

S No.	Project Sub Head	Cost	Tendering by
1	2	3	4
6	Illumination Works at City Level	423.26	PPP
7	Digital Content QR Code, AR Content Website and App Integration	105.07	
8	Light and Sound Show at Citadel Complex_Orchha	876.45	
9.1	Museums and Interpretation in Orchha City including EV Charging	656.99	
9.2	Conservation and Interpretation at City Level	220.62	
	Net Total	2,282.40	
	Add GST @ 18%	410.83	
	Add Consultancy Charges@ 2%	45.65	
	Add Contingency Charges @ 3%	68.47	
	Total Overall Project Cost	2,807.35	
	Say(in crores)	28.07	

Madhya Pradesh State Tourism Development Corporation (MPSTDC)			
Orchha SASCI Projects			
Illumination Works			
Abstract			
S.no	DESCRIPTION OF ITEMS	Unit	Qty
	Part-A Based on- ELECTRICAL SOR- 2022		
1	Supplying and fixing rigid steel conduit ISI marked along with the accessories on surface including painting etc. as required		
1.1	20 mm	mtr	1500.00
1.2	25 mm	mtr	1000.00
1.3	25 mm	mtr	1000.00
2	Supplying and fixing PVC conduit as required confirming to IS 9537 (Part-3), ISI marked along with accessories on surface etc. as required.		
2.1	20 mm	R. mtr.	4100.00
2.2	25 mm	R. mtr.	3400.00
3	supply and drawing single core PVC insulated cable FRLS with copper multi strand conductor ISI marked in recessed/concealed rigid steel ISI marked conduit of satiable size (Conduit included) including accessories long neck threaded type connection painting etc. as required as per specification (Refer General Notes for Classification of Conduit wiring points No.10)		
2.1	3x2.5+1x1.5 sq. mm cable	mtr	12430.00
2.2	3x4+1x2.5 sq. mm cable	mtr	6000.00
3	SUPPLY OF XLPE INSULATED POWER CABLE (Conforming IS-7098 Part-I) 1100 Volt grade 1Core/2 Core/3-1/2 core /4 core isi marked with alu. Standed/ solid conductor		
3.1	4 core armoured		
3.2	6 sqmm	mtr	5450.00
3.3	10 sq. mm.	mtr	220.00
4	Cable laying		
4.1	Laying of one numer armoured/unarmoured power cable 1.1 kv grade of size not exceeding 25 sq. mm direct in ground including excavation in all soil/murum /soft rock sand crushing protective covering and refilling the pit etc. are Required.	mtr	5450.00
4.2	Laying of one number armoured /unarmoured power cable 1:1 KV grade of size not exceeding 25 sq. mm in the existing RCC hume/stone ware/G.I. pipe/ DWC Pipe/ surface in existing trench as required.	mtr	220.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
5	Providing, lowering, laying, aligning, fixing in position and jointing at all level/ depths full round HDPE DWC (double wall corrugated) pipes of SN8 grade as per IS 16098 (Part 2) amended upto date intrenches in complete including all material, labour, sectional hydrotesting (including the cost and conveyance of water to site for testing) and commissioning as per Technical Specifications, drawings and as per direction of Engineer. Note : E/w to be measured and paid separately. Length of pipe shall be measured in between the outer wall of two manholes / Inspection chambers. Pipe in the manhole/inspection chamber's wall shall deemed to be included in the item of manhole/inspection chamber shall not be payable		
5.1	50mm	mtr	6097.00
5.2	110 mm	mtr	3500.00
6	Supply, fabrication and erection of angle/channel/flat iron fitting for overhead line & sub-station etc such as 'D' bracket, cross arms, top clamp, 'V' cross arms, back/support clamp or other similar work etc. including nut bolts of required size, making holes, fabrication, welding, cutting, etc. and painting with one coat of red oxide paint & two coat of aluminium paint as required as per specification	Kg	2500.00
7	Supply and laying 4mm dia. copper wire at 0.5 metre below ground level as conductor earth electrode including soldering etc. as required.	Meter	60.00
8	Supply of ISI marked and accepted standard of miniature circuit breaker (MCB) of 'C' series with short circuit indication, suitable for 240/415 Volts, 50 Cycle, 10 kA/15 kA Value AC supply conforming to IS : 8828 : 1996, IEC : 60898 : 2002 & 60947-2 but without enclosures :-		
8.1	Single pole		
8.2	MCB SP 6Amp to 32Amp 10kA rating	Each	50.00
9	Double pole		
9.1	MCB DP For 40Amp 10kA rating	Each	20.00
10	Four pole		
10.1	MCB FP 6Amp to 32Amp 10kA rating	Each	9.00
11	Supplying of approved make TPN MCB DB metal double door IP 43 protection with provision for FP MCB/ Isolator/ RCCB/ RCBO as incomer and SP MCBs as outgoing inclusive of busbar, neutral bar, earth bar, connection copper wire not less than 16 sq.mm & two earth terminals etc. complete as per IS:13032(exclusive of MCB & isolator):		
11.1	4 Way (4+12)	Each	8.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
12	Supply and erection of approved make safe earthing electrode consisting pipe-in-pipe technology as per IS 3043-1987 made of corrosion free G.I. pipes with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for effective and maintenance free earthing in earth pit of minimum bore dia. 150mm size, as mentioned below :		
12.1	With 2 metre G.I. pipes having outer pipe dia of 50mm having 80-200 micron galvanizing, Inner pipe dia. of 25mm having 200-250 micron galvanizing, connection terminal dia. of 12mm in nominal soil with 25 kg (one Bag) back filling bentonite compound UL listed and confirm to relevant International/Indian standards around electrode upto ground level	Each	17.00
13	Providing back filling bentonite compound suitable for safe earthing device. The product should be UL listed and confirm to relevant International/Indian standards	Kg	250.00
14	Supply and installation of polycarbonate heavy duty pit cover tested for 5000Kg SWL for earth electrode at ground level size 300x300x155 mm with lockable lid.	Each	17.00
15	Controlcable: - Supply and laying, testing & commissioning of following sizes of copper conductor control cables on existing tray including fixing clamps & proper connections to equipment etc. complete as required		
15.1	4Cx 2.5 sq.mm	Rmt	130.00
15.2	4Cx 4 sq.mm	Rmt	140.00
	Total A		
	Part B Non-SOR		
1	SITC of Linear Wall Washer having 24W LED , compact and minimalist linear surface mounted / recessed designed for wall, Ceiling & floor mount. Having Beam angle 15° / 35°/ 15°x50°. Luminaire made of extruded aluminium alloy (grade 6063) of high corrosion resistance and non corrosive A2 stainless steel fasteners. Stainless steel mounting bracket with an adjustable feature from 0°-45° facilitate proper aiming of the luminaire at desired angle. Toughened glass. IP67 male and female connectors for easy series connection. Protection class IP65. Available colour temperature are 3000K / 4000K / 6500K, Colour rendering index (CRI)>80. SDCM≤ 3 MacAdam. LED module with expected service life of at least 54,000 operating hours. Constant voltage non integral power supply at 24Vdc assures safety. Luminaire having approx. dimension : 1000mm length x 34mm width x 52mm height. CE & BIS Certified. Inhouse NABL certification.	Nos	154

S.no	DESCRIPTION OF ITEMS	Unit	Qty
2	SITC of In-Ground 9W LED floor recess mounted compact in-ground luminaire. Having Beam angle 15°/ 25° / 40°. Pressure die-cast aluminium housing, Stainless steel top ring (grade 316) with clear toughened glass. Aluminium honey comb for glare free light distribution. ABS plastic installation housing for preparing the recess opening in ground. Single cable entrance via M10 cable gland. All external screws are made of stainless steel. Protection class IP67. Mechanical resistance IK09. Available colour temperature 3000K / 4000K / 6500K, Colour rendering index (CRI)>80. SDCM-3 MacAdam. LED module with expected service life of at least 60,000 operating hours. Prewired with LED driver and suitable for operating on 240V, 50Hz single phase ac supply. Driver efficiency >85%, Power factor >0.90, THD< 10%, Surge protection 2.5KV. Luminaire having approx. dimension : 116mm diameter x 153mm height. CE & BIS Certified. Inhouse NABL certification.	Nos	34
3	Supply , Installation testing and Commissioning of IP65 flexible Linear strip , Water & UV resistant flexible linear LED luminaire Having atleast 9W/mtr ,Complete with power supply as per architectural design requirement . The luminaire to include driver, connectors and surge protection devices .	Meter	3050
4	SITC of MINILED are compact IP67 , IK08 LED fittings suitable for down light, Wall recessed and walkover for both indoor & outdoor applications with small dimension flush mounting installation. It should be equipped with a screwless round front ring in STAINLESS STEEL with Narrow Beam / Asymmetric Beam / Medium Beam & Diffused Beam. These fixtures should be perfect for creating very defined effects of accent light. The body of the luminaire should be screwless from front ring and shall made from solid billet of 316 grade stainless steel, ensuring IP67 rating silicone seal gasket, with toughened clear glass diffuser 4mm thickness, clear polycarbonate optical lens. Luminaire must be hard wired with 2 x 0.5mm 2 cable of 0.5 metre length shall be supplied with mounting sleeve for preparing recessed opening in ground or wall. Having approx. wattage of 3W, with available temperature 3000K/2700K/4000K, CRI >80 .	Nos	16
5	Supply ,installation testing and commissioning of Surface mounted range of Decorative bracket 3 and 4 arm are a perfect for varied outdoor lighting applications. Aesthetically designed sturdy construction ensures a long life against all weather condition, maintaining initial performances through the lifetime of the installation. Decorative Bracket made of cast aluminium with scroll and leaf for aesthetics. Bracket coated with epoxy zinc phosphate primer and nished using environmentally stable polyurethane based paint as per architectural design requirement .	Nos	4
6	SITC of Main Distribution Panel with approx. Incoming of 32A - 1 nos and approx. outgoing 8 nos of 6-10A SPN. A timer with real time clock to be provided inside the panel.	Nos	17
7	SITC Junction Boxes for intermediate connection for water proof connectors and glands upto size of 300*300*120 mm	Nos	54
8	SITC of IP boxes for termination and drivers upto 100*100*70mm	Nos	115

S.no	DESCRIPTION OF ITEMS	Unit	Qty
9	Supply, Installation, Testing and Commissioning of 8-10W , Adjustable spotlight with adapter for installation on track. Made of die-cast aluminium with passive dissipation system. The spotlight to be rotated by 360° and tilted by 90°. Beam angle as per requirement inside the gallery as approved by Engineer in charge ; Aesthetically appealing design, Colour Temperature 2700/3000/4000K; CRI ≥ 90; Life Time LED> 50,000h.	Nos	20
10	Supply, Installation, Testing and Commissioning of 15-18W Adjustable spotlight with adapter for installation on track. Made of die-cast aluminium with passive dissipation system. . Integrated power line technology allows each spotlight on the track to be adjusted separately. The spotlight to be rotated by 360° and tilted by 90°. Beam angle as per requirement inside the gallery as approved by Engineer in charge ; Aesthetically appealing design, Colour Temperature 2700/3000/4000K; CRI ≥ 90; Life Time LED> 50,000h.	Nos	20
11	SITC of indoor pendant/ recessed / surface mounted magnetic track with accessories . Length - 1mtr	Mtr	40
12	SITC of 24V slim linear LED luminaire in IP40 with integrated glare control must be a stand-alone unit with 10 mm x 13 mm for surface-mount must have extruded and anodized aluminium casing profile, with easy magnetic installation and must be pre-mounted magnets on its backside or plastic clips which can be combined with false ceiling clips with anti-glare optics available in black or white with UGR as low as < 13 for an optimal visual comfort. The CSP LEDs with 3 step MacAdams (SDCM3) binning centered on target CCT (One Bin Only) should ensure an exceptional colour consistency over the rated lifetime. The approx. length of fixture shall be upto 500mm having single colour r, and shall give output of approx. 2170 at 20W/mtr	Nos	180
13	SITC of IP20 LED Strip with minimum wattage 12-15W per meter white LED Strip 2700K to 6000K CRI>90 with minimum lumen output of 1300lumens per meter with driver. LED Strip can be installed using mounting profile available in U shape or L shape profile as per requirement. Profile should have an option of clear or milky white diffuser. LED Strip should have cut point at every 50mm. 24V dc electronic transformer to be kept remotely in weather proof IP rated box or at dry location.	Mtr	430
14	SITC of IP 20 driver for strip light upto 150W .	Nos	60

S.no	DESCRIPTION OF ITEMS	Unit	Qty
15	SITC of surface mounted flood light 50W LED compact and robust flood light luminaires designed to provide uniform illumination in open spaces. Having Beam angle 10° / 28° / 45°. Extruded aluminium hood cover integrated with die-cast module and extruded aluminium alloy tube, excellent thermal management heat sink & polycarbonate optical lens. Mounting clamp made of galvanized CRCA sheet (3mm thickness). Pressure die cast aluminium mounting plate Ø100.5 x 4mm thick with 2 elongated holes 15 x 10 to suit M8 bolts at PCD 55 with pure polyester powder coating. This mounting plate along with foundation bolts of suitable size to be used for ensuring firm grouting into the specially designed foundation. Cable entrance via PG9 cable gland. All external screws are made of stainless steel. Protection class IP65. Mechanical resistance IK09. Pure polyester powder coated graphite grey / anthracite grey / jet black. Available colour temperature 3000K / 4000K / 5700K, Colour rendering index (CRI)>80. SDCM-3 MacAdam. LED module with expected service life of at least 60,000 operating hours. Prewired with LED driver and suitable for operating on 240V, 50Hz single phase ac supply. Driver efficiency >85%, Power factor >0.95, THD< 10%, Surge protection 6KV. Luminaire having approx. dimension : 166mm diameter x 153mm width x 423mm height. CE & BIS Certified. Inhouse NABL certification..	Nos	35
16	SITC of LED flood lights designed to provide directional spot light. The product design and construction of the luminaires are characterized by high luminous efficiency, an extremely long service life and uniform illuminance. Their sturdy construction makes them particularly suitable for areas where a high level of robustness is required. Luminaire made of pressure die cast aluminium of high corrosion resistance and non corrosive stainless steel fasteners. Clear tempered glass. Bracket to facilitate proper aiming of the luminaire at desired angle. Available in 15° / 25° / 40° beam angles Cable entries for through-wiring of mains supply cable. Prewired with LED driver and suitable for operating on 240V, 50Hz single phase ac supply. High luminous efficiency at reduced wattage. Elegant, Robust design. Having 15W .	Nos	85
17	SITC of 6W spike / surface mounted compact spot light designed to provide directional light. Beam angle 15° / 25° / 40°. Luminaire made of pressure die cast aluminium alloy of high corrosion resistance and non corrosive A2 stainless steel fasteners. Clear toughened glass of 4mm thickness. Surface mounting spike made of polypropylene black. Hybrid optics with lens & mirror finish pure aluminium reflector combination for higher efficiency, lower optical losses with optimum glare suppression. Swivel range of 0° - 90°. Single cable entrance M10 cable gland. Protection class IP66. Mechanical resistance IK06. Pure polyester powder coated graphite grey / anthracite grey / jet black. Available colour temperature 3000K / 4000K / 5700K, Colour rendering index (CRI)>80. SDCM-3 MacAdam. K-Lite LED module with expected service life of at least 60,000 operating hours. Prewired with LED driver and suitable for operating on 240V, 50Hz single phase ac supply. Luminaire dimension : 101mm length x 90mm width CE & BIS Certified. As per Architectural design requirement and complete in all respects . Inhouse NABL Certified laboratory.	Nos	20

