

SUMMARY

Name of work :- Refurbishment of Auditorium for maintenance and upkeep, at VNIT, Nagpur.

Sr. No.	Name of Work	Amount (In Lakhs)
A)	Cost of civil work	
B)	Cost of Electrical work	
	Total Cost (A + B)	₹

Plus GST as applicable

Contractor


Director

VISVESVARAYA NATIONAL INSTITUTE OF TECHNOLOGY, NAGPUR.

SCHEDULE -B

Name of work : Refurbishment for maintenance and upkeep of Auditorium(Phase -I) at VNIT.

A) CIVIL WORK

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
1	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.5 m.) Spec. No. Bd.A.1 Page No. 259	850.00	Cu.M.			
2	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 m. to 3.0 m) Spec. No. Bd.A.1 Page No. 259	560.00	Cu.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
3	<p>Providing and laying Cast in situ/Ready Mix cement concrete in M15 of trap/ granite/quartzite/gneiss metal for bed blocks, foundation blocks and such other items including bailing out water, plywood/steel formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With natural sand/V.S.I. quality Artificial Sand</p> <p style="text-align: right;">Spec. No. Bd.E.4 Page No. 289 and B-7, Page No.38</p>	170.00	Cu.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
4	<p>Providing and laying in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, formwork, laying/pumping cover blocks, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggrgate,natural sand/crushed sand V.S.I. grade finely washed etc.</p> <p style="text-align: right;">Spec. No. Bd.F.3 Page No. 298 and B.7, Page No.38</p>	220.00	Cu.M.			
5	<p>Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggrgate,natural sand/crushed sand V.S.I. grade finely washed etc.</p> <p style="text-align: right;">Spec. No. Bd.F.5 Page No. 300 and B.7, Page.No. 38</p>	115.00	Cu.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
6	<p>Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggrgate,natural sand/crushed sand V.S.I. grade finely washed etc.</p> <p style="text-align: right;">Spec. No. Bd.F.6 Page No. 300 and B.7, Page No.38</p>	165.00	Cu.M.			
7	<p>Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap/ granite / quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including centering, formwork, cover blocks, compaction, finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete.(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggrgate,natural sand/crushed sand V.S.I. grade finely washed etc.</p> <p style="text-align: right;">Spec. No. Bd.F.8 Page No. 302 and B.7, Page No.38</p>	85.00	Cu.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
8	<p>Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap / quartzite /granite /gneiss metal for R.C.C. Waist slab, and steps of staircases as per detailed design and drawings or as directed including steel centering, plywood/ steel formwork, steel props, laying/pumping, compaction, finishing uneven and honeycombed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding einforcement, including cover block).(Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.) with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggrgate,natural sand/crushed sand V.S.I. grade finely washed etc.</p> <p style="text-align: right;">Spec. No. Bd.F.13 Page No. 305 / I.S.456 (2000)</p>	110.00	Cu.M.			
9	<p>Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. pardi / wall of required thickness including centering, formwork, cover blocks, laying/pumping, compacting and roughening them if special finish is to be provided and curing complete.(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggrgate,natural sand/crushed sand V.S.I. grade finely washed etc.</p> <p style="text-align: right;">Spec. No. Bd.F.11 Page No. 304 and B7, page no. 38</p>	40.00	Cu.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
10	<p>Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.</p> <p>Spec. No. Bd.F.17, Page No. 306</p>	120.00	M.T.			
11	<p>Providing and fixing during laying in RCC Slab rectangular 2 mm thick M.S. sheet fan hook box of size 180x100 mm with required depth with holes or notches as required, bottom and top sides of 1.6 mm M.S. sheet fixed with 3.5 mm dia. round headed screws together with 12 mm dia. M.S. bar bent to shape with hooked ends for fan hook and painting to exposed surface.</p> <p>Spec. No. : As directed by Engineer-in-charge.</p>	50.00	No.			
12	<p>Providing fly ash brick masonry with conventional / I.S. type fly ash bricks in C.M. 1:6 in foundation and plinth including bailing out water manually striking joints, racking out joints watering and scaffolding etc. complete.</p> <p>Spec. No. : As directed by Engineer-in-charge and BDG - 2 and 5</p>	75.00	Cu.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
13	Providing fly ash brick masonry with conventional / I.S. type fly ash bricks in C.M. 1:6 insuperstructure including striking joints, racking out joints watering and scaffolding etc. complete. Spec. No. : As directed by Engineer-in-charge and BDG - 2 and 5	220.00	Cu.M.			
14	Providing Second class fly ash brick masonry with conventional / I.S. type bricks in cement mortar 1:4 in half brick thick wall including mild steel longitudinal reinforcement of two bars of 6 mm diameter / two hoop iron strips 25 mm x 1.60 mm at every third course, properly bent and bounded at ends scaffolding raking out joints and watering etc. complete. Spec. No. : BDG - 7 page 316	80.00	SQ.M			
15	Providing water proof bedding for flooring of Bath and WC 25 mm thick in C.M. 1:3 including using approved water proofing compound in specified proportion as per manufacturers specifications for per bag of cement including leveling, curing and covering 10 years guarantee on court fee stamp paper of Rs.500/- including ponding test etc. complete. Spec. no. (As directed by Engineer in Charge)	320.00	SQ.M			
16	Providing waterproof plaster in W.C. and bath 12 mm thick for dado in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 1 kg. per bag of cement of approved make and manufacturer and curing etc. complete. (Excluding Tiles) Spec. No. (As directed by Engineer in Charge)	100.00	SQ.M			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
17	Providing internal cement plaster 6 mm thick in a single coat in cement mortar 1:3 without neeru finish to concrete surface in all positions including scaffolding and curing etc. complete. Spec. No.Bd. L.1 Page No. 367	920.00	SQ.M			
18	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:5 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete. Spec. No. Bd. L.2 Page No. 368	2500.00	Sq.M.			
19	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete. Spec. No. Bd. L.7 Page No. 369	1250.00	Sq.M.			
20	Providing fine cement finish 1.5 mm thick over green plaster surface including scaffolding curing etc. complete. Spec. No. : As directed by Engineer-in-charge.	150.00	Sq.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
21	Providing and fixing chicken mesh / fiber mesh of 22 gauge, with about 30 cm. width at the junction of R.C.C members and brick work, of approved quality including fixing mesh in position by necessary drilling in concrete /B.B.masonry and or tying by binding wire etc. complete. Spec. No. : As directed by Engineer-in-charge.	800.00	Rmt.			
22	Providing and laying cement concrete flooring 50mm thick with M20 cement concrete laid to proper level and slope in alternate bays including compaction, filling joints, marking lines to give the appearance of tiles of 30cm x 30cm or other size laid diagonally/ square etc. finishing smooth (with extra cement) in any colour as directed and curing etc. complete. With Natural Sand. Spec. No. Bd. M. 6 Page No.381	150.00	Sq.M.			
23	Providing and laying in position flooring of telephone black / Amba White / Cat bary brown / Ruby red / Ocean Brown granite stone of approved shade and size 18 mm to 20 mm thick on bed 1:6 cement mortar including cement floats striking joints, pointing in C.M. 1:3 curing and cleaning etc. complete. Spec. No. Bd. M. 3B / Page No.380	820.00	SQ.M			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
24	Providing and fixing machine cut machine polished 18 mm to 20 mm thick telephone black / Amba White / Cat bary brown / RBI red / Ocean Brown granite stone for dado, skirting, treads and risers of steps and staircases of approved colour and shade with rounded moulding and three grooved line for the treads on bed of 1:4 Cement mortar including float filling joints with neat cement slurry curing polishing and cleaning etc. complete. Spec. No. Bd. M. 22 / Page No.390	570.00	SQ.M			
25	Providing structural steel work in trusses, other similar trussed purlins and members with all bracing, gusset plates etc. as per detailed designs and drawings or as directed including cutting, fabricating, hoisting, erecting fixing in position, Making riveted/ bolted/ welded connection and one coat of anticorrosive paint and over it 2 coats of oil painting approved quality and shade, with all necessary leads, lifts and scaffolding etc. complete, Spec. No. Bd. C . 8 / Page No.278	25.00	M.T.			
