion paint of approved brand and manufacture to give an even shade:filling the crevices with approved filler scaffolding, etc., complete all including material, labour, sundries, scaffolding and as per specifications.		
15.1	One or more coats on old work to achieve even and desired smooth surface.	sqm	737.00
16	Providing & fixing of "Saxony" construction, tufted, 1/10 gauge, 100% type 6 Crealon® nylon, roll type carpet, style name "Commodore-800" "Carus" Belgium, suitable to be used in Auditorium. he selected carpet should have inbuilt "Scotch guard®" "Type 6 Crealon® Nylon" and "Weave back®" for better performance. It should have a standard length & width of 25m and 4m respectively. The carpet should have a minimum pile height of 7 mm, with a total height of 9mm, should also have a minimum pile weight of 800g/m2 and a minimum total weight of 1650g/m2, to ensure adequate quality for the said usage. The carpet should have minimum 185040/m2 number of tufts, to ensure good density to perform under heavy traffic usage. The carpet should also have color fastness standard of minimum 4 or more for rubbing (wet or dry), water or light. It should also have thermal resistance of 0.072m7K/W and impact sound insulation of minimum 25 or more. The rate should also include providing & fixing, 8 mm underlay, all taxes & labour	sqm	26.00
17	Providing and construction Solid Cement Concrete Block masonry in cement mortar 1:6 (ce ment : coarse river sand) using factory made, load bearing, approved quality, Grade C (4.0), as per IS 2185 (Part 1), density of blocks not less than 1800kg/cum, minimum average compressive strength of units 4.0N/mm ² and minimum strength of individual unit is 3.2N/mm ² , set to level plumb including setting in position, providing scaffolding, curing, raking out joints wherever necessary etc., complete with all leads and all as per specification and direction of engineer-in charge in SUPERSTRUCTURE UPTO FLOOR FIVE LEVEL.		
17.1	For 200mm thick walls using (400x200x200)mm size blocks	cum	0.52
18	Supplying, fabricating, assembling, hoisting / erect ing and fixing in position at all heights and with all leads, structural steel works of welded built-up sections, all as per structural drawings and as per detailed specifications (for materials and workman ship) in the situations described hereinafter includ ing a) cutting of components to required lengths / widths and shapes/profiles, b) smooth machining of edges / faces, c) welding (electric arc welding) at joints of built-up sections/ single sections forre quired weld lengths and sizes and d) painting all over with two coats of Synthetic enamel paint of approved quality,makeandcolour/shade overone coat of red oxide zinc chromate primer with surfaces dulyprepared to receive painting etc., completeall as directed by the engineer-in-charge.		

	NOTE : The contractor shall submit fabrication shop drawings for work involved based on construction drawings (that may be issued during construction period) for approval by engineer-in-charge. The fabrication work shall start only after approval to the fabrication drawings. Any change required in the fabrication drawings shall be carried out at no extra cost over the quoted rates. Fabrication shall be in a perfectly workmanship like manner and as provided in Section V and VI of IS 800 and IS 7215. Welding shall be carried out by qualified welders. Electrodes for welding, the procedure, selection, test and in spection shall conform to provisions in IS 816, IS 818, IS 822, and IS 833. Erection/hoisting shall commence only after passing of fabricated parts by the engineer-in-charge		
18.1	Structural steel works in welded built-up sections of roof purlins, side cladding supports, roof purlins/ truss bracings and tie runners, gutter supports, glazing supports and the like fabricated with MS Flats of any thickness and size, Tees, other sections and MS rods as in sag rods/ tie rods of any diameter	MT	0.1600
19	Hacking of CC flooring including cleaning for surface and making feasible for laying KOTA stone flooring etc. complete as per direction of the Engineer-in-Charge.	sqm	28.00
20	Providing and laying 20 to 30mm thick polished KOTA stone slab flooring / skirting / dadoing / riser / tread using slabs, machine cut to required size, laid over a bed of 20mm thick cement mortar 1:4, and cement slurry at the rate of 4.4 kg /sqm for bedding and 2kg /sqm for joints, close jointed and pointed with grey cement slurry mixed with pigments to match the shade of the slabs, finishing to required level and slope, curing, rubbing, cleaning with oxalic acid and wax polishing etc; complete all as per specifications.		