S.no	DESCRIPTION OF ITEMS	Unit	Qty
18	Supply , Installation testing and Commissioning of An elegant and efficient pillar light with translucent diffuser provide a unique, comfortable light choice with symmetrical and glare free light distribution. Aesthetically designed sturdy construction ensures a long life against all weather condition, maintaining initial performances through the lifetime of the installation. Luminaire top cover & bottom frame made of die-cast aluminium (grade ADC12) with extruded aluminium supporting arm. Translucent acrylic diffuser. Luminaire integrated with 12W LED. Aluminium base for easy installation on the pillar. Complete with power supply as per architectural design requirement . The luminaire to include driver, connectors and surge protection devices .	Nos	3
19	Supply , Installation testing and Commissioning of Asymmetrical surface mount floor washer with a wide beam for glare free illumination of pathways, entrances etc. Sustainable LED technology offers durability and optimal light output with lower power consumption. Luminaire made of pressure die cast aluminium alloy of high corrosion resistance and non corrosive A2 stainless steel fasteners. Non yellowing UV stabilized clear polycarbonate. Silicone gasket. Die cast aluminium installation housing for surface mounting on wall. Complete with power supply as per architectural design requirement . Having 6W LED . The luminaire to include driver, connectors and surge protection devices .	Nos	50
20	Supply , Installation testing and Commissioning of Flood Light is a powerful and efficient lighting fixture designed . Body made up of Pressure Die-Cast Aluminium with Stainless Steel bracket . Impact Protection : IK07; Ingress Protection : IP65 with Diffuser : Toughened glass Mounting : Surface. Complete with power supply as per architectural design requirement . Having 70W LED . The luminaire to include driver, connectors and surge protection devices .	Nos	130
21	SITC of 3W spike / surface mounted compact spot light designed to provide directional light. Beam angle 8° / 12° / 24° / 40° / 60° / 40°x11°. Luminaire made of pressure die cast aluminium alloy of high corrosion resistance and non corrosive stainless steel fasteners. Clear toughened glass of 4mm thickness. Surface mounting spike made of polypropylene black. Hybrid optical lens for higher efficiency, lower optical losses with optimum glare suppression. Swivel range of 0° - 90°. Single cable entrance M10 cable gland. Protection class IP66. Mechanical resistance IK06. Pure polyester powder coated graphite grey / anthracite grey / jet black. Available colour temperature 3000K / 4000K, Colour rendering index (CRI)>80. SDCM-3 MacAdam. K-Lite LED module with expected service life of at least 60,000 operating hours. Prewired with LED driver and suitable for operating on 240V, 50Hz single phase ac supply. CE & BIS Certified .As per Architectural design requirement and complete in all respects . Inhouse NABL Certified laboratory .	Nos	74
	Total Part-B		

Madhya Pradesh State Tourism Development Corporation (MPSTDC)			
Orchha : A Medieval Splendour (SASCI Project)			
Digital Content QR Code, AR Content Website and App Integration			
Abstract			
S.no	Description of Item	Unit	Qty
Digital Content QR Code, AR Content Website and App Integration			
1	<p>Website (Design, Programming, Content) &WordPress, content management system (CMS) based.</p> <p>Concept design, development, programming, prototyping, testing and launching of a responsive website for the Orchha in accordance with the design language of the overall museum design with a robust web admin panel (CMS) and is able to synchronise with the Progressive Web Application (PWA).</p> <p>1. Website Design and Programming</p> <p>The website should at least have the following features as per approval of engineer-in-charge/consultants:</p> <ul style="list-style-type: none"> -Upto 1500 Pages - Web Hosting - Domain Name Registration - Website Content - Design implementation on WordPress (Content Management System). - The site will have Admin access, using which changes can be made on the website using friendly interfaces. -Manual to operate the CMS shall be provided within one week of website launch. -Temple trust integration - Live darshan streaming - Prasad vitran - Payment gateway integration -Integration on 360degree of view of various sites / temples under the tourism department -Itinerary formation -Booking (tours, stays, tour packages) 	Nos	1
2	<p>Mobile Application Development</p> <ul style="list-style-type: none"> -For Both IOS and Android -UX-UI Design -Integration of all below content -AR view enable through mobile camera -QR Code Integration -HOP On- HOP Off Service 	Nos	1
3	Content Development		

	360 Degree Photo Shoot, Audio Video Content creation on Historic significance (QR Code based) -360degree shoot -Final stitched HDRI Panoramic Images -To be delivered as per website requirement - Up-to 2 min audio video content on related subject including:- concept, scripting, storyboarding, shooting editing, and delivery of final video as per application/ website development approved format	Nos	5
3.1	Ramnagar Darwaza	Nos	1
3.2	Ganesh Darwaza	Nos	1
3.3	Katra Darwaza	Nos	1
3.4	Gudhrai/ Sayyid Darwaza	Nos	1
3.5	Jhansi/Pratham Darwaza	Nos	1
4	Art Walk (interpreting Orchha stories through paintings at Lakshmi Temple, Jehangir Mahal and Raja Mahal) 3 Locations 360 Degree Photo Shoot, Audio Video Content creation on Historic significance -360degree shoot -Final stitched HDRI Panoramic Images -To be delivered as per website requirement - Up-to 2 min audio video content on related subject including: - concept, scripting, storyboarding, shooting editing, and delivery of final video as per application/ website development approved format	Nos	1
6	Palace walks, tomb walk, Baolis & water bodies walk 360 Degree Photo Shoot, Audio Video Content creation on Historic significance -360degree shoot -Final stitched HDRI Panoramic Images -To be delivered as per website requirement - Up-to 2 min audio video content on related subject including: - concept, scripting, storyboarding, shooting editing, and delivery of final video as per application/ website development approved format	Nos	1
7	Religious Trail, Ecological or Geological Trail Augmented reality based 3D view projection development of all major site and building of Orcha city and integrate them into the app using geotagging location based programme. -360degree shoot -Final stitched HDRI Panoramic Images -To be delivered as per website requirement -Up-to 2 min audio video content on related subject including: - concept, scripting, storyboarding, shooting editing, and delivery of final video as per application/ website development approved format -3D Modeling of all major major site and building of Orcha city, lighting rendering and exporting as per approved website format.	Nos	1
8	3D reconstruction of damaged parts/ creation historic ambience, interpretation of paintings in Art Walk - 3D Modeling of all major major site and building of Orcha city, lighting rendering and exporting as per approved application/ website format.	Nos	1

	AR Based Reconstruction of old heritage paintings - Recreation of all paintings and integrating them as per approved application/ website 9 requirement.	Nos	20
10	AR Based Reconstruction of old heritage paintings	Nos	20
	Total A Non SOR		

Madhya Pradesh State Tourism Development Corporation (MPSTDC)								
Orchha SASCI Projects								
Light and Sound Show at Citadel Complex_Orchha								
Abstract								
S.no	Item No.	Sub Item No	Item Name	DESCRIPTION OF ITEMS	Unit	Rate	Qty	Amount
Part A Non SOR Elecetrical								
1			NSOR	Supply, installation, testing and Commissioning of Loudspeakers with Drivers 2x 12" LF/ 1 x 1,4" HF Coaxial, Frequency range 65 - 18K Hz; Power capacity programm / peak:1400/2400W bi-amplified LF; 220/400W biamped HF; 1400/2400W passive; Impedance- 4 Ohm bi-amped LF, 8 ohm biamped HF; 40hm passive , Coverage range (h x v) 60° x 40°/90° x 50°, rotatable HF-Horn; Sensitivity 1 W / 1 m - 107 dB biamped LF, 112db biamped HF; 110db Passive, SPLmax / 1 m / peak 143 dB, Polyurea coated. Approved makes:-Aimline/TW Audio/L-Acoustic	12	Nos	585000	70,20,000.00
2			NSOR	Supply, installation, testing and Commissioning of Subwoofer with Drivers 1x 18" LF; Fequency range 32 - 160 Hz, Power capacity-programm / peak: 2400 / 4800 W; Imopedance - 80hm, Sensitivity 1 W / 1 m - 96dB Passive ; SPLmax / 1 m / peak 132dB better Polyurea Coated with IP55 rating .Approved makes:-Aimline/TW Audio/L-Acoustic	4	Nos	575000	23,00,000.00
3			NSOR	Supply, installation, testing and Commissioning of Four Channel amplifier with inbuilt DSP, 1500W @2ohm , 1200W @4 ohm; 1200W @8ohm and 3000W @4Ohm and 2400W@8Ohm in bridge mode; Maximum output voltage 140Vpeak and 45Apeak current; Frequency Response 20Hz-20KHz;S/N Ratio- 110dBA; Crosstalk >70dB@1KHz;THD+N < 0.2%; Slew Rate->50V/microSec; Damping Factor >500@ 20-100Hz; A/D and D/A Converters of 24bit/48KHz; DSP Inbuilt Preset Memory; Crossover Filters - linear phase (FIR), Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct (IIR);Input Equalizers - Raised-cosine, custom FiR, parametric iIR: peaking, hi/lo-shelving, all-pass, band-pass, band-stop, hi/lo-pass; Output Equalizer ; Limiters - P TruePower™, RMS voltage, RMS current, Peak limiter; Audio signal input 1 x 12 pin Phoenix MC 1.5/12-ST-3.81 - Signal input – MAIN; Loudspeakers 1 x 8 pin Phoenix DFK-PC 4/8-G-7.62 - Signal output; With separate input and Output DSP and DANTE ready.Approved makes :--Ashly Audio/PowerSoft/L-Acoustic	6	Nos	438000	26,28,000.00
4			NSOR	Supply, installation, testing and Commissioning of 23000-25000 lumens, WUXGA resolution, DLP, pure laser projector with minimum 20000 hours light source, Contrast Ratio : min 2000000 : 1, Motorized horizontal and vertical lens offset , HDMI 2.0,2 x DisplayPort 1.2, HDBaseT,3D sync Audio out should be complete with mounts and lens.Approved makes :- Christie/NEC/Barco	12	Nos	3600000	4,32,00,000.00
5			NSOR	Supply, installation, testing & Commissioning of Weatherised enclosure for equipment. Equipment should be compelte with fans and temperature sensors remote controlled with Pole and all accessories.Approved makes:- Aura,Wizbox,AVS	12	Nos	650000	78,00,000.00
6			NSOR	Supply, installation, testing and Commissioning of 3D Projection mapping software, Playback control System to manage, schedule and control the media severs. It should have direct control on inputs and media timelines. It should have an option of being controlled by an external unit integrated with the software. to complete the job with all respects. Approved makes:- Coolux, Resolume, Watchout, Disguise D3	4	Nos	200000	8,00,000.00
7			NSOR	Supply, installation, testing and Commissioning of HDMI 2.0 HDBaseT Extension Set, Extend HDMI 2.0 signals up to 4K@60Hz / 4:4:4 up to 70m (4K 40m / 1080P 70m), Complete set Includes TX, RX, power supply, and IR flasher/emitter, Extends bi-directional IR. Flexible PoC (Power on either end), Supports HDR10, HDCP 2.2 compliant, Flexible power design (use power supply at TX or RX).Approved makes :- Liberty /Extron/crestron	12	Nos	78817	9,45,804.00
8			NSOR	Supply, installation, testing and Commissioning of Display media server with HD outputs as required , synced together. It should be capable of capturing content. Original windows 10 embedded with i7 six core CPU with Rugged cooling system. with 16GB RAM, 2 nos 512 SSD drives raid 0 drives for media playback , 1 nos. 256 GB SSD for operating. It should also have genlock and framelock capability. Should also have Art-net Ethernet in/out. to complete the job with all respects.Approved makes:-HP, Dell, Asus, Custom subject to approval.	5	Job	480000	24,00,000.00

S.no	Item No.	Sub Item No	Item Name	DESCRIPTION OF ITEMS	Unit	Rate	Qty	Amount
9			NSOR	Supply, installation, testing and Commissioning of 16-port managed switch is a high-performance networking device designed to provide reliable and efficient connectivity- 16 x 10/100/1000 Mbps RJ-45 ports, Managed switch with web-based interface for easy configuration and management, Supports VLAN, QoS, and IGMP snooping, Link aggregation and port mirroring capabilities, Jumbo frame support up to 9,216 bytes IEEE 802.1p QoS and DSCP, 802.1X authentication and RADIUS. Approved makes :- Cisco /Netgear/HP	2	Nos	86000	1,72,000.00
10			NSOR	Supply, installation, testing and Commissioning of Speaker Cable – 4.0 Sqmm (128/0.20mm) x 2 core cable ATC copper conductor PVC insulated, core twisted, outer jacketed with Vasiform Type PVC Sheath. No of Conductors 2, Conductor – No/ Size of Wire 80/0.20mm, Conducto Cross Sectional Area 4.0 Sqmm, Insulation Type PVC, Insulation Dia. 4.20 mm, Core Colours Blue and White, DC resistance @20 °C – Conductor 5.09 Ω / Km, Insulation resistance 10000 M x m Min. at DC 125V, 20 °C, Approved Brand :- Belden/Krystals/Klotz	2000	Mtr	180	3,60,000.00
11			NSOR	Supply, installation, testing and Commissioning of 400W Moving Head Rainproof Beam Light , Light source power 400W Control mode: 16 channels, DMX512 signal input, manual mode control, voice control, automatic operation, Color wheel: 8 colors + white light, forward rotation, reverse rotation, rainbow flowing water, adjustable speed, Pattern plate: 7 pattern pieces, the pattern can be rotated 360 degrees., Prism: Triangular prism, Strobe: 1-32HZ strobe, adjustable strobe speed, Beam angle: 7.5-46°. IP65 protection. Approved Brand :- Leksa/martin/canara	6	Nos	480000	28,80,000.00
12			NSOR	Supply, installation, testing and Commissioning of high quality long through multi color wash light, Protection Rating : IP66, complying to BIS standard "IS 10322 (Part 5/Sec 1): 2012" and having CE certification against standard "Low Voltage Directive & Protective Equipment - EN 60598-1:2015", and "Electromagnetic Compatibility Directive - EN 61547: 2009", Mounting Structure : Adjustable surface mount yoke arrangements for fixing the lights having the rotation degrees embossed in the die cast. Power consumption : 100W, CCT : RGBW(6000-7000K), (as per the design approval), Optics : PMMA with holder, Beam Angle : 25°/45°/60°, Control : DmX512 Channel : 4 CH, Body : Die casted / extruded aluminium Power Input : Constant DC 24V with external driver to the constant current decoder, Surge Protection : Inbuilt surge protection in the driver 2KV-4KV (Additional if required will be added as per the requirement), Toughened transparent glass having the IK protection up to IK07, Painting : Chemical 3/7 tank processed treatment before the powder coat black/ash/approved color coat. Fixture will be suitable to operate in a temperature range of 0°C to 50°C, The light fixtures are having IP68 air vent made of stainless steel which helps to desiccate & prevent from forming moisture inside the light fixture at worst environmental condition. LED life should be at least 50,000 burning hours at L70 at 35 degree centigrade. Luminaire is inclusive of Integral male/female waterproof connectors with structures in pre wired conditions as per IS standard. PCB thickness must be 1.6mm, 35 micron Copper, 2W TC with Black or White masking, Copper /OSP finish. LM79, IK07, IP66, HV Certificates from NABL Accredited laboratory. Power & DMX Loop In/Out along with IP67 connector having the length >300mm. Approved Brand :- Leksa/martin/canara	40	Nos	35000	14,00,000.00
13			NSOR	Supply of PVC insulated multi core electric Alun armoured flexible 3Cx2.5 Sqmm power cable having less electrical losses. This PVC insulated and round sheathed wire features a bright multi strands copper conductors and it supports voltage grade up to 1100V. (As per actuals depending upon the site condition) Approved Brand :- RR/Polycab/KEi	2000	Mtrs.	305	6,10,000.00
14			NSOR	Supply, installation, testing and Commissioning of 5 core DMX cable comprises twisted pairs with shield support for carrying of data. DMX512 cable is used for connecting all light consoles that use DMX512 standard data transmission. (As per actuals depending upon the site condition). Approved Brand :- Belden/Krystals/LL	1800	Mtrs.	190	3,42,000.00
15			NSOR	Supply, installation, testing and Commissioning of IP65 "I" power connector shaving 3/4 pole cable connector, chuck type strain relief, Current rating 20 Arms continuous, Easy and extremely precise locking system "Quick Lock" High impact materials - long-lasting and reliable. Approved Brand :- Belden/Krystals/LL	40	Nos	1570	62,800.00
16			NSOR	Supply, installation, testing and Commissioning of IP65 "I" DMX connector shaving 3/5 pole cable connector, Male/Female connector with improved latch, cage type contacts, "solder stop" for easy soldering, and additional ground contact for best contact integrity between chassis and cable connector. More durable housing for maximum reliability. Approved Brand :- Belden/Krystals/LL	8	Nos	1830	14,640.00
17			NSOR	Supply, installation, testing and Commissioning of 5 pin XLR Male connectors having 5 pole cable connector, Male/Female connector with improved latch, cage type contacts, "solder stop" for easy soldering, and additional ground contact for best contact integrity between chassis and cable connector. More durable housing for maximum reliability. Approved Brand :- Belden/Krystals/LL	40	Nos	980	39,200.00