26	Structural steel work in trusses, other similar trussed purlins and members with all bracing, gusset plates etc. as per detailed designs and drawings or as directed including cutting, fabricating, hoisting, erecting fixing in position, Making riveted/ bolted/ welded connection and one coat of anticorrosive paint and over it 2 coats of oil painting approved quality and shade with all necessary leads, lifts and scaffolding etc. complete, . (Labour rate only) Spec. No. Bd. C . 8 / Page No. 278	35.00	M.T.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
27	<p>Providing and fixing of colour coated Zinc aluminium (R) AZ150 (min 150 gms/sq.mt. total on each side) profiled sheets for roofing and ridge. The feed material is manufactured out of nominal 0.45 mm Base Metal Thickness (BMT) (0.5 mm TCT), Hi-strength steel with min.550 MPa yield strength, metallic hot dip coated with Aluminium-Zinc alloy (55% aluminium 43.4% zinc 1.6% silicon) with COLORBOND (R) steel quality super durable polyester paint coat (with inorganic pigment). The paint shall have a total coating thickness of nominal 35 um, comprising of nominal 25um exterior coat on top surface and nominal 10 um reverse coat on back surface. Profile sheet shall have nom. 950-1050 mm effective cover width and nominal 25-30 mm deep ribs with subtle square fluting in the five pan at nominal 180-250 mm center-to-center. The end rib shall be designed for anti-capacity groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. including fasteners with min. fastened with min. 25 um Zinc-Tin alloy coated, Hex head, self-drilling screw etc. complete. (weight of profile 4.52 kg/sqm) 601 mm to 900 mm girth (Surface Width).</p> <p style="text-align: right;">Spec.</p>	750.00	Sq.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
28	<p>Fixing of colour coated Zinc aluminium (R) AZ150 (min 150 gms/sq.mt. total on each side) profiled sheets for roofing. The feed material is manufactured out of nominal 0.45 mm Base Metal Thickness (BMT) (0.5 mm TCT), Hi-strength steel with min.550 MPa yield strength, metallic hot dip coated with Aluminium-Zinc alloy (55% aluminium 43.4% zinc 1.6% silicon) with COLORBOND (R) steel quality super durable polyster paint coat (with inorganic pigment). The paint shall have a total coating thickness of nominal 35 um, comprising of nominal 25um exterior coat on top surface and nominal 10 um reverse coat on back surface. Profile sheet shall have nom. 950-1050 mm effective cover width and nominal 25-30 mm deep ribs with subtle square fluting in the five pan at nominal 180-250 mm center-to-center. The end rib shall be designed for anti-capacity groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. including fasteners with min. fastened with min. 25 um Zinc-Tin alloy coated, Hex head, self-drilling screw etc. complete. (weight of profile 4.52 kg/sqm) 601 mm to 900 mm girth (Surface Width). (Labour rate only) Spec No. As directed by Engineer in</p>	500.00	Sq.M.			
29	<p>Providing and fixing M40 grade thick vibrated pull cast or similar type concrete frame with chamfer conforming to I.S. 65241983 having 6 mm dia bars 3 Nos. And strips @250 mm c/c and fixing in wall with 6 Nos. of hold fast of 12 mm dia bars 500 mm long including primer and oil painting etc, complete) frame size 60 mm x 125 mm / 100 mm Spec. No.As directed by Engineer in charge.</p>	150.00	Rmt.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
30	Providing and fixing solid core flush door shutter in single / double leaf 32 mm thick decorative type of exterior grade as per detailed drawings, approved face teak veneers 3 mm thick on both faces or as directed, all necessary beads, mouldings and lipping, wrought iron hold fast, stainless steel fixtures and fastenings and handles on both sides and finishing with french polish etc. complete. BD-T-36 Page No. 500 and Spec. No. As directed by Engineer in charge.	60.00	Sq.M.			
31	Providing and fixing mild steel grill work for windows, ventilators etc. 20 kg/sqm as per drawing including fixtures, necessary welding and painting with one coats of anticorrosive paint and two coats of oil painting complete. Spec. No. BD-U-1 Page No. 537	150.00	Sq.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
32	<p>Providing and fixing in position (as per 1868 / 1982) Aluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 kg/Rmt. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 kg/Rmt.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 kg/Rmt. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 kg/Rmt. and handle and top section 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. As per detailed drawings and as directed by Engineerincharge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass and aluminium mosquito net shutter with stainless steel jail with all required screws and nuts etc, complete. With powder coating with box.</p> <p>Spec. No. As directed by Engineer in charge.</p>	100.00	Sq.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
33	<p>Providing and fixing collapsible steel gate in one / two leaves with hot rolled vertical channels of 18 x 9 x 3 mm minimum size, crossings of M.S. flats of size 18 x 5 mm T or E section for runner of minimum 40 x 6 mm size for flange, M.S. flat for top runner of minimum size 40 x 12 mm with roller wheels conforming to grade F.G. 150 fitted with snap headed rivets of minimum size 6 mm max. spacing of vertical channels be 100 mm enclosed gate position and clear space of 150 mm between two sets of crossings with hold fasts, stoppers, spaces, handles, locking arrangement and one coat of red lead primer and oil painting etc. complete. (I.S. 105211983).</p> <p>Spec. No. BD-T-57 Page No. 511 and As directed by Engineer in charge.</p>	40.00	Sq.M.			
34	<p>Providing and Fixing mat finish stainless steel (of 302 grade) railing with top pipe of 50 mm dia. and vertical pipe of 38 mm dia at 0.60 m c/c or as required and horizontal pipes of 25 mm dia in three rows, all pipes of 2 mm thick including buffing,fabricating fixtures and fastening including pipe base of appropriate diameter and ball base of 75 mm dia above newel post of 75 mm diameter etc. complete (Prior approval of sample and brand by Ex.Engineer is necessary before use)</p> <p>Spec. No. As directed by Engineer in charge.</p>	80.00	Rmt.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
35	Providing and applying two coats of exterior acrylic emulsion paint ACE or eqivalent confirming to corresponding I.S. of approved manufacture and of approved colour to the plastered surfaces including cleaning ,preparing the plaster surface, applying primer coat ,scaffolding if necessary , and watering the surface for two days etc complete. Spec. No. As directed by Engineer in charge.	4000.00	Sq.M.			
36	Providing and applying primer coat for <i>internal</i> wall surface <i>and ceiling including scaffoldin</i> to receive oil bound distemper treatment etc. complete. Spec. No. As directed by Engineer in charge.	3500.00	Sq.M.			
37	Providing and applying plastic emulsion paint of approved quality, colour and shade to new surface in three coats including scaffolding, preparing the surface. (excluding primer coat) etc. complete. Spec. No. BDP 6 Page No. 414 As directed by Engineer in charge.	3500.00	Sq.M.			
38	Providing and applying putty to new plastered surfaces in two coats to receive approved paint in all positions including all materials,labour scaffolding and curing etc. complete. Spec. No. As directed by Engineer in charge.	3500.00	Sq.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
39	Providing and applying two coats of synthetic enamel paint of approved colour to new /old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete. Spec. No. BDO 5 Page No. 405 As directed by Engineer in charge.	500.00	Sq.M.			
40	Providing and fixing on walls/ ceiling/ floors, 15 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes weight of 1.48 Kg/metre with necessary fittings. remaking good the demolished portion and applying primer of anti-corrosive oil paint 2 coats Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. Spec. No. BDv 5 Page No. 551	420.00	Rmt.			
41	Providing and fixing on walls/ ceiling/ floors, 25 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes weight of 3.01 Kg/meter with necessary fittings . remaking good the demolished portion and applying primer of anti-corrosive oil paint 2 coats Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. Spec. No. BDv 5 Page No. 551	300.00	Rmt.			
42	Providing and fixing 15 mm dia. screw down bib/ stop tap of brass including necessary socket union nut complete. Spec. No. BDv 5 Page No. 551	10.00	No.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