20.1	in flooring	sqm	31.00
21	Removing and refixing fixing tiled false ceiling with existing available tiles of specified materials of size 595x595 mm in true horizontal level, complete including supplying and fixing of suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all Tsections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.		
21.1	Removing and refixing GI Metal Ceiling with the existing tiles , Lay in plain 0.5 mm thick with 8 mm drop; made of G I sheet .Including providing extra supports for the Ducts/electrical fixtures fixed in the cut outs of ceiling tiles and where ever required.	sqm	16.00
22	Dismantling Gypsum board false ceiling including disposal of unservicable surplus material and stacking of servicable material with in 50 m lead as directed by Engineer - In - Charge.	sqm	9.00

23	Providing and fixing at all height in all floor with all lead seamless type M/F suspended False ceiling of India Gypsum or equivalent using GI perimeter channel of size 0.55mm thick (having one flange of 20mm and another flange of 30mm and a web of 27mm) along with perimeter of ceiling, screws fixed to brick wall / partition with the help of nylon sleeves and screws at 610mm centres. Then suspending GI intermediate channels of size 45mm (0.9mm thick with two flanges of 15mm each) from the soffit at 1220mm centres with ceiling angle of width 25mmx10mmx0.5mm thick fixed to soffit with GI cleat and steel expansion fasteners. Ceiling section of 0.55mm thickness having knurled web of 51.5mm and two flanges of 26mm each with lips of 10.5mm are then fixed to the intermediate channel with the help of connecting clip and in direction of perpendicular to the intermediate channel at 5457mm centres. 12.5mm tapered edge gypboard (conforming to IS 2095- 1982) is then screw fixed to ceiling section with 25mm dry wall screws at 230mm centres. Screws fixing is done mechanically either with screw driver or drilling machine with suitable attachment. Finally the boards of 12.5mm thick gyp board are to be jointed and finished so as to have a flush look which includes filling and finishing the tapered and square edges of the boards with jointing compound, joint	sqm	9.00
24	Repairs to plaster of thicknesses from 12mm to 20mm in patches of 2.5sqm and under including cutting the patch in proper shape and preparing and plastering the surface of the walls complete including disposal of rubbish to the dumping ground within 50m lead.		
24.1	with C.M 1:3	sqm	10.00
25	Dismantling tile work in floors and roofs laid in cement, including demolishing the cement mortar, including stacking material within 50m lead		
25.1	for thickness of tiles 10mm to 25mm	sqm	7.00
26	Providing and laying vitrified tile flooring / skirting using first/premium quality vitrified tiles as per IS:15622 - 2006 Group B I a, of specified sizes of Somany /Johnson /AGL/Kajaria/Spartek /Regency/ Navin/ Bell or equivalent make and approved colour with straight edge laid with a gap of 5 to 8mm thick BAL-CEM Adhesive (gold star) of M/s. Bal-Endura Adhesives Ltd. or equivalent, and joints grouted using the mixture of Bal-grout and Bal-GT1 or equivalent of approved shade / colour having paper joint and finishing to required level, etc., complete all as per specifications and as directed by engineer-in charge at all levels for:		
26.1	vitrified tile, Polished Double charged with nano tech in light series of size 600mm (±5mm) x 600mm (±5mm) x 9 to 9.5mm (±0.5mm) thick	sqm	7.00
27	Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground, all complete as per direction of Engineer-in-Charge.		
27.1	For ducts/ventilators/door/ window/ clerestory window	sqm	6.00
28	Disposing the building debris to outside the campus in an unobjectionable way from municipal Authorities by using mechanical transport including cost of labour for loading and unloading etc., complete and as directed by EIC.	cum	12.00
29	Providing Core Cutting for walls/ for slabs of various dia including neat finishing and cleaning as directed by Engineer In-Charge		
29.1	For dia 40mm/50mm/63mm/75mm upto 300mm depth	each	11.00
29.2	For dia 80-300mm upto 300mm depth	each	8.00