S.no	Item No.	Sub Item No	Item Name	DESCRIPTION OF ITEMS	Unit	Rate	Qty	Amount
18			NSOR	Supply, installation, testing and Commissioning of DMX isolator or splitter provides Isolated optical DMX splitter provides 8 outputs from a1 input and Input voltage: AC 110 to 220V, 50Hz, Product features: Group 1 & group 8 DMX signal change. Approved Brand :- Belden/Krystals/LL	8	Nos	45200	3,61,600.00
19			NSOR	Supply, installation, testing and Commissioning of DmX Controller TigerTouch Power Consumption: 80W ,Power Specification : 110 240V AC, 50-60Hz, Heat Output: 272.8 BTU/hr , Operating Environment: Ambient temp 0-40C/32-104F. Max humidity 95% relativenon condensing, Internal UPS: 5 separate 5-minute periods, fully software integrated, DMX Channels per Device: 8,192, Max DMX Channels per System: 32,768, 3D Visualisation: Capture engine built in , Max Fixtures: Unlimited, Key frame Effect Engine: Custom effects with any number of key frames , Pixel Mapping: Animation based, video via Synergy, External Control: Web API, MIDI, DMX, sACN, Titan Net: Multi-user with any Titan console, Output Formats: ArtNet, sACN, or DMX 512, DMX 512: 4xNeutrik 5-pin XLR, optically isolated, Network: 2x1Gb Ethernet connections, Mains Power: IEC, Data/Peripherals: 4xUSB 2.0 plus 1xUSB 2.0 front-mounted, External Display: Display Port and DVI (one active output only), MIDI: In & Out 5-pin DIN, SMPTE: 3 pin XLR, Switch Trigger: ¼" jack . Approved Brand :- Leksa/martin/canara	1	Noa	755300	7,55,300.00
20			NSOR	Supply, installation, testing and Commissioning of additional accessories for installing the lights as per the final drawing/site condition consisting of clamps, junction box, DMX Box, brackets, angles, conduits, joints, hardware's like fasteners, nut & bolts etc. Approved Brand :- Belden/Krystals/LL	1	Lot	346100	3,46,100.00
21			NSOR	Supply of following "Capacity (in kVA / KW) " 40 kVA 3-Phase Input / 3-Phase Output 40 KW 3-Phase Input / 3-Phase Output, Input Voltage Range "220/380V, 230/400V, 240/415V (3Φ4W) Range (Full Load) 173~276 / 300~477VAC Range (Derating to 70% Load) 132~173 / 228~300VAC", Input Frequency Range 45 to 65 Hz, Input Power Factor > 0.99 (Full Load), Transient Voltage Surge Suppressor External at Input Side, Current Harmonic Distortion (ITHD) < 3%, Nominal Output voltage 220/380V, 230/400V, 240/415V (3Φ4W), Nominal Output Frequency 50/60 Hz Output Voltage Distortion (THDu) < 1.5 % (linear load), Transient Voltage Surge Suppressor External at Output Side, Crest Factor 3:1, Isolation Transformer Inbuilt on UPS at Output Side, Isolation Transformer Inbuilt on UPS at Output Side, Overall Efficiency On Line Mode = Upto 96% , Eco Mode = Upto 99% , Inverter Overload capacity ≤ 105 %: continuous, 106% ~ ≤ 125%: 10 minutes; 126% ~ ≤ 150%: 1 minute; > 150%: 1 second, Backup Required Battery VAH 30 Minutes on full load , Minimum 40000, Battery Bank Voltage Battery Type Battery Make 408 V DC or higher Sealed Maintenance Free (SMF) - 12V Cells . Make : Exide / Quanta , Noise Level < 60dBA at 1 Meter, Remote Alarm Panel External for UPS Monitoring Purpose , Manufacturer "QMS: ISO 9001: 2008, EMS: ISO 14001: 2004, OSHAS: ISO 18001: 2007 , NABL Accredited lab in India" Product Safety Certifications (Mandatory) "ESD: IEC61000-4-2: level , RS : IEC61000-4-3: level 3, EFT: IEC61000-4-4: level 4 SURGE: IEC61000-4-5: level 4, CS: IEC61000-4-6: level 3, IEC 61000-2-2, EN 62040-2 EN 61000-3-2" ROHS compliance UPS should be ROHS compliance. Approved makes :- Delta/luminous/Genus	1	Nos	1310000	13,10,000.00
22			NSOR	Content Development: Development of projection Mapping-based mixed media content using high-end rendering machine, like Unreal Engine, used in commercial films, to create hyper realistic 3D animation with 2D/3D graphics, as per direction and approval. Content formatting to be done with required aspect ratio of the AV system and minimum 4K quality or more as per satisfaction of the engineer in charge/consultant. The content to be played in a loop. Pre-production: Creation of research-based visual reference document, script, and story board for Pre-Production for the film production studio before Production and Post-Production Work. The work includes research inputs from subject expert(s), visualisation, script writing and visual story boarding with listing of thematic film segments, image reference, creation of vector 2D graphic, reference 3D virtual model and architectural drawings. Creation of final text for subtitles and descriptions to be used in the films in English and Hindi (writing of content, copy editing, proof reading, translation). Music composition, voice-over (National Award Artists) recording. Overall planning and coordination of pre-production, production/shoots, post production and delivery of final AV contents as per approval of engineer in charge/consultants. Language: Hindi and English Duration: 25-30 mins	1	Nos	6500000	65,00,000.00

S.no	Item No.	Sub Item No	Item Name	DESCRIPTION OF ITEMS	Unit	Rate	Qty	Amount
23			NSOR	Event Production and Setup: Supplying of following Amenities for Live performance including props, costume, furnitures required as per the approved script and content and site requirements etc.	1	Job	2000000	20,00,000.00
24			NSOR	Supply, installation, testing and Commissioning of Two-way Small Format high SPL IP55 rated (as per IEC 60529) all weather surface mount loudspeaker. The louspeaker shall meet the following performance criteria: Frequency Range (-10 dB) of 80 Hz - 18 kHz or better; Nominal Dispersion : 90°H x 60°V (rotatable Horn); Power handling of 800W peak or more; Sensitivity : 93 dB; Max SPL : 122dB Peak; Nominal impedance of 8 ohms and Integral multi-tap Transformer with selectable tap settings of 10/20/40/80W@70V & 100V. The loudspeaker system shall be comprised of a Powder-coated finish stainless steel grille with Two-part spray polyurea coating Enclosure; Single 8-inch woofer; Single 2-inch voice coil high-frequency compression driver.Approved makes:-EAW/TW Audio/BOSE	2	Nos	168000	3,36,000.00
25			NSOR	Supply, installation, testing and Commissioning of Full-Range-Driver Array eliminates tweeters and crossovers for unsurpassed reliability in harsh environments and vocal clarity, 8 x Bose 4.5" full-range drivers for legendary reliability 120° x 100° Articulated Array® design covers a very wide area, which can reduce the number of loudspeakers requiredFrequency Range (-10 dB)1 52 Hz - 15 kHz,Recommended High-Pass Protection Filter 55 Hz with minimum 12 dB / octave filter Nominal Coverage Pattern 120° H x 100° V Loudspeaker EQ Active EQ required for optimal performance Overload Protection Power limiting circuit (non-fused; automatic reset) Power Handling, long-term continuous 240 W 300 W Power Handling, peak 960 W 1200 W Free field Free field Sensitivity (SPL / 1 W @ 1 m)4 92 dB 92 dB Calculated Maximum SPL @ 1 m5 116 dB 117 dB Calculated Maximum SPL @ 1 m, peak 122 dB 123 dB Transducers Full-range drivers 8 x 4.5" (114 mm) full-range cone transducers Nominal Impedance 8 ohms.Approved makes:-EAW/TW Audio/BOSE	3	Nos	120000	3,60,000.00
			NSOR	Supply, installation, testing and Commissioning of 4 channel power amplifier with total of 2400W power and power sharing feature for Asymmetric power allocation. Shall support Dante Digital as well as Analog line level audio inputs and GPIO connections for muting. Power output: Upto 4x600W @ 4 and 8 ohms, upto 4x750W @ 2ohms SNR: 108dB(A) or better,THD+N: <0.1 % Crosstalk (1 kHz): -70dB or better A/D and D/A converters: 24-bit, 48 kHz Sample rate converter: 24-bit, 44.1 kHz – 192 kHz Input-to-output signal routing: 4 x 4 matrix signal processing: Matrix mixer, 5-band PEQ, array EQ, band pass, Spkr EQ, limiter, delays, Programmable speaker EQs Input impedance : 20 kΩ Status indicators: metering LEDs, system status LEDs, power status LEDs Protections: Thermal, excess high/low AC mains voltage, DC, high-frequency, output short-circuit, inrush current, clip, peak, etc.Cooling system: variable-speed fan, front-to-back airflow.Approved Makes: Bose/Ashly Audio / Aimline	1	Nos	605171	6,05,171.00
26			NSOR	SITC of Full range IP55 rated indoor/outdoor surface mounted music loudspeaker. The louspeaker shall meet the following performance criteria: Usable Frequency range (-10dB) of 70Hz to 17kHz; Power handling of 160 Watt peak; Nominal dispersion of 100°(H) x 100°(V); Sensitivity of 87 dB SPL and Max SPL of 109 dB SPL peak; Nominal impedance of 8 ohms and Integral multi-tap Transformer with selectable tap settings of 5/10/20/40W@70V & 100V. The loudspeaker system shall be comprised of a 4.5-inch woofer; enclosed in engineered-plastics and a powder-coated tamper-resistant steel grille. UL-1480 rated and EN54-24 compliant for Life safety/VA applicatons. Approved makes:-EAW/TW Audio/BOSE	10	Nos	50900	5,09,000.00
27			NSOR	SITC of floor / surface mounted Subwoofer. The louspeaker shall meet the following performance criteria: Usable Frequency range (-10dB) of 35Hz to 125kHz; Power handling of 1000Watt peak; Nominal dispersion shall be omnidirectional; Sensitivity of 90 dB SPL and Max SPL of 120 dB SPL peak; Nominal impedance of 8 Ohms with an Integral multi-tap Transformer with selectable tap settings of 40/80/150W@100V or better. The loudspeaker system shall be comprised of a powder-coated steel grill; 10-inch woofer enclosed in high-density wood composite. UL-1480A rated.	2	Nos	121882	2,43,764.00

S.no	Item No.	Sub Item No	Item Name	DESCRIPTION OF ITEMS	Unit	Rate	Qty	Amount
28			NSOR	Supply, installation, testing and Commissioning of 4 channel power amplifier with total of 1200W power and power sharing feature for Asymmetric power allocation. Shall support Dante Digital as well as Analog line level audio inputs and GPIO connections for muting. Power output: Upto 4x300W @ 4 and 8 ohms, upto 4x375W @ 2ohms SNR: 106dB(A) or better THD+N: <0.1 % Crosstalk (1 kHz): -70dB or better A/D and D/A converters: 24-bit, 48 kHz Sample rate converter: 24-bit, 44.1 kHz – 192 kHz Input-to-output signal routing: 4 × 4 matrix signal processing: Matrix mixer, 5-band PEQ, array EQ, band pass, Spkr EQ, limiter, delays, Programmable speaker EQs Input impedance : 20 kΩ Status indicators: metering LEDs, system status LEDs, power status LEDs Protections: Thermal, excess high/low AC mains voltage, DC, high-frequency, output short-circuit, inrush current, clip, peak, etc. Cooling system: variable-speed fan, front-to-back airflow. Approved Makes: Bose/Ashly Audio / Aimline	2	Nos	495631	9,91,262.00
29			NSOR	Supply, installation, testing and Commissioning of professional multisource CD/USB/SD-card music player with unbalanced outputs 2 x RCA + COMBI RCA, integrated FM RDS and tuner with RS232 control, IR remote included, rack mountable. Makes: Apart /Mark/Bose	3	Nos	65480	1,96,440.00
30			NSOR	Supply, installation, testing and Commissioning of Audio/Dimmer Rack - 12 U Rack, 600 mm wide, height approx 1800 mm with Aluminium frame and 800 mm depth, top bottom side panel and rear door of CRCA. Sheet size 1 mm, front door with Aluminium section and acrylic/glass sheets, Approved makes:- Netrack/APW President/MTS	3	Nos	19000	57,000.00
31			NSOR	Supply, installation, testing and Commissioning of Speaker Cable – 2.5 Sqmm (80/0.20mm) x 2 core cable ATC copper conductor PVC insulated , core twisted, outer jacketed with Vasiform Type PVC Sheath. No of Conductors-2, Conductor - No/ Size of Wire 80/0.20mm, Conductor – Cross Sectional Area -2.5 Sqmm, Insulation Dia.-3.60 mm, Core Colours -Blue and White, DC resistance @20 °C - Conductor-8.21 Ω / Km, Insulation resistance -10000 M x m Min. at DC 125V, 20 °C, DC resistance @20 °C - Conductor-8.21 Ω / Km. Approved Brand :-Belden/Krystals/Klotz	900	MTR	110	99,000.00
Total								8,76,45,081.00

Madhya Pradesh State Tourism Development Corporation (MPSTDC)			
Orchha SASCI Projects			
Museums and Interpretation in Orchha City			
Abstract			
S.no	DESCRIPTION OF ITEMS	Unit	Qty
	Part A PWD-SOR 2024		
1	Surface dressing of the ground including removing vegetation and in- equalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. in all kinds of soil.	100 Sqm	1753.00
2	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	100 Sqm	1753.00
3	Stationary Toilet Container (It include all above specification withcontainer)	cum	515.80
4	Transportation & Installation (It includes transportation from Pune and preparation of pavement with septic tank)		
4.1	Ordinary rock	cum	165.00
5	Filling available excavated earth (excluding hard rock/Ordinary rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	cum	476.56
6	Supplying and filling in plinth with crusher stone dust / coarse sand under floors including, watering, ramming and compacting in layers not exceeding20cm in depth and dressing complete Note: - Maximum thickness of this layer shall be 20 cm.	cum	102.75
7	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete.		
7.1	With hard murram having CBR >12 % at under floors including watering, ramming and compacting (minimum compaction 95% of MDD) in layers not exceeding 20cm in thickness and dressing complete. (Note:- maximum thickness of this layer to be provided shall be 30cm	cum	411.00
8	Preconstruction anti-termite treatment to the building under construction by providing.	Sqm	181.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
8.1	<p>Stage 1: Treating the bottom and the sides (upto 30 cm height of the excavated trench @ 5 litres per sqm of the surface area.</p> <p>Stage 2: After masonry/RCC work, the backfill in the immediate contact with the foundation structure treatment @ 7.5 litres per sqm. Of the vertical surface of the substructure for each side.</p> <p>Stage 3: surface treatment by spreading emulsion over the plinth area before laying the base concrete under floors @ 5.0 litres/Sqm.</p> <p>Stage 4: Pumping the emulsion in plinth masonry on filling side at floor junction @ 7.5 litres/Sqm</p> <p>Stage 5: Pumping the emulsion from outer side of the plinth below ground around the masonry @ 5.0 litres/Sqm as per I.S. 8944 Emulsion. (1Chlorpyrifos: 19 water) with five years service guarantee (Measurements to be taken for plinth area)</p>		0.00
8.2	Note – Treatment should start when foundation trenches and pits are ready to take bed concrete or levelling course in foundations. Lying of bed concrete should start when the chemical emulsion has been absorbed by the soil and the surface is reasonably dry. Treatment should not be carried out when it is raining or when soil is wet with rain or subsoil water. This also applies to fill up soil within the plinth area before laying the subgrade for flooring.		0.00
9	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level		0.00
9.1	With 20mm nominal size graded stone aggregate		0.00
9.2	M-15 – Grade concrete	cum	35.00
9.3	With 40mm nominal size graded stone aggregate.		0.00
9.4	M-10Nominal (Mix-1 Cement : 3 sand : 6 graded stone aggregate)	cum	76.00
10	Providing and laying in position specified grade of reinforced cement concrete (nominal / design mix with 20mm nominal size graded stone aggregate) excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :		0.00
10.1	M-20 Grade Concrete	cum	11.90
11	Reinforced cement concrete work (with 20 mm nominal size graded stone aggregate) in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, posts and struts etc. above plinth level and upto floor two level excluding cost of centering, shuttering, finishing and reinforcement		0.00
11.1	M-20 Grade Concrete	Cum	5.60
12	Reinforced cement concrete work (with 20 mm nominal size graded stone aggregate)in beams, suspended floors, roofs having slope of any degree landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral staircases above plinth level and upto floor two level excluding the cost of centering, shuttering, finishing and reinforcement in concrete grade.		0.00
12.1	M-20 Grade Concrete	Cum	46.80