43	Providing and fixing screw down 15 mm dia. wheeled stop tap of brass including necessary sockets/union nut complete. Spec. No. BDv 5 Page No. 555	5.00	No.			
44	Providing and fixing screw down 25 mm dia. wheeled stop tap of brass including necessary sockets/union nut complete. Spec. No. BDv 5 Page No. 555	5.00	No.			
45	Providing and fixing coloured glazed earthenware full stall type Urinal with P.V.C. flushing cistern of 5 liters capacity with fitting, inlet pipes and stop tap brackets for fixing the cistern 32mm dia. P.V.C. flush pipe with fittings and flushing arrangement including lead soil pipe, lead trap soil pipe connection up to the outside face of the wall. Spec. No. BDv 23 Page No. 562	4.00	No.			
46	providing and fixing oval type under counter wash hand basin of 16 inch x 22 inch size and of special colour shade having telephonic black / coloured granite of 180 mm thick stone black kadappa framework including chromium plated coupling bottle - Trap using CERA company or equivalent oval type wash basin model no 3448 as per detailed drawing or as directed by engg incharge etc complete. (Counter size 1.20 m x 0.60 m) Spec. No.As directed by Engineer in charge	14.00	No.			
47	Providing and fixing 10cm C.I. Nahani Trap including C.I. grating bend and piece of C.I. pipe upto the outside face of the wall complete. Spec. No. BDv 32 Page No. 567	20.00	No.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
48	<p>Providing and fixing European type white / Colour glazed earthenware water closet pan with UPVC seat and lid with chromium plated brass hinges and rubber buffers including UPVC and vent pipe up to the outside face of wall 10 liter enameled low level flushing cistern with fittings pipe stop tap brackets for fixing cistern 32 mm dia. UPVC flush pipe with fittings and clamps ,20 mm dia.UPVC overflow pipe ,mosquito proof couplings G.I. chain and pulley,with c.p. health fosset / water Jet and fitting including cutting and making good to the walls and floors testing etc. complete.(prior approval of sample and brand by Ex. Engineer is necessary before use)</p> <p>Spec. No. As directed by Engineer in charge.</p>	10.00	No.			
49	<p>Providing and fixing P.V.C. Rain water pipes of 110mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S. 13592-1992 including proper rainwater receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and number ,filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete. (The contractor shall give 3 yrs guarantee bond for payment)</p> <p>Spec. No. As directed by Engineer in charge.</p>	150.00	Rmt.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
50	Providing and fixing H.D.P container Syntex or alike one piece moulded water tank made out of low density polythylar and built corrugation including of delivery up to destination hoisting and fixing of accessories such as inlet, outlet overflow, gas pipe, ball cock etc. of all tanks capacity above 1000 to 20,000 litres. Spec. No. As directed by Engineer in charge	6000.00	litre			
51	Providing and fixing 75 mm dia stabiliser pipe/ P.V.C. soil vent/waste pipe and with necessary fixtures and fitting such as bends, tees, single junctions, slotted vent, clamps etc. complete. Spec. No. As directed by Engineer in charge	75.00	Rmt.			
52	Providing and fixing 100 mm dia stabiliser pipe/ P.V.C. soil vent/waste pipe and with necessary fixtures and fitting such as bends, tees, single junctions, slotted vent, clamps etc. complete. Spec. No. As directed by Engineer in charge	50.00	Rmt.			
53	Providing and fixing 15cm x 10cm salt glazed stoneware gully trap in cement concrete 1:4:8 outside the building including cast iron grating in the sink, connecting glazed stoneware pipe, brick masonry chamber with cast iron lid and cast iron grating for the gully trap. Spec. No. BDv.38 Page No. 572	5.00	No.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
54	Providing and laying 100 mm dia salt glazed stoneware pipe including fittings such as bends, tees, single junction, double junctions laying, jointing (including excavation and refilling the trenches) complete. Spec. No. BDv 39 Page No. 573	100.00	Rmt.			
55	Providing and laying 150 mm dia salt glazed stoneware pipe including fittings such as bends, tees, single junction, double junctions laying, jointing (including excavation and refilling the trenches) complete. Spec. No. BDv 39 Page No. 573	100.00	Rmt.			
56	Providing and constructing Brick Masonry Inspection Chamber 60cm x 45cm x 90cm including 1:4:8 cement concrete foundation 1:2:4 cement concrete channels half round G.S.W. pipes, Brick Masonry, plastering from inside and with frame fixed in cement concrete with R.C.C. Cover medium duty 140 kg with frame etc complete. Spec. No. BDv 43 Page No. 574	5.00	No.			
57	Providing and constructing Brick Masonry Inspection Chamber 90cm x 45cm x 90cm including 1:4:8 cement concrete foundation 1:2:4 cement concrete channels half round G.S.W. pipes, Brick Masonry, plastering from inside and with frame fixed in cement concrete with R.C.C. Cover medium duty 140 kg with frame etc complete. Spec. No. BDv 43 Page No. 574	5.00	No.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
58	Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete. Spec. No. As directed by Engineer in charge	14.00	No.			
59	Providing preconstructional antitermite treatment as per I.S. 6313 (Part-II) by treating the bottom surface and sides of excavation at the rate of 5 litres of emulsion concentrate of 1.0 percent of chlorophyrifos per square meter of surface area covering 10 years guarantee on bond paper. Spec. No. As directed by Engineer in charge	2000.00	SQ.M.			
60	Providing preconstructional antitermite treatment as per I.S. 6313 (Part-II) by treating the top surface of plinth filling at the rate of 5 litres of emulsion concentrate at 1.0 percent of clorophyrifos per square metre of surface area covering ten years guarantee on bond paper. Spec. No.As directed by Engineer in charge	900.00	SQ.M.			
61	Filling in plinth and floors with approved excavated material in 15cm. to 20cm. layers including watering and compacting etc. complete. Spec. No. Bd.A.10 Page No. 262	250.00	Cu.M.			
62	Providing and filling in the foundation with sand /murrum /stonedust etc. of approved quality including watering, compacting etc. complete. (To be executed with prior approval of Superintending Engineer) Spec. No. Bd.A.13 Page No. 264	450.00	Cu.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
63	Providing and fixing heavy duty RUBBER MOULDED GLOSSY Coloured inter locking concrete paving blocks of 60 mm thickness of having a strength of 300 kg/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete. Spec. No. As directed by Engineer in charge	600.00	Sq.M.			
64	Providing, Supplying and fixing in position anodised extruded aluminium section of size 83 x 38 mm or as required for aluminium composite panelling including sheet of thickness 4 mm and of approved shade and colour and all necessary fixtures, fastners, labours, scaffolding ,etc. complete Spec. No. As directed by Engineer In-Charge.	100.00	Sq.M.			
65	Providing, Supplying and fixing in position anodised extruded aluminium sections for glass curtain wall or structural glazing frame size 83 x 38 mm or as required size and all necessary all necessary fixtures such as anchor fasteners, insert plate including fixing 5.5 mm thick one way mirror glass of approved colour and shade with neoprene /EPDM gasket etc. including labour, scaffolding complete. Spec. No.: As directed by Engineer-In-Charge.	210.00	Sq.M.			
66	Dismantling flat wooden or A.C. Sheet ceiling / wall panelling with frame work including stacking the materials as directed with all leads, lifts etc. complete. Spec. No. Bd.W.8 Page No. 587	900.00	Sq.M.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
67	Dismantling brick masonry in lime or cement mortar and stacking the materials as directed with all leads, lifts etc. Spec. No. As directed by Engineer-In-Charge.	200.00	Cu.M.			
68	Dismantling the R.C.C. Work 1:2:4 and sorting out the materials such as steel etc. as directed and stacking them within the specified lead as directed etc. complete. Spec. No. As directed by Engineer-In-Charge	60.00	Cu.M.			
69	Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete. Spec. No. As directed by Engineer-In-Charge	30.00	No.			
70	Removing G.I. sheet roof / single country tiled roof with battens and stacking the materials as directed with all leads and lifts etc. complete. Spec. No. As directed by Engineer-In-Charge	500.00	Sq.M.			
71	Removing R.S. girders, trusses, purlins of any size and span lowering the same and stacking neatly wherever directed in the compound scaffolding etc. complete. Spec. No. As directed by Engineer-In-Charge	15.00	M.T.			