S.no	DESCRIPTION OF ITEMS	Unit	Qty
13	Centering and shuttering in cladding strutting, propping etc. and removal of form for:		0.00
13.1	Foundations, footings, bases of columns, etc. for concrete upto plinth level.	Sqm	63.00
13.2	Walls (any thickness) in cladding attached pilasters butter esses, plinth beams and string courses etc.		0.00
13.3	Upto plinth level.	Sqm	44.00
13.4	Suspended floors, roofs, landings, balconies and access platform.	Sqm	180.00
13.4	Lintels, beams, girders, bressumers and cantilevers	Sqm	135.00
14	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete . (Note:- 1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge. 2. No extra payment shall be done for overlaps and/or couplers. 3. Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification")		0.00
14.1	Thermo-Mechanically Treated bars. (TMT/TMX) FE 500 or more conforming to IS 1786	Kg	7716.00
15	Brick work with well burnt chimney bricks in bulls pattern trench kiln manufactured by ghol process, crushing strength not less than 40kg /cm ² and water absorption not more than 15% in foundation and plinth i/c curing etc. complete.		0.00
15.1	Cement mortar 1:6 (1 cement : 6 sand)	Cum	82.00
16	Brick work with well burnt chimney bricks in bulls patent trench kiln manufactured by ghol process ,crushing strength not less than 40kg /cm ² and water absorption not more than 15% in superstructure above plinth level and up to floor two level i/c curing etc. complete.		0.00
16.1	Masonry work (first sort) in cement mortar 1:6 (1 cement : 6 sand)	Cum	92.00
17	Providing half brick masonry with well burnt chimney bricks in bull patent trench kiln manufactured by ghol process crushing strength not less than 40 kg /cm ² and water absorption not more than 15% in superstructure above plinth level and up to floor two level.		0.00
17.1	Cement mortar 1:4 (1 cement : 4 sand)	sqm	79.20
18	'Providing and fixing frame work for partitions/ wall lining etc. made of 50x50x 1.6mm hollow MS tube, placed along the walls, ceiling and floor in a grid pattern with spacing @ 60 cm centre to centre both ways (vertically and horizontally) or at required spacing near opening, with necessary welding at junctions and fixing the frame to wall/ ceiling/ floors with steel dash fasteners of 8 mm dia, 75 mm long bolt, including making provision for opening for doors, windows, electrical conduits, switch boards etc., including providing with two coats of approved steel primer etc. complete, all as per direction of Engineer- in-charge.	Kg	7203.10

S.no	DESCRIPTION OF ITEMS	Unit	Qty
19	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid board one side white colour and other side of board laminated with PVC foil of minimum 14 micron thickness of approved design pasted with hot melt adhesive for cup boards, work stations and bathroom/ kitchen cabinet etc. of required sizes comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibres (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N(Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel piano hinges/soft close clip on concealed hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In-Charge. (Note: stainless steel piano hinges/soft close clip on concealed hinges and necessary S.S screws shall be paid separately) 18 mm thick	Sqm.	624.10
20	Providing and fixing factory made UPVC door frame made of UPVC extruded sections having an overall dimension as below (tolerance ± 1 mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frame reinforced by galvanized M.S. tube of size 19 X 19mm and 1mm (± 0.1 mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge		0.00
20.1	Extruded section Profile size 42x50 mm	Meter	186.00
21	Providing and fixing UPVC panelled door shutter UPVC 30 mm thick factory made PVC or UPVC door shutter made of styles and rails of a UPVC hollow section of size 60x30 mm and wall thickness 2 mm (± 0.2 mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter. shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a UPVC hollow section of size 100x30 mm and 2 mm (± 0.2 mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a UPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	Sqm	81.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
22	<p>Providing and fixing factory made UPVC white colour fixed glazed windows/ ventilators comprising of UPVC multi- chambered frame and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to UPVC profile), UPVC extruded glazing beads of appropriate dimension, EPDM gasket, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately).</p> <p>Note: - For UPVC frame, sash and mullion extrude profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment</p>		0.00
22.1	Fixed window / ventilator made of (small series) frame 47 x 50 mm & mullion 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area upto 0.75 sqm.)	sqm	11.70
23	Providing and fixing glass panes/ steel sheet/ fibre sheet with putty and glazing clips in steel doors, windows, clerestory windows all complete		0.00
23.1	5.50 mm glass	sqm	11.70
24	Marble stone flooring with 18 mm thick marble stone (sample of marble shall be approved by Engineer-in-charge) laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 sand and grey cement slurry, joints treated with white cement mixed with pigment to match colour of stone including rubbing and polishing complete with : (area of slabs over 0.5 sqm)		0.00
24.1	Agaria White/Morgarh	Sqm	162.60
25	Marble stone 18 mm thick in riser of step, skirting, dado and pillar laid on 12 mm average thick cement mortar 1:3 (1 cement: 3 sand and laid with white cement slurry) joints treated with white cement mixed with pigment to match the shade of the slab i/c rubbing and polishing complete. (area of slab over 0.50sqm.)		0.00
25.1	Agaria White/Morgarh	Sqm	13.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
26	Providing and fixing 18mm thick gang saw cut mirror polished (pre-moulded and pre-polished) machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish wherever required etc. complete at all levels. Samples approved by Engineer-in-Charge.		0.00
26.1	Granite fine grained dark crystal of other colours and various patterns	Sqm	2.60
26.2	Extra for prefinished nosing to treads of steps of marble stone	meter	27.00
27	Extra for marble stone flooring in treads of steps and risers using single length upto 2.00 metre.	Sqm	13.00
27.1	Mirror polishing on marble work/Granite work/stone work wherever required to give high gloss finish complete	sqm	365.20
28	Providing and laying factory made machine pressed precast cement concrete interlocking paver block of any shape and size conforming to IS:15658- 2006 and ISI marked of 60 mm thickness, M-30 grade with grey cement and pigment all as specified. Made by block making machine with strong vibratory compaction, laid in required colour and pattern over and including 50mm thick compacted bed of stone dust, filling the joints with sand etc. all complete as per the direction of Engineer-in-Charge.	sqm	881.00
29	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc. of required colour strength, thickness pattern, surface texture (smooth/rough) and size/shape, conforming to 15658-2006 made by table vibratory method using PU mould, laid in required colour and pattern over 50mm thick compacted bed of sand, compacting and proper embedding/ laying of inter locking paver blocks into the bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand including locking with M15 cement concrete in footpath, parks, lawns, drive ways or light traffic parking etc. complete as per manufacturer's specifications and direction of Engineer-in- Charge.		0.00
29.1	80 mm thick C.C. paver block of M-35 grade	sqm	587.00
30	Brick on edge flooring with bricks of class designation 7.5 on a bed of 12 mm cement mortar, 1:6 (1 cement : 6 sand) including filling the joints with same mortar, with common burnt clay non modular bricks		0.00
30.1	100 mm thick	sqm	41.80
31	Providing and laying vitrified floor-tiles Full Body Design Homogenous Body matt/rustic finish in different size with water absorption less than 0.05% and conforming to IS:15622 of approved make in all colours& shades, 1st quality/ premium quality in flooring laid on 20mm thick cement mortar 1:4(1cement :4sand) including grouting the joints with white cement and matching pigments etc. complete		0.00
31.1	In dark colour and shade etc.		0.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
31.2	(b) Size 600X600mm thickness 9-10mm	sqm	39.30
32	Providing and laying digital print random design(PGVT)/(GVT) vitrified tiles in different sizes with water absorption less than 0.05% and conforming to IS:15622 of approved make in all colours& shades, 1st quality / premium in skirting, riser laid our 12mm thick cement mortar 113 including grouting the joints with white cement and matching pigments etc. complete		0.00
32.1	For skirting, risers etc. glossy/ rustic /stain/matt finished in all colours and shades		0.00
32.2	Size 600X1200 mm thickness 9-10 mm	Sqm	87.90
33	15 mm cement plaster on the rough side of single or half brick wall of mix		0.00
33.1	1:6 (1 cement : 6 sand)	Sqm	74.40
34	20 mm cement plaster of mix :		0.00
34.1	1:6 (1 cement : 6 sand)	Sqm	967.20
35	mm cement plaster of mix : 1:3 (1 cement : 3 sand)	Sqm	162.00
36	Providing and applying white cement based putty of average thickness 1 mm, of approved brand over the plastered wall surface to prepare the surface even and smooth i/c all cost of material, labour and scaffold etc in all position complete. Note : Putty shall be applied only on the internal walls, for application on the exterior walls prior permission of APD/Chief Engineer will be required.	Sqm	1130.00
37	Wall painting by any mechanical or manual means with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work	Sqm	1130.00
38	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	Sqm	250.00
39	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.		0.00
39.1	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre.	Sqm	1130.00
40	Laying old cement concrete interlocking paver blocks of any design/shape laid in required line, level, curvature, colour and pattern over and including 50mm thick compacted bed of sand, filling the joints with sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost).	Sqm	1120.00
41	Demolishing cement concrete manually/by mechanical means including disposal of material within 50 metres lead as per direction of Engineer-in- Charge.		0.00
41.1	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix).	Cum	130.00
42	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	Sqm	334.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
43	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.	Sqm	1567.00
44	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead:		0.00
44.1	Of area 3 sq. metres and below.	Each	14.00
44.2	Of area beyond 3 sq. metres.	Each	14.00
45	Demolishing dry brick pitching in floors, drains etc. including stacking of serviceable material and disposal of unserviceable material within 50 metres lead :	Cum	21.60
46	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	21	666.19
47	Transportation By Mechanical Transport including loading, unloading and stacking.		0.00
47.1	Lime, moorum, building rubbish	Cum	666.19
48	Providing and fixing unplasticised Rigid PVC soil and waste pipes conforming to IS: 13592 Type B including jointing with seal ring conforming to IS : 5382 leaving 10mm gap for thermal expansion. Single socketed pipes for working pressure of 4 kg/sqcm. (minimum wall thickness 3.2mm)		0.00
48.1	75 mm diameter	Rm	10.00
48.2	110 mm diameter	Rm	15.00
49	Providing and fixing unplasticised PVC moulded fittings/ accessories for unplasticised Rigid PVC soil and waste pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.		0.00
49.1	Single tee with door		0.00
49.2	75x75x75 mm	each	2.00
49.3	110x110x110 mm	each	2.00
49.4	Bend 87.50		0.00
49.5	75 mm bend	each	3.00
49.6	110 mm bend	each	3.00
50	Providing and fixing UPVC trap of self cleaning design complete. Including cost of cutting and making good the wall and floors. 100 mm inlet and 75 mm outlet	each	2.00
51	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge		0.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
51.1	Concealed work including cutting chases and making good the walls etc		0.00
51.2	15 mm nominal outer dia .Pipes.	Meter	70.00
51.3	20 mm nominal outer dia .Pipes.	Meter	60.00
51.4	32 mm nominal outer dia .Pipes.	Meter	30.00
52	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings. This included jointing of pipes and fittings with one-step CPVC solvent cement, trenching, refilling and testing of joints complete as per direction of Engineer-in- Charge. External Work		0.00
52.1	32 mm nominal outer dia .Pipes.	Mtr	50.00
52.2	50 mm nominal outer dia .Pipes.	Mtr	30.00
53	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 sand) R.C.C. top slab with Cement Concrete 1:2:4 mix (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:2:4 mix (1 cement : 2 sand : 4 graded stone aggregate 20mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design		0.00
53.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :		0.00
53.2	With well burnt bricks	Each	3.00
54	Providing and fixing square mouth S.W. gully trap class SP1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design :		0.00
54.1	180x150 mm size P type		0.00
54.2	With well burnt bricks	Each	4.00
55	Making soak pit 2.5 m diameter 3.0 Meter deep with 45 x 45 cm dry brick honey comb shaft with bricks of class designation 75 and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design		0.00
55.1	With well burnt bricks	Each	1.00
56	Providing and fixing white vitreous china Anti germ Fluoro-Polymer Coated Water closet squatting pan with 100 mm sand cast Iron P and S- trap, and 7.2 litre Low level, dual flush, PP (Poly Propylene) made open slim wall hung cistern capacity 3 litre/6 litre flushing, with all fittings and fixtures complete including cutting and making good the wall and floors wherever required.		0.00
56.1	White Vitreous china Anti germ Fluoro-Polymer coated Orissa Pattern W. C. Pan of Size 440X575X250mm With integral foot rests. (Premium Range)	Each	2.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
57	Providing and fixing white vitreous china Anti germ fluoro-polymer coated single piece W.C. dual flushing capacity 3 and 6 litre of approved shape with 15mm quarter turn angular stop cock and pvc connection pipe i/c cutting and making good the wall and floors wherever required all fittings and fixtures etc. complete.		0.00
57.1	Anti germ Fluoro-Polymer Coated Single Piece W.C. Pan Size 395X710X730mm with solid poly propelyne made soft closing seat cover.(Premium Range)	Each	2.00
58	Providing and fixing white vitreous china type Anti germ Fluoro-Polymer Coated Wash Basin with 15 mm Table mounted single lever Tall boy basin mixture, (cartridge size 32 mm) 15mm quarter turn angular stop cock, 32 mm C. P. brass made waste coupling length 130mm and 32 mm C. P. Brass Made Bottle Trap size 200x300mm fittings and fixtures complete including Painting of fittings and cutting and making good the wall and floors wherever required.		0.00
58.1	White Vetrious China Anti germ Fluoro-Polymer Coated Wash Basin Size 595x435x185mm with Table mounted single lever Tall boy basin mixture, (cartridge size 32mm.) (Premium Range)	Each	2.00
59	Providing and fixing white vitreous china Flat Back Anti germ Fluoro-Polymer Coated urinal (Inbuilt spreaders, Inbuilt Bottle trap and inbuilt ceramic Waste coupling)with sensotronic concealed type flushing valve for urinal complete set with installation box with control cock complete including painting of fittings and brackets, cutting and making good the wall and floors wherever required .		0.00
59.1	White Vetrious China Anti germ Fluoro-Polymer Coated Urinal Size 340x325x650 mm with sensotronic concealed type flushing valve battery & electrical operated type (9V transformer) for urinal complete set with installation box with control cock. (Premium Range)	Each	2.00
60	Providing and fixing in position best Indian (bonut size 24mm, ceramic disc size 19mm and min. body thickness 2mm, nickel plating. 10 micron and chrome plating 0.3 micron, quarter turn) Angular stop cock. (Premium Range)	Each	4.00
61	Providing and fixing in position best Indian (bonut size 24mm, ceramic disc size 19mm and min. body thickness 2mm, nickel plating 0.10 micron and chrome plating 0.3 micron, quarter turn) 2- way Bib Cock .(Premium Range)	Each	5.00
62	Providing and fixing in position best Indian C. P. Brass made (0.3 micron Chrome and 10 micron Nickel plated) Soap Dispenser with Metallic Bottle. (Premium Range)	Each	5.00
63	Providing and fixing in position best Indian C. P. Brass made (0.3 micron Chrome and 10 micron Nickel plated) Toilet paper holder with Flap. (Premium Range)	Each	4.00
64	Providing and fixing bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	Sqm	1.08