Item no.	Description	Estimated Qty.	Unit	Rate in ₹		Amount in ₹
				(in figure)	(in words)	
72	Removing trees of various diameters and height from bottom of roots and replanting it at desired locations without damaging the roots by mechanical means including necessary excavation, filling of soil and all leads, lifts etc. complete. Spec. No. As directed by engineer incharge.	5.00	No.			
73	Supplying and Fixing of GRC Glass Reinforced Concrete jali of 1500 mm wide and 35 mm thick in continuation as per Architect's design in white with all necessary hardware, fittings, finishing, grinding work with scaffolding etc. complete. As directed by engineer incharge.	60.00	Sq.M.			
				Total Contract Amount ₹		

Plus GST as applicable

Contractor


Director

VISVESVARAYA NATIONAL INSTITUTE OF TECHNOLOGY , NAGPUR.

SCHEDULE-B

Name of Work : Refurbishment for maintenance and upkeep of Auditorium (Phase-I) at VNIT

Item No.	Description	Estimated Qty	Unit	Rate in Rs.		Amount in Rs.
				(In figure)	(In words)	
1	Supplying & erecting HMS P.V.C. conduit 25 mm. dia. With necessary accessories in wall/floor with chiselling appropriately as per specification No: WG-MA/CC.	500	Mtrs.			
2	Supplying & erecting HMS P.V.C. conduit 32 mm. dia. with necessary accessories in wall/floor with chiselling appropriately as per specification No: WG-MA/CC.	667	Mtrs.			
3	Supplying and erecting UPVC reinforced flexible conduit 20 mm in dia. conforming to I.S. with required number of couplings, PVC bushes, check nuts etc. complete.	25	Mtrs.			
4	Supplying and erecting UPVC reinforced flexible conduit 25 mm in dia. conforming to I.S. with required number of couplings, PVC bushes, check nuts etc. complete.	25	Mtrs.			
5	Supplying and erecting UPVC reinforced flexible conduit 31/32 mm in dia. conforming to I.S. with required number of couplings, PVC bushes, check nuts etc. complete.	15	Mtrs.			
6	Supplying and erecting HMS PVC conduit 20 mm dia. With PVC accessories on wall / ceiling as per specification No: GMA/CON.	220	Mtrs.			

7	Supplying and erecting HMS PVC conduit 25 mm dia. with PVC accessories on wall /ceiling as per specification No: WG MA/CON.	340	Mtrs.			
8	Supplying and erecting HMS PVC conduit 32 mm dia. with PVC accessories on wall / ceiling as per specification No: WG-MA/CON.	680	Mtrs.			
9	Supplying and erecting PVC trunking (PVC casing-ncapping) of size 32 mm with accessories on wall/ceiling as per specification No: WG- MA/CON.	205	Mtrs.			
10	Supplying and erecting PVC trunking (PVC casing-ncapping) of size 40 mm with accessories on wall/ceiling as per specification No: WG- MA/CON.	30	Mtrs.			
11	Supplying & erecting UPVC gland/ adaptor suitable for 20 mm dia pvc pipe.	12	Nos.			
12	Supplying & erecting UPVC gland/ adaptor suitable for 25 mm dia pvc pipe.	20	Nos.			
13	Supplying & erecting UPVC gland/ adaptor suitable for 31/32 mm dia pvc pipe.	10	Nos.			
14	Supplying & erecting mains with 2x1.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit /trunking /inside pole/Bus bars or any other places as per specification No: WGMA/BW	800	Mtrs.			
15	Supplying & erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit /trunking /inside pole/Bus bars or any other places. as per specification No: WGMA/ BW	800	Mtrs.			
16	Supplying & erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit /trunking /inside pole/Bus bars or any other places. as per specification No: WGMA/ BW	600	Mtrs.			

17	Supplying & erecting mains with 2x6 sq.mm FRLSH copper PVC insulated wire laid in provided conduit /trunking /inside pole/Bus bars or any other places. as per specification No: WGMA/ BW	400	Mtrs.			
18	Supplying & erecting mains with 2x10 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WGMA/ BW	50	Mtrs.			
19	Supplying & erecting mains with 4x16 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WGMA/ BW	29	Mtrs.			
20	Supplying & erecting mains with 4x25 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WGMA/ BW	26	Mtrs.			
21	Supplying and erecting modular type switch 6A / 10A ISI mark approved make duly erected on provided plate and box with wiring connections complete.	5	Nos.			
22	Supplying and erecting modular type switch 16A ISI mark approved make duly erected on provided plate and box with wiring connections complete.	38	Nos.			
23	Supplying and erecting modular type bell-push with indicator 2 modules 6A / 10A ISI mark approved make duly erected on provided plate and box with wiring connections complete.	4	Nos.			
24	Supplying and erecting modular type Two way switch 6A / 10A (2Module) ISI mark, approved make, duly erected on provided plate and box with wiring connections complete.	4	Nos.			