S.no	DESCRIPTION OF ITEMS	Unit	Qty
65	Providing and fixing in position best Indian Health Faucet with 8mm dia 1 meter long Flexible Tube and wall bracket with N. R. V. (non-return wall).(Premium Range Sanitary Ware)	Each	5.00
66	Providing and fixing in position best Indian Auto Closing wall mounted Pillar Cock (with DECOL cartridge) for wash basin use only. (Premium Range)	Each	4.00
67	Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank	per litre	1000.00
68	Supplying and stacking of good earth specific useful for plantation at site including royalty if any and carriage (earth measured in stacks will be reduced by 20% for payment).	Cum	204.00
69	Supplying and stacking at site dump manure from approved source, including carriage (manure measured in stacks will be reduced by 8% for payment) :	Cum	136.00
70	Spreading of sludge, dump manure and / or good earth in required thickness as per direction of Engineer-in-charge (Cost of sludge, dump manure and / or good earth to be paid separately).	Cum	136.00
71	Mixing earth and sludge or manure in the required proportion specified or directed by the Engineer-in-charge.	Cum	136.00
72	Grassing with Selection No.1 grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the grass and good earth shall be paid for separately		0.00
72.1	Providing and laying Selected type of Grassturf with earth 50mm to 60mm thickness on existing ground prepared with proper level and ramming with required tools wooden and than rolling the surface with light roller, making the surface smoothen and light watering the same, as per direction of Engineer-in-Charge	Sqm	557.00
73	Preparation of beds for hedging and shrubbery by excavating further 30cm deep of already prepared trench, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manufacturer reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, levelling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and levelling as directed, within a lead of 50mlift upto 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately)	Cum	4.91
74	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately) :		0.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
74.1	Holes 60 cm dia and 60 cm deep.	Each	40.00
74.2	Holes 45 cm dia and 45 cm deep.	Each	40.00
75	Providing and planting different variety of plants of approved quality and sizes as mentioned including making pits of required size at site, refilled with B.C. Soil mixture manuring and pesticide etc. complete (to be paid separately) including watering and 90 days maintenance from the date of final bill as per direction of Engineer-in-Charge complete in all respect (B.C. Mixture paid separately).		0.00
75.1	Bahunia Tomentosa, Beloperone Species, Caselpinnia Pulcherima, Bird of Paradise, Callandra Emarginata, Callandra Hybrida, Cassia Bi flora, Cassia Laevigata, Cestrum Nocturnum, Dombeya Mastersii, Euphorbia Caracasana, Euphorbia Pulcherima, Excorea bi colour, Excorea tri colour, Ficus Blackii, Ficus Reginold, Ficus Panda, Gardenia, Gulphinia, Jasminoides, Hamelia Pattens, Heliconia, Hibiscus Rosasinensis, Hibiscus Verigated, Hibiscus Viceroy, Jatropha Multifida, Largestomia Indica, Malpighia Coccigera, Murrraya Exotica, Murrraya Koeniggi, Murrraya Sambucum, Mussaenda Erythrophylla, Nerium Oleander, Nyctanthus Arbotristis, Plumbago Capensis, Putranjeeva Roxburghii, Tabernaemontana Coronaria, Tabernaemontana Divaricata, Tecoma Gaudi Chaudi, Tecoma Stans, Thevetia Nerifolia, Thuja Compacta and equivalent plants.	Sqm	16.38
75.2	Allamanda Cathartica, Allamanda Grandiflora, Allamanda Violacea, Begnonia Venustha, Boughan Villas (Variety : Butiana, Lady Mary Bearing, Mahaara, Mohan, Scarlet Queen Variagata, Glabra Formosa, Peruviana Odissi, Partha, Shubhra, Thimma, Spectabillis, L.N. Birla, Refulgens), Clerodendrum Splendens, Clerodendrum Thompsonae, Ipomea Purpurea, Jasminum Grandiflorum, Jasminum Humile (Yellow), Passiflora Caerulea (Rakhi Bel), Petrea Volubilis, Quis Qualis Indica, Tecoma Grandiflora, Veronia Elaeagnifolia (Curtain Creeper), Mandvella, Garlic Creeper, Callimitis	each	20.00
75.3	Alpinia Verigated, Alternanthera species, Aspyragus Myerri, Aspyragus Springenii, Aspidistra, Canna (regular, Dwarf), Chlorodendron Inermii, Chlorophytum (Green), Chlorophytum verigated, Coffea Chinensis, Dianella Verigated, Durranta (Goldiana, Green, Verigated), Euphorbia Milli hybrid, Ipomea (Golden leaves), Iresine herbstii, Juniper Prostata, Juniper Africana, Ophiopogon plant, Ophiopogon jaburan, Portulacaria Afra (jade Plant), Schefflera Green, Schefflera verigated, Setcreasea Purpurea, Syngonium (Butterfly) species, Syngonium miniature, Syngonium Dwarf, Syngonium variegated, Tradescantia, Wadelia Trilobata, Zebrina Tradescantia, Pendanas, Spider Lily Black, Spider Lily verigated, Aclypha (Red, Green, Mini), Lantana (Red, Yellow, Purple, White, verigated), Haemalia Mini and similar plants.	each	20.00
76	Filling mixture of earth and sludge or manure in the desired proportion in trenches, flooding with water and levelling (cost of supplying earth and sludge or manure and mixing excluded)	Cum	136.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
77	Excavation in dumped stones or malba including stacking of serviceable and unserviceable material separately and disposal of unserviceable material lead upto 50 m and lift upto 1.5 m disposed material to be neatly dressed.	Cum	182.00
78	Anti Termite treatment of Lawn area through premise 30.5%l.P, one litre premise diluted in 499 litres water and applying solution @1.00 litre solution per sq.m lawn or bed area. (Two application) i/c cost of chemical and as per direction of Engineer-in-Charge.	Sqm	557.00
	Total		
	Part-B - based on Archaeology, Archives and Museums		
1	Providing and applying pigmented lime wash in 3 coats to internal plaster surfaces with careful mixing of pigments to match existing/proposed colour scheme as per Architect's instructions, Item to include providing test patches for approval of colour and finish by the Architect or Engineer-in-Charge before applying the same	Sqm	144.70
2	Scraping & Removing of white wash/ distemper/oil paint /algae etc from plain plaster & surfaces gently with carefully to keep intact the old designs with the help of chemicals as required.	Sqm	144.70
3	Lime Surkhi Plaster 1:2 (1 Lime : 2 Surkhi) including preparation of mortar by traditional practice (by grinding) in 3 course for base coarse and subsequent course & Loi, tamping, beating, till the shrinkage cracks disappear. The work is to be done with all leads and lift as the work is of restoration nature as per Archaeology practice on old walls and other surface including removal of old loose and decayed plaster, each coat to be done after 3 days of previous coat.		
3.1	25 mm thick (in 3 Coats)	Sqm	155.90
4	Stitching of cracks in brick masonry with stone lintels of 450x 200x50 mm. Chasing, grooving the brick masonry and inserting the stone lintel. All around the stone, lime mortar should be properly packed	Nos	10.00
5	Careful removal of existing deteriorated/ damaged/ weathered lime plaster without damaging the below surfaces and including safety precaution,scaffolding and efficient precise tools for removing of plaster as directed by Engineer-in-charge.	Sqm	155.90
	Total- B		
	Part-C Based on- ELECTRICAL SOR- 2022		
1	Point wiring (excluding metallic switch box & sheet but including switches, sockets, lamp holders/ceiling roses etc) with 1.5sq. mm. PVC insulated cable FRLS with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) ISI marked of suitable size and 1.5sq. mm. PVC insulated FRLS copper earth continuity conductor of green colour inside conduit, screwless connector for joints etc. as required as per specification for :-		
1.1	Light point/fan points		
1.2	Primary short point	Each	45.00
1.3	Primary medium point	Each	30.00
1.4	Primary long point	Each	20.00
1.5	3 Pin 6 Amp socket outlet on separate board		0.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
1.6	Short point	Each	10.00
1.7	Medium point	Each	8.00
1.8	Long point	Each	2.00
2	Point wiring (excluding metallic switch box & sheet but including switches, sockets) for 3 pin 6 Amp. socket outlet point with 1.5sq. mm. PVC insulated cable FRLS with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) ISI marked of suitable size and 1.5sq. mm. PVC insulated copper earth continuity conductor of green colour inside conduit with required materials as per specification on same board.	Each	20.00
3	Wiring for circuit wiring with PVC insulated cable FRLS with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) of ISI marked suitable size etc. as required as per specification		0.00
3.1	2x2.5 Sq.mm	Mtr	590.00
3.2	4x2.5 Sq.mm.	Mtr	300.00
4	Wiring for circuit wiring with PVC insulated cable FRLS with copper multi strand conductor ISI marked in Surface rigid P.V.C. casing and capping of ISI marked suitable size etc. as required as per specification		0.00
4.1	2x2.5 Sq.mm	Mtr	80.00
4.2	4x2.5 Sq.mm.	Mtr	120.00
5	Point wiring (excluding metallic switch box & sheet) for 3 Pin 16 Amp. socket outlet point with 4sq. mm. PVC insulated cable FRLS with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) ISI marked of suitable size etc. with 20/16 Amp. F.T. switch & socket/S.S. combined 20/16/6 Amp. of ISI marked and 4sq. mm. PVC insulated FRLS copper earth continuity conductor of green colour inside conduit, screwless connector for joints as per specification for :-		0.00
5.1	On separate board		0.00
5.2	Medium point	Each	16.00
5.3	Long point	Each	23.00
5.4	Extra long-l	Each	14.00
6	Supplying and drawing single core PVC insulated cable FRLS with copper multi strand conductor ISI marked in existing rigid PVC casing and capping/conduit in surface or concealed as per specification.		0.00
6.1	1.5 sq. mm. Wire		0.00
6.2	1 X 1.5 sq. mm.	Mtr	720.00
7	Same board switch & socket 16 Amp./S.S. combined 20/16/6 Amp	Each	14.00
8	Supplying and fixing of approved make modular type G.I. metal box 1.2mm minimum thick and depth 50mm for single row boxes and 60mm depth for two/three row boxes earth terminal stud with nut and washer with modular base and cover plate including fixing in concealed etc. as required for:-		0.00
8.1	1Or 2 Module metal box	Each	6.00
8.2	4 Module metal box	Each	5.00
8.3	6 Module metal box	Each	6.00
8.4	12 Module metal box	Each	3.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
9	Wiring for sub-mains with PVC insulated cable FRLS with copper multi strand conductor ISI marked in recessed/concealed rigid PVC conduit (HMS) FRLS ISI marked of suitable size (conduit included) including 2mm thick accessories, connection etc., as required as per specification. (Refer General Notes for Classification of Conduit Wiring Point No.11)		0.00
9.1	2 Wire sub main		0.00
9.2	6.0 sq. mm. cable	Meter	60.00
9.3	3 Wire sub main		0.00
9.4	10.0 sq. mm. cable	Meter	40.00
10	Supply of ISI marked and accepted standard of miniature circuit breaker (MCB) of 'C' series with short circuit indication, suitable for 240/415 Volts, 50 Cycle, 10 kA/15 kA Value AC supply conforming to IS : 8828 : 1996, IEC : 60898		0.00
10.1	Single pole		0.00
10.2	MCB SP 6Amp to 32Amp 10kA rating	Each	20.00
10.3	Four pole		0.00
10.4	MCB FP 50Amp to 63 Amp 10kA rating	Each	4.00
12	Supplying and fixing of deluxe fresh air fan with louvers (ventilating fan) with self closing louvers of decorative PVC blades mounting square frame of approved make complete with all necessary material as required		0.00
12.1	250mm RPM1300/1400	Each	9.00
13	Earthing with G.I. earth plate 600mm X 600mm X 6mm thick including accessories and providing masonry encloser in cement mortar, cover plate having locking arrangement on the top and G.I. watering pipe 20mm dia 2.7 Meter long etc. (but without charcoal or coke and salt) complete as required	Each	2.00
14	Add extra for using salt and charcoal/coke for G.I. plate or copper plate earth electrode as required including excavation and refilling the pit in all type of soil, murram		0.00
14.1	Add extra for using salt and charcoal/coke for G.I. plate or copper plate earth electrode as required including excavation in hard rock and refilling the pit with black soil.	Each	2.00
15	Supply and laying 25mm X 6mm G.I. strip at 0.5 Meter below ground level/surface as strip earth electrode including jointing etc. as required.	Meter	30.00
16	Supply of XLPE insulated power cable (conforming IS-7098 Part-I) 1100 Volt grade, 1 core/2 core/3½ core/4 core ISI marked with alu. stranded /solid conductor		0.00
16.1	Armoured 2 core		0.00
16.2	10 sq. mm.	Meter	110.00
16.3	4 core armoured		0.00
16.4	10 sq. mm	Meter	320.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
17	Laying of one number armoured / unarmoured power cable 1.1KV grade of size not exceeding 25 sq. mm direct in ground including excavation in all soil/ murrum /soft rock, sand cushioning, protective covering and refilling the pit etc. as required.	Meter	300.00
18	Laying of one number armoured / unarmoured power cable 1:1 KV grade of size not exceeding 25 sq. mm in the existing RCC hume/stone ware/G.I. pipe/surface in existing trench as required.	Meter	50.00
19	Supplying of approved make TPN MCB DB metal double door IP 43 protection with provision for FP MCB/ Isolator/ RCCB/ RCBO as incomer and SP MCBs as outgoing inclusive of busbar, neutral bar, earth bar, connection copper wire not less than 16 sq.mm & two earth terminals etc. complete as per IS:13032(exclusive of MCB & isolator):		
19.1	4 Way (4+12)	Each	2.00
20	Supplying and fixing PVC conduit as required confirming to IS 9537 (Part-3), ISI marked along with accessories on surface etc. as required.		
20.1	20 mm	R. mtr.	550.00
20.2	25 mm	R. mtr.	500.00
21	supply and drawing single core PVC insulated cable FRLS with copper multi strand conductor ISI marked in recessed/concealed rigid steel ISI marked conduit of suitabe size (Conduit included) including accessories long neck threaded type connection painting etc. as required as per specification (Refer General Notes for Classification of Conduit wiring points No.10)		
21.1	3x2.5+1x1.5 sq. mm cable	mtr	1100.00
21.2	3x4+1x2.5 sq. mm cable	mtr	600.00
22	SUPPLY OF XLPE INSULATED POWER CABLE (Conforming IS-7098 Part-I) 1100 Volt grade 1Core/2 Core/3-1/2 core /4 core isi marked with alu. Standed/ soild conductor		
22.1	4Core 6 sqmm	mtr	200.00
22.2	Laying of one numer armoured/unarmoured power cable 1.1 kv grade of size not exceeding 25 sq. mm direct in ground icluding excavation in all soil/murum /soft rock sand crushing protective covering and refilling the pit etc. are Required.	mtr	200.00
23	Providing, lowering, laying, aligning, fixing in position and jointing atall level/ depths full round HDPE DWC (double wall corrugated)pipes of SN8 grade as per IS 16098 (Part 2) amended upto date intrenches in complete including all material, labour, sectional hydrotesting (including the cost and conveyance of water to site fortesting) and commissioning as per Technical Specifications, drawings and as per direction of Engineer. Note : E/w to be measured and paid separately. Length of pipe shall be measured in between the outer wall of two manholes / Inspection chambers. Pipe in the manhole/inspection chamber's wall shall deemed to be included in the item of manhole/inspection chamber shall not be payable		
23.1	50mm	mtr	200.00
23.2	110 mm	mtr	100.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
24	Earthing with G.I. earth pipe 4.5 metre long and 40 mm dia with masonry encloser in cement mortar, cover plate having locking arrangement on the top etc. (but without charcoal or coke and salt) complete as required	Each	10.00
25	Supply and laying 4.87mm 6 SWG G.I. wire at 0.5 metre below ground level as conductor earth electrode including jointing etc. as required.	mtr	450.00
26	Supply and laying 25mm X 5mm G.I. strip at 0.5 metre below ground level as strip earth electrode including jointing etc. as required.	mtr	450.00
27	Supplying, installation testing and commissioning of 11/0.4 kv 3phase 50cycle oil immersed , naturally cooled , outdoor type transformer connected delta on H.T. side and star on L.T. side dehydrating silica gel breather on eye level rating and diagram plate two earthing terminal lifting lugs oil level gauge drain valve with plug temperature not exceeding 50 Degree C on Load oil filling hole with plug four unidirectional roller arcing horns, explosion vent terminal arrangement bushing on H.V side and cable box on LV side first filling of oil upto desired level and transformer installing on existing structure with all required material arrangement as required ISI marked & as per IS Specification hand operated off load tap changer switch above 100kva oil conservator with drain valve plug 63KVA and above.	each	1.00
28	Providing & Making cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 33 kv/11 kv 3 core XLPE Alum. Conductor cable as required as per specification and as per accepted standard including connection testing complete.		
28.1	11 kv xlpe 3 core Heat shrinkable joint kit 11 kv XLPE 3 CORE		
28.2	HEAT SHRINKABLE JOINTING KIT 11 KV XLPE CABLE O.D. TERMINATION		
28.3	3X16-50 Sq. mm	Nos	6.00
29	Supply of approved High Tension XLPE Cable (Conforming IS- 7098/II/85) as per ISI Standard 3 Core armoured with alu. Solid/stranded conductor ISI Marked as Required		
29.1	3 Core XLPE Cable 11 Kv Grade		
29.2	50 sq. mm	mtr	100.00
	Total-Electrical Work		
	Part D Non-SOR		
1	SITC of centralized commercial RO plant of 500 LPH capacity, completely assembled/pre-piped/ pre-wired, MCB for protection, Auto start/stop based on water level in tank micro processor based control panel for ease of operation and inbuilt process logic, making connection, installation, testing and commissioning complete in all respect	Each	1.00
2	SITC of water cooler 400 ltr storage and 200 ltr cooling per hour	Each	2.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
3	SITC of ISI mark(IS:8472) 1 phase 0.5 HP self priming monoblock pump set of approved make, TEFC, permanent split capacitor type (PSC), fitted with thermal overload protection, mechanical seal, 1440/1500 RPM, single phase(180 to 240 V). Including cost of hardware etc on existing platform complete. Pump shall have following HP Rating, phase, Head, minimum Discharge respectively along with auto on/off sensor.	Each	1.00
4	Providing and laying shaped cobble sand stone 80 -100 mm thick average thickness size of cobal stone 100x100 mm as directed laid on average 25-30 mm thick motor base 1:3 1 (1cement : 3 sand) with admixture of cement hardener of approve make like pidilite, Fosroc or equivalent including compaction and proper embedding/ laying of shaped cobble stone in design with gap of 8 -10 mm all around the stone as directed and filling of the joints with cement motor 1:2 (1 cement:2 send) with pigment to much the colour and shade looking edge with cc (M-20) top cleaning with hard wire brush, finished etc. with all respect including all wastages, transportation etc. complete	Sqm	121.00
5	Providing and Fixing fine dressed "kerb stone (Sand stone) along with path way /gardening, tapper/round with top edges in cement sand mortar 1:3 including pointing with white cement an admixture of pigment complete in all respect as per direction of Engineer in charge. Size 100 x 450 mm	Rmt	570.00
6	Providing, carving and Fixing of interpretive signages in red/ white sand stone of size 1000x2000x100 mm on inclined stone plane engraved map with bottom side carving , top side 2 no. bracket design size 380x305mm . Engraving of letters & Painting with black enamel paint & size of latter complete as per drawing and design. The signage stone shall be fixed on the post of same stone of size 1000x 600 x 100 above ground with necessary earthwork and concreting etc. Complete as per details and drawings and as directed by engineer in charge.	Each	3.00
7	Providing & Fixing of interpretive signages made out of red/ white sand stone of trapezoidal shape having back height 600 mm & front height 280 mm & width on top 50 mm & bottom 300 mm etc. Engraving of letters & painting with black enamel paint & size of letters complete as per details and drawings and as directed by engineer in charge.	Each	15.00
8	Providing and fixing sand stone bench of size 1900x 450mm and 650mm high. The bench to be made using 100mm thick red/white sand stone slabs with carving and 2 No's carved supports size of 200x450x650mm of approved type using relevant fixing details as required or as directed by the Architect Item to include necessary fixing details fixing of bench on floor if required cleaning and hand polishing of sand stone surfaces etc. complete.	Each	10.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
9	Providing & Fixing of Stone Dustbin as per traditional design made out of red/ white sand stone overall size 600(L)x380(D)x700(H)mm . 40 mm thick sand stone as per approved design jaali fixed on 4 pillar size 100x100 thick 700mm height, inside 1 stainless steel container (4mm thick) of size 360 mm bottom, 470 mm top and 530 mm height fixed with pivot system supported with stone pillar fixed in ground 200 mm embedded in ground with necessary earthwork and concreting etc. Complete as per details and drawings and as directed by engineer in charge.	Each	6.00
10	Vinyl Print with installation Providing & Fixing Printed Vinyl Graphics on Punned or Levelled Surface of (3M or Equivalent) , 3M Scotch print controltac & comply wall graphics IJ 180 C + 8520 over Plywood / MDF or Laminate. Cost to include cleaning for any stains, scaffolding for height upto 4000mm from FFL Make of vinyl: 3M, LG, Avery	Sqm	381.80
11	40 mm thick machine-cut Sand stone (Red Shivpuri/ Basodha or local stone matching colour and hardness properties) on steps/ tread/ riser/ Landing/ Flooring, Best Quality Stone, as approved by Engineer-in-charge, with specific design and as per drawing up to any height, with necessary scaffolding /centering etc., over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 sand) including pointing with cement mortar 1:2 (1 cement : 2 sand) with an admixture of pigment to match the shade of stone. For protection of stone, from weathered action coats of protection layer shall be apply on whole stone surface area, Stonework should have coated of water repellent silicone free (transparent in colour) in two or more coats of clear coat of make Killick Gaurd pidilite / k2 / Nippon/ equivalent. The process of coating should be followed: (i) cleaning of stone (ii) rubbing and polishing of stone (iii) first coat of clear algae and after drying of this coat, (iv) second coat of clear HD shall be applied. All this coating shall be done with spray paint machine until complete impregnation. All work shall be done in a satisfactory manner and as per instructions of Engineer-in-charge.	Sqm	497.00
12	Providing & fixing of Multi Activity Play System Play Area : 11.0 mtr. X 6.5 mtr. X 3.5 mtr. (ht)(approx) Kids Capacity: 10-25 Kids, Age Group 4-15, 3 nos. Decks, Spiral Slide(Rotomolded Plastic 5' ht), Double Wave Slide (1.20mtr Ht - FRP), Inclined Bridge (6' L), Sunshine Roof (FRP -1nos.), Spring Climber , Easy Entry Ladder, Closed Panel, T-Swing Double, Material- FRP & Steel . All Steel Components all powder coated with anticorrosion treatment and FRP components are paint by 03 layers of PU Paint.	Nos	1.00
13	Providing & fixing of four seater sea saw, made of M.S. Pipe 42 OD of 2 to 3 mm thickness, Seats - structure made of FRP(4 TO 5 MM Thick, Handrails - structure made of M.S. 1" Pipe Round Pipe finish with PU Paint over two coat of epoxy primer Play Area, 2.5 Mtr.x 2 Mtr (approx) Height : 1 mtr (approx) kids Capacity: 8 Kids	Nos	2.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
14	<p>Furniture for seating- Bench</p> <p>Providing and fixing of wooden benches with approximate size of 1800mm (Length) , 450 (Width), and 450mm (Height), made with appropriate sections of sheesham wood stained and 60x40x4 mm thk powder coated MS hollow section (grade 201 and above) legs to be provided, Top to be made as 50mm thick solid sheesham wooden top ,bottom & side covering with 12mm thk fire retardant plywood on all sides as per details mentioned in the drawing. Finishing coats shall be sprayed on the surface in two or more coats as required till the Engineer in charge/ Architect is satisfied with the result.</p> <p>Treated with anti-termite coatings and finished within superior quality PU coating, colour as specified. Finishing coats shall be sprayed on the surface in two or more coats as required till the Engineer-in-charge/ architect is satisfied with the result. Colour as per the instruction of the Engineer in charge/ Architect.</p> <p>To be completed as per approved drawing, design, sample and direction of the engineer-in-charge/ architect. Contractor/ Vendor should have to prepare one sample and only after getting it approved from the Engineer in charge/ Architect, they should start the actual production. Top side to be measured</p>	Sqm	17.30
15	<p>Projection Screen</p> <p>Providing and fixing of 6 mm the flat Acrylic Solid Surface (ben +12 low VOC fully fire retardant Ply as cladding on existing wall/M.S frame/WPC Surface has to be finished as matte for projection to be played on this.</p> <p>To be completed as per approved drawing, design, sample and direction of the engineer-in-charge/ architect. Contractor/ Vendor should have to prepare one sample and only after getting it approved from the Engineer in charge/ Architect, they should start the actual production.</p>	Sqm	89.40
16	<p>Providing & fixing of Reception Table Top made of 45 mm thick Second class teak wood , all exposed surfaces & Internal support made of 45 mm Second class teak wood finish with melamine polish . Internal shelves shall be of 19 mm thick teak wood. all inside surface of ply to be finish with melamine polish . Table all side 150x35 mm teak wood molding polish finish as per drawing at front. 25mm thick wood shutters cover of Shelf fixed with hinges finish with polish. Table will be provided Drawer mobile & desktop pedestal fitted with meta box sliding system and front mounted single lock system Key Board Tray etc. complete .Item to include all necessary hardware including concealed SS hinges, concealed SS handles, SS knobs, locks, screws, nails, fevicol, etc. Table depth 680 mm . Table front Area to be measured</p>	Sqm	4.34
17	<p>Providing and fixing of plinth platforms sizes to be finalised with the approval of Engineer-in-charge/ Architect, based on the artefact sizes. Constructed as a box with powder coated MS hollow section 50 x 50 mm x 3.6 mm thk spaced @600 mm C/C; covered on all five sides with 19 mm thick fully fire low VOC ply fixed to the MS box section, finished all sides with Pu Paint colour as per selection. To be completed as per approved drawing, design, sample and direction of the engineer-in-charge/ architect. Contractor. Item to be paid as per the Length x Breadth x Height of the finished pedestal.</p>	Cum	7.67

S.no	DESCRIPTION OF ITEMS	Unit	Qty
18	<p>Providing and fixing of plinth platforms size to be finalised with the approval of Engineer-in-charge/ Architect, based on the artefact sizes. Constructed as a box with first class teakwood of size 50x50mm spaced @600 mm C/C; covered on all five sides with 19 mm thick fully fire low VOC ply fixed to the wooden box, finished all sides with Pu Paint/Polish colour as per selection.</p> <p>The glass cover for the showcases made of 8mm thick extra clear toughened glass to be provided on all 5 sides, bonded neatly together at the edges with glass-glass adhesives from companies like 3M or equivalent; and fixed to an aluminium extruded profile/teakwood; provision to fix the selected light to be given in the structure. Best quality acrylic Props to mount the artwork to the showcase to be included. Lockable (small round showcase locks from the make of Yale, Hafele, Godrej etc; lockable from bottom) plywood base to be fixed to another 12mm thk upholstered base with microfibre fabric to be provided as finishing surface to keep the artefacts. Colours as per instruction. To be completed as per approved drawing, design, sample and direction of the engineer-in-charge/ architect. Contractor. Item to be paid as per the Length x Breadth x Height of the finished pedestal.</p>	CUm	31.57
19	<p>Providing & fixing display cabinet 600mm deep Constructed as a box with powder coated MS hollow section 50 x 50 mm x 3.6 mm thk spaced @600 mm C/C 19 mm thick fully fire low VOC ply fixed to the wooden box finished all sides with Pu Paint/Polish colour as per selection. Front glass to be extra clear mm (5+5+1.5) 11.5 mm thick laminated toughened . Glass to be fixed with 50x100 First class teak wood member finished with Pu Paint including required Ghana teak wood mounding, beading including antitermite treatment as per suitable size complete. provision to fix the selected light to be given in the structure. Best quality acrylic Props to mount the artwork to the showcase to be included. Lockable (small round showcase locks from the make of Yale, Hafele, Godrej etc; lockable from bottom) plywood base with required hardware, powder coated fittings complete as per design, drawing and as directed by incharge. Mode of Measurement item to be paid as per front side</p>	Sqm	30.15