25	Supplying and erecting modular type 3 pin 6 / 16A multi socket with safety shutter ISI mark approved make duly erected on provided plate and box with wiring connections complete.	5	Nos.			
26	Supplying and erecting modular type electronic step regulator for fan two module ISI mark approved make duly erected on provided plate and box with wiring connections complete.	20	Nos.			
27	Supplying and erecting PVC Surface modular switch box with double mounting plate for 1 module complete duly erected in an approved manner.	6	Nos.			
28	Supplying and erecting PVC Surface modular switch box with double mounting plate for 2 module duly erected in an approved manner.	6	Nos.			
29	Supplying and erecting PVC Surface modular switch box with double mounting plate for 3 module duly erected in an approved manner.	12	Nos.			
30	Supplying and erecting PVC Surface modular switch box with double mounting plate for 4 module duly erected in an approved manner.	3	Nos.			
31	Supplying and erecting PVC Surface modular switch box with double mounting plate for 6 module duly erected in an approved manner.	6	Nos.			
32	Supplying and erecting PVC Surface modular switch box with double mounting & front plate for 8 module complete duly connected.	9	Nos.			
33	Supplying and erecting PVC Surface modular switch box with double mounting plate for 12 module duly erected in an approved manner.	13	Nos.			
34	Supplying and erecting PVC Surface modular switch box with double mounting plate for 16 / 18 module duly erected in an approved manner.	6	Nos.			

35	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 1 module duly erected flush to wall with required chiseling and finishing with cement mortar / POP as per required to match the background in an approved manner.	6	Nos.			
36	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 2 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background in an approved manner.	6	Nos.			
37	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 3 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background in an approved manner.	12	Nos.			
38	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 4 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background in an approved manner.	2	Nos.			
39	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 6 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background in an approved manner.	2	Nos.			
40	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 8 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background in an approved manner.	9	Nos.			

41	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 12 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background in an approved manner.	4	Nos.			
42	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 16 / 18 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background in an approved manner.	6	Nos.			
43	Supplying and erecting Modular type 5 pin socket with safety shutters 3 module socket 6A. 240V AC supply, ISI approved and marked make duly erected on provided plate and box with wiring connections complete duly erected in approved manner.	20	Nos.			
44	Point wiring for light/fan/bell in 20 mm rigid PVC conduit with 1.0 sq.mm FRLS grade Copper wire with flush type switch and required accessories as per specification No: WG-PW/SW	10	Nos.			
45	Wiring for plug on board with Switch socket with copper wiring and earthing as per specification No: WG-PW/SW	12	Nos.			
46	Wiring for plug on board with Switch socket concealed type and copper wiring, earthing and with modular accessories as per specification No: WG-PW/CW	20	Nos.			
47	Wiring for plug on board with Modular type Switch socket concealed type 3 pin 6 / 16A multi socket with safety shutter and copper wiring, earthing and with modular accessories as per specification No: WG-PW/CW	10	Nos.			

48	Point wiring in ISI mark HMS PVC conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire, modular type switch, earthing and required accessories as per specification No: WG-PW/SW	60	Nos.			
49	Point wiring for independent plug in ISI mark HMS PVC conduit with 1.5 sq.mm (2+1E)FR LSH grade copper wire, modular type switch, earthing and required accessories as per specification No: WG-PW/SW	5	Nos.			
50	Point wiring Modular for independent plug in PVC trunking (casing- capping) with 1.5 sq.m FRLSH grade copper wire with flush type switch and required accessories as per specification No: WG-PW/SW	5	Nos.			
51	Concealing provided M.S./ PVC switch box in wall with finishing in an approved manner as per specification No: WG-PW/CW	2	Nos.			
52	Refilling the holes for dismantled point wiring with cement mortar & finishing in an approved manner.	5	Nos.			
53	Dismantling the existing Aluminium/copper mains,sub-mains wiring upto 300 sq.mm. along with accessories etc.Complete as per specification No: WG-DM/PW	10	Nos.			
54	Supplying & erecting 5W-7W, 230V integral type LED Lamp suitable for B 22/E-27 base.	1	Nos.			
55	Supplying & erecting 14W, 230V integral type LED Lamp suitable for B-22/E-27 base	14	Nos.			
56	Supplying & erecting 10-12W, 230V integral type LED Lamp suitable for B 22/E-27 base.	14	Nos.			
57	Supplying & erecting ready to use retrofit T8 LED 18-20W tube light with heat sink, integrated HF electronic driver complete & compatible to T8 (36W) / T12 (40W) luminaire by disconnecting starter & ballast if necessary.	14	Nos.			

58	Supplying & erecting LED 18W tube light fitting (4 feet) with polycarbonate housing, heat sink, integrated HF electronic driver complete.	14	Nos.			
59	Supplying and erecting LED square / circular 5 to 8W downlighter having pressure die-cast aluminium housing, opal translucent cover, mounting arrangement with board for surface type or spring loaded mounting clips for flush type complete.	8	Nos.			
60	Supplying and erecting LED square / circular 9 to 12W downlighter having pressure die-cast aluminium housing, opal translucent cover, mounting arrangement with board for surface type or spring loaded mounting clips for flush type complete	10	Nos.			
61	Supplying and erecting LED square / circular 13 to 15W downlighter having pressure die-cast aluminum housing, opal translucent cover, mounting arrangement with board for surface type or spring loaded mounting clips for flush type complete.	13	Nos.			
62	Supplying and erecting LED square / circular 16 to 20W downlighter having pressure die-cast aluminium housing, opal translucent cover, mounting arrangement with board for surface type or spring loaded mounting clips for flush type complete	8	Nos.			
63	Supplying and erecting square shaped CRCA /die-cast aluminium powder coated housing LED Panel light (slim edge-lit) 600X600mm suitable for 36 W-40W with provision for plane front frame with translucent cover fixed to the housing complete	25	Nos.			

64	Supplying and erecting rectangular shaped CRCA /die-cast aluminium powder coated housing LED Panel (slim edge-lit) 300X1200mm of suitable for 36 to 40 W with provision for plane front frame with translucent cover fixed to the housing complete.	3	Nos.			
65	Supplying LED concealed type foot / step light with PVC body for indoor application suitable for upto 5 W LED including driver and erecting by making necessary arrangement/recess in wall to make it flush with surface	10	Nos.			
66	Making suitable size recess in any type of false ceiling for erection of flush type down lighter and finishing the background to match the original surface upto 20W	10	Nos.			
67	Making suitable size of recess in any type of false ceiling for erection of flush type LED Panel light 600mm x 600mm and finishing the background to match the original ceiling surface.	5	Nos.			
68	Supplying and erecting LED Flood light fitting of 30-40W , including lamp, with PF > 0.95, class IP 65 and above class IP 65 and above Housing of pressure die cast alluminium alloy and heat sink extruded alluminium complete per specification No FG-ODF/FLS-2	8	Nos.			
69	Supplying and erecting Street light bracket for erection of side entry fitting on pole with 40 mm. dia. 'B' grade G.I. pipe of required length complete as per specification no. FG-ODF/SLB	2	Nos.			
70	Supplying and erecting LED street light fitting suitable above 26W to 36W lamp, including lamp, with PF > 0.95 class IP 65 and above Housing of pressure die cast alluminium alloy and heat sink extruded alluminium complete as per specification No FG-ODF/FLS2	2	Nos.			

71	Supplying & fixing Anchor type fastener Fan hook , with 2 Nos of 10 mm dia x 75 mm long with necessary materials for Ceiling Fan.	12	Nos.			
72	Supplying and erecting fan clamp of 30 x 5 mm. M.S. flat of required length and 10 mm. M.S. bolt and nuts erected with necessary hook of 10 mm. M.S. round bar and painted.	2	Nos.			
73	Supplying and erecting Fan hook of 10 mm. M.S. round bar grouted in RCC slab with making the site as original.	16	Nos.			
74	Supplying and erecting fan hook box of 10 mm M.S. round bar bounded to the R.C.C. bars upto 50 mm length each side and pierced through a 16 S.W.G. thick aluminium/M.S. Bowl 100 mm dia. or equivalent square size and having depth upto 75 mm complete erected with duly painted by one coat of red oxide paint and two coats of paint erected in position and without any leakage of slurry of cement concrete on either side of the box and positioned to the bottom level of the slab.	10	Nos.			
75	Supplying and erecting 'B' grade G.I.pipe/M.S. pipe down rod duly painted for fan complete erected with PVC two core flexible cable 24/0.2 mm copper PVC wire.	15	Nos.			
76	Supplying and erecting Five Star Rated Energy Saving Ceiling Fan 230 V A.C. 50 cycles 1400 mm complete erected in position as per specification no. FG-FN/CF	20	Nos.			
77	Supplying and erecting cabin fan of A.C. 230 V. 50 cycles 400 mm. sweep complete with necessary brackets for fixing cabin fans, wire etc and marking Sr. No. and date of erection.	6	Nos.			
78	Supplying and erecting Exhaust fan heavy duty 230 V A.C. 50 cycles 450 mm. 900 RPM complete erected in position as per specification no. FG-FN/EXF	6	Nos.			

79	Supplying and erecting Exhaust fan heavy duty 440 V A.C. 50 cycles 900 RPM 375/380 mm complete erected in position as per specification no. FG-FN/EXF	2	Nos.			
80	Providing and erecting air circulator 450 mm. sweep oscillating type, wall mounting 1440 RPM without speed regulator, overheat protection unit, totally enclosed, flame proof motor suitable for 230/250 Volts single phase, 50 cycles A.C. supply, with one metre of 3 core lead wire and with moisture proof treatment to winding and with 'E' class insulation and marking Sr. No. and date of erection.	2	Nos.			
81	Supplying & erecting on load Four pole Iron clad/metal clad ON LOAD change over switch 320A, 415/500V erected on angle iron frame approved make.	1	Nos.			
82	Supplying, erecting & marking SPMCB 6A to 32A, B-series (for lighting) in provided distribution board as per specification No. SW- SWR/MCB	145	Nos.			
83	Supplying, erecting & marking SPMCB 40A to 63A, B-series (for lighting) in provided distribution board as per specification No. SW- SWR/MCB	24	Nos.			
84	Supplying, erecting & marking DPMCB 6 A to 32 A B-series (for lighting) in provided distribution board as per specification no. SW- SWR/MCB	60	Nos.			
85	Supplying, erecting & marking DPMCB 40A to 63A, B-series (for lighting) in provided distribution board as per specification No. SW- SWR/MCB	22	Nos.			
86	Supplying, erecting & marking FPMCB 6A to 32A in provided distribution board as per specification No. SW-SWR/MCB	14	Nos.			

87	Supplying, erecting & marking FPMCB 40A to 63A in provided distribution board as per specification No. SW-SWR/MCB	25	Nos.			
88	Supplying & erecting triple pole and neutral distribution board (TPNDB) with door surface/ flush mounted SPMCB of 12 ways , on iron frame/wooden board.(Horizontal type) as per specification No. SW-SWR/MCBDB	5	Nos.			
89	Supplying & erecting triple pole and neutral distribution board (TPNDB) with door surface/ flush mounted SPMCB of 24 ways , on iron frame/wooden board.(Horizontal type) as per specification No. SW-SWR/MCBDB	2	Nos.			
90	Supplying & erecting triple pole and neutral distribution board (TPNDB) with door surface/ flush mounted SPMCB of 12 ways (36 Poles) on iron frame/wooden board. (Horizontal Busbar type) as per specification no. SW-SWR/MCBDB	3	Nos.			
91	Supplying & erecting powder coated CRCA sheet metal one way enclosures suitable for D.P.M.C.B. /T.P. M.C.B. /F.P M.C.B. complete erected on angle iron frame. (make L&T, Legrand)	4	Nos.			
92	Providing & erecting 4 Pole MCCB upto 100A, 415V capacity with S.C. rating 25 kA (Ics=100% of Icu) , thermal setting with provided leads on iron frame/wooden board as per specification No. SW-SWR/MCCB	11	Nos.			
93	Providing & erecting 4 Pole MCCB of 200A,415V capacity with S.C. rating 25 kA (Ics=100% of Icu) thermal and magnetic setting with provided leads on iron frame/wooden board as per specification no. SW-SWR/MCCB	6	Nos.			
94	Providing & erecting 4 Pole MCCB of 250A,415V capacity with S.C. rating 36 kA (Ics=100% of Icu) ,thermal and magnetic setting with provided leads on iron frame/wooden board as per specification No. SW-SWR/MCCB	2	Nos.			

95	Supplying & erecting powder coated CRCA sheet metal enclosures suitable for 4 Pole MCCB suitable for 100A to 250A . complete erected on angle iron frame. (make L&T,Legrand)	5	Nos.			
96	Supplying and erecting terminal spreaders for use on MCCB incoming and outgoing terminals for 4 pole upto 100A MCCB.	88	Nos.			
97	Supplying and erecting terminal spreaders for use on MCCB incoming and outgoing terminals for 4 pole upto 250A MCCB.	24	Nos.			
98	Providing, erecting and commissioning 2 pole RCCB only of electromagnetic type with 30/100/300 mA sensitivity and having capacity of 16/ 25A complete as per specification no. SWRCCB/ RCCB	6	Nos.			
99	Providing, erecting and commissioning 2 pole RCCB only of electromagnetic type with 30/100/300 mA sensitivity and having capacity of 40A complete as per specification no. SWRCCB/ RCCB	6	Nos.			
100	Providing, erecting and commissioning 2 pole RCCB only of electromagnetic type with 30/100/300 mA sensitivity and having capacity of 63A complete as per specification no. SWRCCB/ RCCB	4	Nos.			
101	Providing, erecting and commissioning 4 pole RCCB only of electromagnetic type with 30/100/300 mA sensitivity and having capacity of 16/25A complete as per specification no. SWRCCB/ RCCB	2	Nos.			
102	Providing, erecting and commissioning 4 pole RCCB only of electromagnetic type with 30/100/300 mA sensitivity and having capacity of 40A complete as per specification no. SWRCCB/ RCCB	3	Nos.			