S.no	DESCRIPTION OF ITEMS	Unit	Qty
20	Providing & fixing display cabinet 750 mm deep Constructed as a box with powder coated MS hollow section 50 x 50 mm x 3.6 mm thk spaced @600 mm C/C 19 mm thick fully fire low VOC ply fixed to the wooden box finished all sides with Pu Paint/Polish colour as per selection. Front glass to be extra clear mm (5+5+1.5)11.5 mm thick laminated toughened . Glass to be fixed with 50x100 First class teak wood member finished with Pu Paint including required Ghana teak wood moulding, beading including antitermite treatment as per suitable size complete. provision to fix the selected light to be given in the structure. Best quality acrylic Props to mount the artwork to the showcase to be included.Lockable (small round showcase locks from the make of Yale, Hafele, Godrej etc; lockable from bottom) plywood base with required hardware, powder coated fittings complete as per design, drawing and as directed by incharge. Mode of Measurement item to be paid as per front side	Sqm	21.60
21	Providing and placing in position chair of the following specifications.The cushioned seat assembly shall consists of insert polyurethane foam upholstered with foam laminated mesh fabric. The back shall be made up of two piece injection moulded frame. The inner frame shall be upholstered with mesh fabric and mounted on the main assembly. Indicative size of back shall be (W)-47cm, (H)-58.5cm & indicative size of seat shall be (W)-48.5cm x (D)-50.0cm, armrest shall be injection moulded with height adjustable up to 4.5+/-0.5cm in 3 steps. The mechanism of chair shall have following features:360 degree revolving type synchro mechanism, Tilt tension adjustment, 3 position locking with Anti-Shock feature. Spine bracket shall made of 10mm thick MS Flat CRCA grade duly powder coated connecting back with mechanism. The Chair shall be provided with pneumatic height adjustment which shall have stroke of 10.0 +/- 0.3 cm. The pedestal shall be made of die-cast polished aluminium. it shall be fitted with 5 nos twin wheel castors. The size of the pedestal shall be 66.0 +/- 0.5 cm pitch-centre-dia (76.0 +/- 1.0 cm with castors). The twin wheel castors shall be injection moulded in black nylon.Overall dimensions (Indicative) of Chair shall be, Width of Chair - 76.0cm, Depth of Chair - 76.0 cm as measured from pedestal below. Height from ground - min 980.0 to max 108.0 cm. Seat height - min45.0 to 54.0 cm. Dimensions tolerance / variations shall be within +/- 1 cm, MESH FABRIC: Mesh Fabric shall be 100% Polyester weighing not less than Weight: 370 GSM, having abrasion value of over 50000, fastness to colour greater than 4, fastness to rubbing 4 or better(BS 1006 (1990)). SEAT FABRIC: Seat Fabric shall be 100% Polyester weighing not less than Weight: 257GSM, having abrasion of over 36000, fastness to colour greater than 4.5, fastness to rubbing 4 or better(BS 1006 (1990)). POLYURETHANE FOAM: 45kg/m3 or higher density foam in seat as per manufacturer's specifications. ARMREST ASSEMBLY: The armrest assembly shall be per manufacturer's specifications having armrest structure in polished CHROME with 3 directional adjustable PU arm tops.The products should be as per BIFMA	Each	6.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
22	Providing, & fixing of Sheesham Wood chair with cushion finish with Polished as per reference image. The size of chair shall be: 450mm height of seat back height 270mm seat size 450x450x25-30mm thick , leg size 50x50 mm thick, 30x50 mm thick support complete with required hardware as per design, and as directed by in charge.	Each	14.00
23	Providing and fixing of modular round table with work top made of 25mm thick pre-laminated particle board of interior grade II as per IS 12823:1990 with flat edges, work top clad with decorative laminate on front as per standard and back side with white balancing .Flat edges duly sealed with 2mm thick machine pasted PVC beading. Table shall have four legs made of welded prime quality CRCA steel, "C" Type Metal Powder coated legs in 50mm square pipe of 1.6m thick, leg have level adjuster PVC shoes with plastic color shoes cap, both leg joined with Aluminium die casted brackets through rectangular tubular pipe of 40x40mm size and 1.6mm thickness. All CRCA steel components / parts powder coated of 50-60 micron. The products should be as per BIFMA standards. The boards used should meet international standards of quality and safety, Indian standard IS 12823 grade II should meet long time loadbending, screw - withdrawal strength and modulus rupture and modulus of elasticity bending test as per IS 2380 . complete as per the approved sample/image/ shop drawing by supplier and as per the direction of Architect & Engineer-In-Charge. Size of (dia)2400x(h)750.	Each	1.00
24	Supply & fixing of Book Almirah/self with 5 compartments made of 0.8 mm thick CR steel sheet, powder coated with 50 microns film thickness and Door frame width should be 40 mm. The item should be equipped with a heavy duty lock and the two doors should have 5 mm glass with aluminum handle and aluminum profile doors. Overall size should be 914(W)x480 (D)x1980(H)mm. Materials.Heavy duty Bush should be provided and each compartment Height should be of minimum 330mm. The body & door Frame color approved colour .	Each	10.00
25	Supply & fixing of clock room Locker – with 18 individual compartments made of 0.8 mm thick CRCA steel sheet, powder coated with 50 microns film thickness .The item should be equipped with a heavy duty lock. Overall size should be 910(W)x400 (D)x1850(H)mm. Materials.Heavy duty Bush should be provided and each compartment Height should be of minimum 300mm. The body & door Frame color approved colour .	Each	1.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
26	Providing and fixing of modular table with work top made of 25mm thick pre-laminated particle board of interior grade II as per IS 12823:1990 with flat edges, work top clad with decorative laminate on front as per standard and back side with white balancing .Flat edges duly sealed with 2mm thick machine pasted PVC beading. Table shall have four legs made of welded prime quality CRCA steel, "C" Type Metal Powder coated legs in 50mm square pipe of 1.6mm thick, leg have level adjuster PVC shoes with plastic color shoes cap, both leg joined with Aluminium die casted brackets through rectangular tubular pipe of 40x20mm size and 1.6mm thickness. Table with hydraulic desk port with provision of 6 amp three pin power point, voice, data for cat 6 wire , USB , HDMI and VGA point. All CRCA steel components / parts powder coated of 50-60 micron. The products should be as per BIFMA standards. The boards used should meet international standards of quality and safety, Indian standard IS 12823 grade II should meet long time loadbending, screw - withdrawal strength and modulus rupture and modulus of elasticity bending test as per IS 2380 (Part 4 ,Part 13 and Part 14). complete as per the approved sample/image/ shop drawing by supplier and as per the direction of Architect & Engineer-In-Charge. Size of (L)1800x(W)750x(H)750.	Each	3.00
27	Providing and fixing Tactile model of Citadel (Orchha Forts) model size of 3000x2000mm model base height 800mm, model height as per scale .Model base made of m.s section frame 50x50x3.6mm to be coated with powder coated. Model make of hyper realistic FRP work with terrain monochromic colour effect. water made from epoxy, civilization/structures made in plastic / wood & appropriate material with polish, including of model lighting system for illuminating the block through openings for special effects, terrane development content complete as per drawing & design and direction of Engineer- in - charge.	Each	1.00
28	Providing & making FRP high relief mural of Events in Chandra Shekhar Azad life. made in Fiber-glass FRP casting with M.S frame work (square pipe)on wall with proper welding jointing support for FRP layers. M.S. frame to be coated with zinc oxide and painted black with epoxy paint. The FRP work shall be maintain 8 to 10mm thickness FRP finish with painted as per provided reference images. Professional study & visual content development and creation of visual reference documents with reference images by artisans , craftspeople and vendor. installed at site with necessary hardware as per approval of engineer-in-charge/ museum consultant.	Sqm	9.00
29	Providing & installing Hyper Realistic Life Size fiber glass Mannequins as per Photos Provided by Consultant made from fiber glass resin, Structure to be supported by iron fabrication ,the sculpture should be finishing with PU, colour,The work includes complete installation of the sculpture as per direction of Engineer-in charge		
29.1	Man (Standing Posture) life size human measurement	Each	4.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
30	Soft Components for Community Engagement	Job	1.00
	Total		
	Part-E- Electrical & AV Non SOR		
1	SITC of Main Distribution Panel with approx. Incoming of 3 Phase 125A - 1nos and approx. outgoing 8nos of 3 Phase 16-32A . A timer with real time clock to be provided inside the panel.	Nos	10.00
2	SITC Junction Boxes for intermediate connection for water proof connectors and glands upto size of 300*300*120 mm	Nos	32.00
3	SITC of IP boxes for termination and drivers upto 100*100*70mm	Nos	38.00
4	SITC of IP54 , IK08 LED bollard comprises of specially contoured spun aluminium top cover with circular polycarbonate capping spacer and ventilating knob. Luminaire made up of Extruded aluminium alloy (grade 6063) with die-cast aluminium components and non corrosive SS fasteners. Decorative die-cast aluminium rook base with leaf decoration. Translucent acrylic diffuser, aesthetically enhanced with ornamental spiral strip. Mounting plate Die cast aluminium double powder coated with an anchorage unit and stainless steel fixing screws.Cable entries for through-wiring of mains supply cable. Prewired with E27 holder (Max 13W LED)and suitable for operation on 240V, 50Hz single phase ac supply. Height - 1045mm	Nos	24.00
5	SITC of Linear Wall Washer having approx wattage of 24W LED , compact and minimalist linear surface mounted / recessed designed for wall, Ceiling & floor mount. Having Beam angle 15° / 35°/ 15°x50°. Luminaire made of extruded aluminium alloy (grade 6063) of high corrosion resistance and non corrosive A2 stainless steel fasteners. Stainless steel mounting bracket with an adjustable feature from 0°-45° facilitate proper aiming of the luminaire at desired angle. Toughened glass. IP67 male and female connectors for easy series connection. Protection class IP65. Available colour temperature are 3000K / 4000K / 6500K, Colour rendering index (CRI)>80. SDCM≤ 3 MacAdam. LED module with expected service life of at least 54,000 operating hours. Constant voltage non integral power supply at 24Vdc assures safety. Luminaire having approx dimension : 1000mm length x 34mm width x 52mm height. CE & BIS Certified. Inhouse NABL certification.	Nos	24.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
6	SITC of MINILED are compact IP67 , IK08 LED fittings suitable for down light, Wall recessed and walkover for both indoor & outdoor applications with small dimension flush mounting installation. It should be equipped with a screwless round front ring in STAINLESS STEEL with Narrow Beam / Asymmetric Beam / Medium Beam & Diffused Beam. These fixtures should be perfect for creating very defined effects of accent light. The body of the luminaire should be screwless from front ring and shall made from solid billet of 316 grade stainless steel, ensuring IP67 rating silicone seal gasket, with toughened clear glass diffuser 4mm thickness, clear polycarbonate optical lens. Luminaire must be hard wired with 2 x 0.5mm ² cable of 0.5 metre length shall be supplied with mounting sleeve for preparing recessed opening in ground or wall. Having approx wattage of 3W, with available temperature 3000K/2700K/4000K, CRI >80 .	Nos	12.00
7	"Supply , installation and commissioning of Ip65 LED bollard of 48W Light with available temperature of 3000K, 4000K, 6500K ,230-240Vac CRI >85 MacAdam step 3 approx Height 3350mm with Light Distribution 360° and Electronic driver ON/OFF CE and BIS Light Column. Made up of Extruded aluminium bottom ribbed pipe (grade 6060 T6 with test certificate) Ø100 x 3mm thickness & die-cast aluminium top cover(grade ADC12 with test certificate). SS fasteners. Clear silicone gaskets. ADC12 aluminium service door 348mm height x 81mm width at 300mm height above the base plate shall be provided with the company logo embossed on the bottom of the door and safety rope. The control gear tray is prewired with 2.5 Sq.mm cable, 6A MCB and 32A terminal connectors for loop-in / loop-out arrangement. MS mounting plate Sq. 200 x 12mm thick steel of grade E250 to IS 2062:2011 with 4 elongated holes 38 x 19 to suit M16 bolts at CC140. This mounting steel plate along with foundation bolts of suitable size to be used for ensuring firm grouting into the specially designed foundation pole. Hot dip galvanised foundation bolt. Mechanical resistance IK10. Pure polyester powder coated process : Mild shot blast & pure polyester powder coating. Translucent polycarbonate diffuser of 2.5mm thickness with light emission. Lamp fixed position. This luminaire contains built-in LED modules. LED modules are engineered accordingly to the existing regulations of Lumen Maintenance (LM80) and Technical Memorandum (TM21), Lifespan of the luminaire > 56,000 hours at 40°C. Operating ambient temperature range is from -15°C to +50°C. Driver efficiency >85%, power factor >0.95, THD <10%, Surge protection 4KV. as per architectural design requirement.	Nos	7.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
8	SITC of 3W spike / surface mounted compact spot light designed to provide directional light. Beam angle 8° / 12° / 24° / 40° / 60° / 40°x11°. Luminaire made of pressure die cast aluminium alloy of high corrosion resistance and non corrosive stainless steel fasteners. Clear toughened glass of 4mm thickness. Surface mounting spike made of polypropylene black. Hybrid optical lens for higher efficiency, lower optical losses with optimum glare suppression. Swivel range of 0° - 90°. Single cable entrance M10 cable gland. Protection class IP66. Mechanical resistance IK06. Pure polyester powder coated graphite grey / anthracite grey / jet black. Available colour temperature 3000K / 4000K, Colour rendering index (CRI)>80. SDCM-3 MacAdam. K-Lite LED module with expected service life of at least 60,000 operating hours. Prewired with LED driver and suitable for operating on 240V, 50Hz single phase ac supply. Luminaire dimension : 93mm length x 90mm width CE & BIS Certified .As per Architectural design requirement and complete in all respects . Inhouse NABL Certified laboratory Make : Abby/ Osram/Philips /K-lite or equivalent .	Nos	10.00
9	SITC of 6W spike / surface mounted compact spot light designed to provide directional light. Beam angle 15° / 25° / 40°. Luminaire made of pressure die cast aluminium alloy of high corrosion resistance and non corrosive A2 stainless steel fasteners. Clear toughened glass of 4mm thickness. Surface mounting spike made of polypropylene black. Hybrid optics with lens & mirror finish pure aluminium reflector combination for higher efficiency, lower optical losses with optimum glare suppression. Swivel range of 0° - 90°. Single cable entrance M10 cable gland. Protection class IP66. Mechanical resistance IK06. Pure polyester powder coated graphite grey / anthracite grey / jet black. Available colour temperature 3000K / 4000K / 5700K, Colour rendering index (CRI)>80. SDCM-3 MacAdam. K-Lite LED module with expected service life of at least 60,000 operating hours. Prewired with LED driver and suitable for operating on 240V, 50Hz single phase ac supply. Luminaire dimension : 101mm length x 90mm width CE & BIS Certified. As per Architectural design requirement and complete in all respects . Inhouse NABL Certified laboratory Make : Abby/ Osram/Philips /K-lite or equivalent . .	Nos	12.00
10	Supply, Installation testing and Commissioning of 12W surface wall mounted light designed to provide security lighting . Beam Angle 120 degree . Luminarie made up of die cast aluminium with non corrosive SS fasteners.Non yellowing UV stabilized translucent polycarbonate diffuser for glare free,uniform light distribution.Protection class - IP65 . Mechanical resisatance IK08. Pure polyester powder coated graphite grey / anthracite grey / jet black. Available colour temperature 3000K / 4000K / 5700K, Colour rendering index (CRI)>80. SDCM-3 MacAdam. LED module with expected service life of at least 60,000 operating hours. Prewired with LED driver and suitable for operating on 240V, 50Hz single phase ac supply.As per Architectural design requirement and complete in all respects . Inhouse NABL Certified laboratory	Nos	15.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
11	Supply of 6000mm pole is a contemporary design of extruded aluminium alloy can achieve high strength and corrosion resistance in various atmospheric conditions. Pole made of rectangular aluminium pipe section (grade 6063 with test certificate) 150mm x 100mm x 3mm thick with 5984mm Height Single arm rectangular aluminium bracket, 1000mm length bottom bracket (50W LED) . Both bracket pipe section 150mm x 100mm x 3mm thick. 50W LED Module are engineered accordingly to the existing regulations of Lumen Maintenance (LM80) and Technical Memorandum (TM21), ifespan of the luminaire > 60,000 hours at 40°C, Operating ambient temperature range is from -15°C to +50°C. Driver efficiency > 88%, power factor > 0.95, THD < 10%, Surge Protection 6KV, High Brightness, LED Light source do not pose any environment risks. Excellent thermal management heat sink. High efficiency polycarbonate optical cover.IP65 Ingress protection. IK09 impact protection. Colour rendering index(Ra) >80. Colour temperature 3000K / 4000K / 5700K.	Nos	8.00