103	Providing, erecting and commissioning 4 pole RCCB only of electromagnetic type with 30/100/300 mA sensitivity and having capacity of 63A complete as per specification no. SWRCCB/ RCCB	4	Nos.			
104	Providing, erecting & commissioning 4 pole RCCB of electromagnetic type with 30/100/300 mA sensitivity and having capacity of 100A, complete as per specification no. SWRCCB/RCCB	1	Nos.			
105	Supplying & erecting approved make porcelain/epoxy bus bar support complete erected in provided M.S. box for 200/300A	16	Nos.			
106	Supplying and erecting extended rotary handle for MCCB with adjustable telescopic rod suitable for upto 200A MCCB.	8	Nos.			
107	G.I. powder coated (gray or Pale white color) sheet 1.25 mm (18 gauge) to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, rivetting etc. and with angle base painting with one coat of red lead paint and 2 coats of enamel paint.	10	m ²			
108	Supplying and erecting GI sheet 1.6 mm (16 SWG) caution board of size 200 x 150 mm duly painted with red oxide and enamel paint in Marathi and Hindi erected at position for medium voltage installation.	30	m ²			
109	Supplying and erecting self locking arrangement with duplicate keys, made of brass duly erected, flush with surface of panel/cupboard.	42	Nos.			
110	Supplying and erecting Bus bar chamber triple pole with neutral with four Copper bars , 500V, 100A complete as per specification no. CP-BB	2	Mtr.			
111	Supplying and erecting Bus bar chamber triple pole with neutral with four Copper bars , 500V 200A complete as per specification no. CP-BB	2	Mtr.			

112	Supplying & erecting of required size Electrolyte Copper Flexible Braided bus Patti or bar in bus bar chamber/in panel or any other purpose, suitable for 500 volt with, 200 to 300 Amp current capacity with 99.9% copper purity with fixing arrangement (like lug or bottle type lug) to both the end with high grade polyolefin insulation sleeve complete as per specification no. BCP-BB	20	Kg			
113	Supplying and erecting panel mounting type digital voltmeter having three and half digit LED display, calibrated for 0 to 750V AC suitable to operate on 500V AC supply with necessary PVC wire leads and lugs and mounting hardware on provided panel complete with calibration certificate from manufacturer.	2	Nos.			
114	Supplying and erecting panel mounting type digital ammeter having three and half digit LED display, external CT operated, calibrated for suitable to operate on 500V, 0 to 1000A AC supply with necessary PVC wire leads and lugs and mounting hardware on provided panel complete with calibration certificate from manufacturer.	2	Nos.			
115	Supplying and erecting Three phase smart energy meter DLMS compliance with 3x240V 50 cycles AC supply 10-60 A, ISI mark, accuracy class 1.0 with backlit LCD display, measuring & display V, I, kW, kWh, PF, kVA, kVAr, MD, day, week, month & with communication module configurable for GSM/Wi-Fi, IrDA/Bluetooth, complete provided panel with calibration certificate from manufacturer & duly wired with required size of PVC wires.	1	Nos.			

116	Supplying and erecting single phase smart energy meter DLMS compliance with 240V 50 cycles AC supply 5-30 A, ISI mark, accuracy class 1.0 with backlit LCD display, measuring & display kWh, V, I, kW, day, week, month & with communication module configurable for GSM/Wi Fi, IrDA/Bluetooth, complete provided panel with calibration certificate from manufacturer & duly wired with required size of PVC wires.	17	Nos.			
117	Providing and erecting L.T. Current Transformer with bar primary 50/5 to 1000/5 ratio with 15VA burden erected in provided CRCA box duly secured with insulating materials connected to the meter with test certificates.	18	Nos.			
118	Supplying & erecting LED type indicating pilot lamp with LED colours Red / Yellow / Green , 230 / 250V on provided box / panel with necessary material, wiring & connections etc.	12	Nos.			
119	Supplying, erecting & terminating XLPE armoured cable 4 core 10 sq. mm. aluminium conductor with continuous 5.48 sq. mm. (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	25	Mtrs.			
120	Supplying, erecting & terminating XLPE armoured cable 4 core 16 sq mm aluminium multistranded conductor with continuous 5.48 sq mm (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB- LT/AL	60	Mtrs.			
121	Supplying, erecting & terminating XLPE armoured cable 3½ core 25 sq. mm. aluminium conductor with continuous 5.48 sq. mm. (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	75	Mtrs.			

122	Supplying, erecting & terminating XLPE armoured cable 3½ core 50 sq mm aluminium multistranded conductor with continuous 5.48 sq mm (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB- LT/AL	20	Mtrs.			
123	Supplying, erecting & terminating XLPE armoured cable 3½ core 120 sq mm aluminium multistranded conductor with continuous 12.97 sq mm (8 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	20	Mtrs.			
124	Supplying, erecting & terminating XLPE armoured cable 3½ core 150 sq mm aluminium multistranded conductor with continuous 12.97 sq mm (8 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	10	Mtrs.			
125	Supplying, erecting & terminating XLPE armoured cable 1100 V. 3½ core 185 sq mm aluminium multistranded conductor with continuous 12.97 sq mm (8 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	30	Mtrs.			
126	Supplying, erecting & terminating XLPE armoured cable 3½ core 240 sq mm aluminium multistranded conductor with continuous 12.97 sq mm (8 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB- LT/AL	750	Mtrs.			

127	Providing & erecting epoxy straight through joint outdoor/indoor for LT PVC armoured cable 25 to 50 sq mm. cable, with necessary material as per specification No. CB-JT/LT	5	Nos.			
128	Providing & erecting epoxy straight through joint outdoor/indoor for LT PVC armoured cable 120 to 185 sq mm cable, with necessary material as per specification No. CB-JT/LT	5	Nos.			
129	Providing & erecting epoxy straight through joint outdoor/indoor for LT PVC armoured cable 240 sq.mm. cable, with necessary material as per specification No. CB-JT/LT	2	Nos.			
130	Supplying & erecting G.I. pipe 'A' class 75 mm dia. erected for enclosing PVC armoured cable on wall/pole as per specification No. CW-PLB/GP, para 4.2.1 & 4.2.2 (Chapter 17.5)	10	Mtrs.			
131	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 50 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete.	20	Mtrs.			
132	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 90 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete.	10	Mtrs.			
133	Supplying & erecting G.I. pipe 'A' class 75 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE	20	Mtrs.			
134	Supplying & erecting Siemens type brass cable glands for 3 to 4 core 6 sq mm /2 to 4 core 10 sq mm for XLPE armoured cable as per specification No. CB-GL	30	Nos.			
135	Supplying & erecting Siemens type brass cable glands for 3 to 4 core 16 sq mm /3 to 4 core 25 sq mm /3 core 35 sq mm for XLPE armoured cable as per specification No. CB-GL	6	Nos.			

136	Supplying & erecting Siemens type brass cable glands for 4 core 50 sq mm for XLPE armoured cable as per specification No. CB-GL	6	Nos.			
137	Supplying & erecting Siemens type brass cable glands for 3½ core 120 sq mm for XLPE armoured cable as per specification No. CB-GL	6	Nos.			
138	Supplying & erecting Siemens type brass cable glands for 3½ core 150 sq mm for XLPE armoured cable as per specification No. CB-GL	6	Nos.			
139	Supplying & erecting Siemens type brass cable glands for 3½ core 185 sq mm for XLPE armoured cable as per specification No. CB-GL	6	Nos.			
140	Supplying & erecting Siemens type brass cable glands for 3½ core 240 sq mm for XLPE armoured cable as per specification No. CB-GL	6	Nos.			
141	Supplying & erecting crimping type copper lugs for cable upto 16 sq mm complete as per specification No. CB-CL/CU	1240	Nos.			
142	Supplying & erecting crimping type copper lugs for cable 25 sq mm complete as per specification No. CB-CL/CU	52	Nos.			
143	Supplying & erecting crimping type copper lugs for cable 35 sq mm complete as per specification No. CB-CL/CU	12	Nos.			
144	Supplying & erecting crimping type copper lugs for cable 50 sq mm complete as per specification No. CB-CL/CU	12	Nos.			
145	Supplying & erecting crimping type aluminium lugs for cable upto 16 sq mm complete as per specification No. CB-CL/AL	20	Nos.			
146	Supplying & erecting crimping type aluminium lugs for cable 25 sq mm complete as per specification No. CB-CL/AL	20	Nos.			
147	Supplying & erecting crimping type aluminium lugs for cable 50 sq mm complete as per specification No. CB-CL/AL	20	Nos.			

148	Supplying & erecting crimping type aluminium lugs for cable 70 sq mm complete as per specification No. CB-CL/AL	20	Nos.			
149	Supplying & erecting crimping type aluminium lugs for cable 120 sq mm complete as per specification No. CB-CL/AL	20	Nos.			
150	Supplying & erecting crimping type aluminium lugs for cable 150 sq mm complete as per specification No. CB-CL/AL	20	Nos.			
151	Supplying & erecting crimping type aluminium lugs for cable 185 sq mm complete as per specification No. CB-CL/AL	20	Nos.			
152	Supplying & erecting crimping type aluminium lugs for cable 240 sq mm complete as per specification No. CB-CL/AL	20	Nos.			
153	Providing & erecting Hot deeped Galvanised Ladder type Cable tray manufactured from 16 swg (1.6 mm thick) GI sheet of 300 mm width & 100 mm height comprising all required standard accessories.	4	Mtrs.			
154	Providing & erecting Hot deeped Galvanised Perforated type Cable tray manufactured from 16 swg (1.6 mm thick) GI sheet of 150 mm width & 75 mm height complete with necessary coupler plates & hardware in approved manner.	2	Mtrs.			
155	Supplying and erecting pin type LT medium insulator 100 mm x 62 mm dia. with suitable G.I. spindle, nut, bolts complete erected.	32	Nos.			

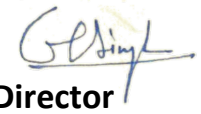
156	Supply, Installation, Testing and commissioning of UL Certified / CPRI Tested Maintenance Free Earthing comprising of Electrode of 17.2 mm diameter Low Carbon Steel with 250 micron Molecular Copper Bonded Earthing Rod of Length 3m along with 25 kg Carbon Based environment friendly back fill Ground Enhancin compound required to fill up the excavated earth with required quantity as per specification no EA-MOBI	4	Nos.			
157	Providing earthing with Copper earth plate size 30 x 30 x 0.315 cm complete with all materials, testing & recording the results as per specification No. EA-EP	2	Nos.			
158	Supplying and erecting copper strip of required size used for earthing on wall and/or any other purpose with necessary copper clamps fixed on wall painted with bituminous paint in an approved manner with joints required. as per specification No (EA-EP).	16	Kg			
159	Supplying and erecting G.I. strip of required size used for earthing on wall and/or any other purpose with necessary GI clamps fixed on wall painted with bituminous paint in an approved manner with joint required. as per specification No (EA-EP).	135	Kg			
160	Supplying and erecting G. I. Earth Wire of high purity of different sizes used for earthing or any other purposes on wall with necessary G. I. Clamps fixed on wall/cable/ conduit with screws in an approved manner.	50	Kg			
161	Making trench of suitable width and depth in soft soil for laying provided LT cable up to and including 16 sq.mm complete as per specification no. CW-EXN-CTR	110	Mtrs.			

162	Making trench of suitable width and depth in hard murum / tar road for laying provided LT cable up to and including 16 sq. mm complete as per specification no. CW-EXN-CTR	20	Mtrs.			
163	Making trench of suitable width and depth in hard murum / tar road for laying provided LT cable of 16 sq. mm & above and covered with half round hume pipe complete as per specification no. CW-EXN-CTR	100	Mtrs.			
164	Making trench of suitable width and depth in soft soil for laying provided LT cable of 16 sq. mm & above and covered with half round hume pipe complete as per specification no. CW-EXNCTR	500	Mtrs.			
165	Making cement concrete foundation in 1:3:6 cement concrete, (20 to 25) mm. stone metal duly plastered with necessary curing for complete. (pole muffing or any other purpose).	8	m ³			
166	Supplying, Erection, Testing & Commissioning (SET&C) of Electric Traction Passenger Lift with (ARD system) <ul style="list-style-type: none"> • Rated capacity :- 13 Passenger/884Kg • Floors :- G+1 floor (2Stops/2 Landings) • Travel :- 3 to 4.2 mtrs. • Location of Lift Machine:- Machine Room Less (MRL) • Rated speed :- 1.0mps VS • Doors type :- COPO/TOPO Doors with frame having clear Please refer Annxure-1 of Detail Specifition of Electric Traction Passenger Lift Machine Room Less (MRL)	2	Nos.			
167	Supplying & erecting 4 module Modular AC box / POWER PLUG (MCB protected socket) box complete with box , 25 Amp MCB, Socket, 32 Amps Plug etc. suitable for 2 / 1.5 Ton Air Contioner(A.C) etc	4	Nos.			

168	Supplying erecting Automatic source transfer system with two 400 A, 50 kA, FP, MCCB's with microprocessor release, motorized changeover mechanism, auto manual selector, housed in sheet metal box of size 600x1200x400 mm fabricated out of 14 SWG (2mm), powder painted and mounted on angle iron stool of suitable height.	1	Nos.			
169	Supplying erecting LT main control panel, fabricated out of 14 SWG CRCA sheet steel, powder coated, floor mounting cubicle type, with 400 A, 4 pole, 50 kA, MCCB & Energy meter cum analyzer on incomer & 8 number TP MCCB as outgoing as per SLD and top entries for cables. All MCCB's will have microprocessor release.	1	Nos.			
170	Supplying erecting LT control panel, (location:- near Lift shaft) fabricated out of 14 SWG CRCA sheet steel, powder coated, floor mounting cubicle type, with 315 A, 3 pole, 36 kA, MCCB & Energy meter cum analyzer on incomer, 1 no. 250 A & 1 no. 160 A 25 kA MCCB as outgoing, 10 no. 6 - 32 A, TP MCB 10 kA as outgoing, 4 no. 6 - 32 A, SP MCB 10 kA as per SLD and top entries for cables. All MCCB's will have microprocessor release.	1	Nos.			
171	Supplying & erecting conventional spike type air termination suitable to carry lightning stroke made up of heavy gauge 40 mm dia copper pipe of standard length with 5 Nos. copper spikes fixed on copper ball as air terminals duly threaded in copper pipe erected on provided foundation in an approved manner.	2	Nos.			
	Total Amount in Rs.					Total Contract Amount In Rs.

Plus GST as applicable

Contractor



Director
VNIT , Nagpur