12	Supply of 6000mm pole is a contemporary design of extruded aluminium alloy can achieve high strength and corrosion resistance in various atmospheric conditions. Pole made of rectangular aluminium pipe section (grade 6063 with test certificate) 150mm x 100mm x 3mm thick with 5984mm Height asymmetrical arm rectangular aluminium bracket, 1000mm length bottom bracket (50W LED) mounting on pole at 3984mm from the base plate & 900mm length top bracket (50W LED) mounting on pole at 5984mm from the base plate. Both bracket pipe section 150mm x 100mm x 3mm thick. 50W LED Module are engineered accordingly to the existing regulations of Lumen Maintenance (LM80) and Technical Memorandum (TM21), ifespan of the luminaire > 60,000 hours at 40°C, Operating ambient temperature range is from -15°C to +50°C. Driver efficiency > 88%, power factor > 0.95, THD < 10%, Surge Protection 6KV, High Brightness, LED Light source do not pose any environment risks. Excellent thermal management heat sink. High efficiency polycarbonate optical cover.IP65 Ingress protection. IK09 impact protection. Colour rendering index(Ra) >80. Colour temperature 3000K / 4000K / 5700K.	Nos	7.00
13	SITC of indoor pendant/ recessed / surface mounted magnetic track with accessories . Length - 1mtr Make :- Abby / Eurolite /IBL	Mtr	300.00
14	Supply, Installation, Testing and Commissioning of 8-10W , Adjustable spotlight with adapter for installation on track. Made of die-cast aluminium with passive dissipation system. The spotlight to be rotated by 360° and tilted by 90°. Beam angle as per requirement inside the gallery as approved by Engineer incharge ; Aesthetically appealing design, Colour Temperature 2700/3000/4000K; CRI ≥ 90; Life Time LED> 50,000h. Make :- Abby / Eurolite /IBL	Nos	155.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
15	Supply, Installation, Testing and Commissioning of 15-18W Adjustable spotlight with adapter for installation on track. Made of die-cast aluminium with passive dissipation system. . Integrated power line technology allows each spotlight on the track to be adjusted separately. The spotlight to be rotated by 360° and tilted by 90°. Beam angle as per requirement inside the gallery as approved by Engineer incharge ; Aesthetically appealing design, Colour Temperature 2700/3000/4000K; CRI ≥ 90; Life Time LED> 50,000h. Make :- Abby / Eurolite /IBL	Nos	140.00
16	Supply, Installation, Testing and Commissioning of 7-10W Adjustable spotlight & framer spot light with adapter for installation on 48V low voltage track. Made of die-cast aluminium with passive dissipation system. . Integrated power line technology allows each spotlight on the track to be adjusted separately. The spotlight to be rotated by 360° and tilted by 90°. Beam angle as per requirement inside the gallery as approved by Engineer incharge ; Aesthetically appealing design, Colour Temperature 2700/3000/4000K; CRI ≥ 90; Life Time LED> 50,000h.	Nos	21.00
17	Supply, Installation, Testing and Commissioning of 14.7W IP 20 Miniaturised wall washer fixture with adapter for installation on 48V low voltage track. Made of extruded aluminium with passive dissipation system. Beam angle as per requirement inside the gallery as approved by Engineer incharge; Aesthetically appealing design, Colour Temperature 2700/3000/4000K; CRI (mim.) 90; Life Time LED> 50,000h Make :- Abby / Eurolite /IBL	Nos	20.00
18	Supply, Installation, Testing and Commissioning of 12.6 W IP 20 Miniaturised downlighter fixture with adapter for installation on 48V low voltage track. Made of extruded aluminium with passive dissipation system. Beam angle as per requirement inside the gallery as approved by Engineer incharge; Aesthetically appealing design, Colour Temperature 2700/3000/4000K; CRI (mim.) 90; Life Time LED> 50,000h Make :- Abby / Eurolite /IBL	Nos	32.00
19	SITC of IP 20 driver for track upto 150W .	Nos	28.00
20	SITC of 1-chip DLP LASER Phosphor Multimedia Projection system having, 6500-7000 Lumens 20000 hours lamp life, 1920 x 1200 WUXGA Native Resolution, Inbuilt blending and warping with automatic calibration software, 3D ready, 300000:1 Contrast Ratio, inputs: HDBaseT,HDMI2.0, DVI-D, Active 3D, Motorised zoom and focus, alongwith 0.65-0.75 lens & projector mountin bracket etc. complete with installation as per the site requirement. including software and accessories , Approved Make- Christie , NEC, Barco	Nos	2.00
21	SITC of 1-chip DLP LASER Phosphor Multimedia Projection system having, 9600 Lumens 20000 hours lamp life, 1920 x 1200 WUXGA Native Resolution, Inbuilt blending and warping with automatic calibration software, 3D ready, 3000000:1 Contrast Ratio, inputs: HDBaseT,HDMI2.0, DVI-D, Active 3D, Motorised zoom and focus, alongwith 0.65-0.75 lens & projector mountin bracket etc. min offset 110%V and 50%H power consumption shuld not be more than 660W, including all accessories complete with installation as per the site requirement.	Nos	2.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
22	SITC of DLP Solid state(Laser Phosphor) Projection system with ultra short throw lens maximum throw ratio 0.25 UST having Min. of 5000 Lumens, 3D available, 1920 x 1200 Resolution,1800:1 Contrast Ratio, illumination Life 20000 hours, Motorised zoom and focus Inputs: HDMI 24/7 operation, 3D ready. Inputs: 1 x VGA in/out, 2 x HDMI , 3G-SDI in/out Controls: 3D sync in/out, RS232, Audio in/out stereo. Should be complete with mountin bracket etc. including all accessories complete with installation as per the site requirement.	Nos	6.00
23	Supply of 3D Projection mapping software, Playback control System to manage, schedule and control the media severs. It should have direct control on inputs and media timelines. It should have an option of being controlled by an external unit integrated with the software. to complete the job with all respects.	Nos	7.00
24	SITC of Display media server with minimum 4 HD outputs as required , synced together. Original windows 10/11 Professional with i7 six core CPU with Rugged cooling system. with 32GB RAM, 2 nos 512 NVME drives raid 0 drives for media playback , 1 nos. 256 GB NVME for operating. It should also have genlock and framelock capability. Should also have Art-net Ethernet in/out. to complete the job with all respects with compatible graphics card with minimum 4 output. complete the job with all respects.	Nos	6.00
25	SITC of 65" UHD 4K High End Interactive Display with specification Contrast Ratio 4000:1 , Resolution 3,840 x 2,160, Pixel Pitch (HxV) 0.372 x 0.372 mm, Brightness (Typical) 350 cd/m ² (220 cd/m ² with glass) , 8 MS Response time, Integrated Touch , Color Gamut 72 % Glass Haze 2 % (without glass) & lrm, H-Scanning Frequency 30~81 kHz, Maximum Pixel Frequency 594 MHzV-, Scanning Frequency 48~75 Hz, HDMI In 2USB 1, Audio Out Stereo Mini Jack, RS232 In Yes, RJ45 In, WiFi , Bluetooth, Power Supply AC 100~240 V 50/60 Hz, Power Consumption (On Mode) 181.5 W, Touch Technology In Glass,Multi Touch with Mini PC with minimum 13th Gen Core i7 1360P Processor, 12 Cores,5.00 GHz 32GB DDR4 ram, 1 tb SSD NVME, 2 x Thunderbolt 4 , 2 x HDMI 2.1, 2.5G LAN, WiFi 6E and Bluetooth 5.3 , compatible graphics card windows 10/11 pro including software with mounting and accessories.	Nos	3.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
26	SITC of 55" UHD 4K High End Interactive Display with specification Contrast Ratio 4000:1 , Resolution 3,840 x 2,160, Pixel Pitch (HxV) 0.372 x 0.372 mm, Brightness (Typical) 350 cd/m ² (220 cd/m ² with glass) , 8 MS Response time, Integrated Touch , Color Gamut 72 % Glass Haze 2 % (without glass) & lrm, H-Scanning Frequency 30~81 kHz, Maximum Pixel Frequency 594 MHzV-, Scanning Frequency 48~75 Hz, HDMI In 2USB 1, Audio Out Stereo Mini Jack, RS232 In Yes, RJ45 In, WiFi , Bluetooth, Power Supply AC 100~240 V 50/60 Hz, Power Consumption (On Mode) 181.5 W, Touch Technology In Glass,Multi Touch with Mini PC with minimum 13th Gen Core i7 1360P Processor, 12 Cores,5.00 GHz 32GB DDR4 ram, 1 tb SSD NVME, 2 x Thunderbolt 4 , 2 x HDMI 2.1, 2.5G LAN, WiFi 6E and Bluetooth 5.3 , compatible graphics card windows 10/11 pro including software with mounting and accessories.	Nos	4.00
27	SITC of 2-way IP55 rated (as per IEC 529) indoor/outdoor surface mounted music loudspeaker. The loudspeaker shall meet the following performance criteria: Usable Frequency range (-10dB) of 65Hz to 20kHz; Power handling of 200Watt peak; Nominal dispersion of 130°(H) × 130°(V); Sensitivity of 87 dB SPL and Max SPL of 110 dB SPL peak; Nominal impedance of 8 Ohms with an Integral multi-tap Transformer with selectable tap settings of 6/12/25/50W@100V or better. The loudspeaker system shall be comprised of a powder-coated aluminum grill; 5.25-inch weather-treated woofer and 1-inch neodymium dome tweeter coaxially mounted enclosed in engineered-plastics with an In-built waveguide designed to provide uniform area coverage across the loudspeakers frequency range.	Nos	4.00
28	SITC of 2-way IP55 rated (as per IEC 529) indoor/outdoor surface mounted music and PA loudspeaker. The loudspeaker shall meet the following performance criteria: Usable Frequency range (-10dB) of 75Hz to 20kHz; Power handling of 100Watt peak; Nominal dispersion of 135°(H) × 135°(V); Sensitivity of 84 dB SPL and Max SPL of 104 dB SPL peak; Nominal impedance of 8 Ohms with an Integral multi-tap Transformer with selectable tap settings of 6/12/25W@100V or better. The loudspeaker system shall be comprised of a powder-coated aluminum grill; 3.25-inch weather-treated woofer and 0.75 inch neodymium dome tweeter coaxially mounted enclosed in engineered-plastics with an In-built waveguide designed to provide uniform area coverage across the loudspeakers frequency range.	Nos	8.00
29	SITC of directional dome speaker. The speakers shall meet the following performance criteria: Usable Frequency response 80Hz – 20KHz +/- 2dB*; Power handling of 50 watts peak per channel;; Sensitivity of 102dB SPL 1 watt, 1 meter@ 1kHz ; Nominal impedance of 6 Ohms Isolation 12 dB , Stereo Separation 10 dB, including Amplifier Minimum: 1 watts continuous per channel From floor to bottom edge of dome.	Nos	1.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
30	SITC of integrated high impedance Class D Dual Zone Amplifier with output power of 2 x 120 W @ 70/100 V ; Frequency Response - 55 Hz - 20 kHz (+0/-3 dB, @ 1 W reference 1 kHz) ; THD+N - ≤1 % (at full rated power); Channel Separation (Crosstalk) - ≤-60 dBV (below rated power, 1 kHz); A/D and D/A Converters - 24-bit / 48 kHz; Audio Latency - 10.4 ms - (any input to speaker output or aux output); THD <0.3% at rated power. Channel Separation ≤ -60 dBV (below rated power, 1 kHz), Dynamic range > 88 dB. Maximum Input Level : +10 dBV or better. 1 balanced page/priority input, 3 unbalanced line inputs; built in loudspeaker EQs. Shall include output for expansion amplifier and remote controller (Wired) for source as well as volume control.	Nos	2.00
31	SITC of integrated high impedance Class D, with Amplifier Power as 1 x 90 W @ 70/100 V ; Frequency Response - 60 Hz - 20 kHz (+0/-3 dB, @ 1 W reference 1 kHz) ; THD+N - ≤1 % (at full rated power); Channel Separation (Crosstalk) - ≤-60 dBV (below rated power, 1 kHz); A/D and D/A Converters - 24-bit / 48 kHz; Audio Latency - 10.4 ms - (any input to speaker output or aux output) ; Maximum Input Level : +10 dBV or better. 1 balanced page input, 1 balanced mic/line input, 2 unbalanced line; built in loudspeaker EQs. Shall include output for expansion amplifier and remote controller (Wired) for source as well as volume control.	Nos	4.00
32	Content Creative Concept Note, Narration Script, Visual Storyboard, Creative Visual Direction, Design & Artwork, (Including photos & Videos & Illustrations), Music Composition & arrangement (Including musicians, instruments, singers, chorus artists) Sound Effects, Sound Mixing, 2D Animations, 3D projection Animations Motion graphics, Visual Effects (VFX), Voice Over recording supervision ,Rendering as per media server formats . duration 1-2 minutes	Nos	16.00
33	Supply, Installation, Testing & Commissioning of 32 "touchscreen kiosk: One single unit along with Metal Frame indoor housing from the same covering with 12mm Low Voc BWP Ply finish with 6 mm thick high density bendable acrylic solid surface approved colour , Touch screen specifications:- Full HD resolution, Brightness :400 cd2 or higher, Native Contrast Ration 4,000 : 1 or higher, 10 touch or more, capacitive touch, Response time 10 MS or more, In-Built Factory Fitted Speaker 10W x 2, Auto Cooling, Auto Heating, Anti Vandal Glass(8mm or better), Anti Reflection Coating, Auto Brightness Sensor, Powder Coated, Air Looping System, Temperature Operation (°C) -30 to 50, Temperature Operation (°C) -30 to 50, Humidity Non-condensing (%) 20 to 80. Certifications of LED : BIS, FCC, CE and UL. with Mini PC with minimum 13th Gen Core i7 1360P Processor, 12 Cores,5.00 GHz 32GB DDR4 ram, 1 tb SSD NVME, 2 x Thunderbolt 4 , 2 x HDMI 2.1, 2.5G LAN, WiFi 6E and Bluetooth 5.3 , compatible graphics card windows 10/11 pro including software with mounting and accessories. (Approved makes : Samsung, LG and Panasonic	Nos	1.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
34	Supply, installation, testing and commissioning of Diagonal Size-55",Panel Type,Resolution-3840*2160 (4K UHD),Brightness-300 nit,Contrast Ratio-4000:1,Viewing Angle(H/V)-178/178,Response Time-8 ms,Display Colors-16.7M,Color Gamut-72%,Dynamic C/R-mega,Audio-Built in Speaker(10W + 10W),Input Type-HDMI 2.0 (2),HDMI 2.0 (2),USB 2.0 x 1,Stereo Mini Jack, HDMI/Audio(Common),Output Type-Stereo Mini Jack,Duty Cycle-16/7,Special features-UHD Signage with Built-in MagicInfo Lite,Haze 2%,Temperature Sensor,Clock Battery(168hrs Clock Keeping), Built in Speaker(10W 2ch), IP5x Rating, Auto Source Switching & Recovery,,LFD Home UI, Button Lock, Hot key option, Plug&Play (Initial Setting)External Control-RS232C(in) thru stereo jack, RJ45,Power Consumption(Max)-154 W/H OR LESS,Standby Mode Power-200*200,Operating Temperature-0 °C ~ 40 °C,Humidity-10 % ~ 80.0 %,Safety-CE, UL & BIS,EMC-Class B.Make- Samsung/NEC/Christie	Nos	5.00
35	SITC of 8 Port POE+ Managed Gigabit fiber Switch with Minimum 65 Watts Power Budget & 100/1000X Fiber SFP Ports , 8 x 1000BASE-T PoE+, 1000 gbps.	Job	2.00
36	SITC of following accessories for the above items(for Azad Park & Raja Mahal)- The equipment should be operational from central control room. All the control equipment of all the AV & Screen, cables, fiber cable, electrical panel, media converter, video transmitter and receiver, network cable and switch, connector, console, Speaker cable, keyboard mouse etc. Programming to be considered to run the equipment/gallery seamlessly with any central location or individual location	Job	2.00
37	SITC of following accessories for the above items(for Jahangir Mahal)- The equipment should be operational from central control room. All the control equipment of all the AV & Screen, cables, fiber cable, electrical panel, media converter, video transmitter and receiver, network cable and switch, connector, console, Speaker cable, keyboard mouse etc. Programming to be considered to run the equipment/gallery seamlessly with any central location or individual location	Job	1.00
38	Supply, Installations, Testing & Commissioning of Bharat AC001 EV Charger (ARAI/NABL certified) suitable for 2/3 wheeler vehicle charging, Input Power : 3-phase 400V (+/- 10%) 9.9KW, 50HZ, 03 O/P Socket of each having 3.3KW, 16A, with IEC 60309, IP-54, operating temperature 50 Degree C, Protection: Over current, Under voltage, Overvoltage, Residual current, Surge protection, Short circuit, Over temperature, Emergency Stop, Emergency shutdown, Indication: Available, Charging, Fault message on display & LED colour change of output, TFT LCD with touch display, RFID Based (Default) and App QR Charging Communication: Ethernet (standard); 3G/4G GSM SIM and WIFI, OCPP v1.6J & other standard accessories complete as per Bharat Standard specifications Inclusive of 5 Year Complete Warranty	Nos	3.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
39	Supply, Installations, Testing & Commissioning of DC Fast 60KW CCS2 EV Charger (ARAI certified) suitable for car charging, Input Power : 3-phase 400V (+/- 20%), 50HZ, Dual O/P voltage range 150-1000VDC, 125A Per Gun, IP-54, IK10, operating temperature 50 Degree C, Simultaneous Charging with shared power with 4 mode charging, Protection: Over current, Under voltage, Overvoltage, Residual current, Surge protection, Short circuit, Over temperature, Emergency Stop, Emergency shutdown, Force Air cooled, Indication: Charging Process Status, Alarm, warning message, 7" LED Touch Screen display, RFID (ISO/IEC14443 or Mi Fare), or Through Mobile Application or Password and App QR Charging, Communication: Ethernet (standard); 3G/4G GSM SIM, CAN Bus /RS 485, OCPP v1.6J & other standard accessories complete as per Bharat Standard specifications Inclusive of 5 Year Complete Warranty .	Nos	1.00
40	Provision of Bidder Owned CMS & Mobile app as per below shared specifications along with operation for public charging application: 1) Cloud based Deployment Ready Software CMS based on OCPP 1.6 J.2) Scalable to add more EV Charging points as and when new Charging points added by MPTB 3) Real-time status monitoring of Chargers Managing & controlling access 4) User Management (Master User, Login/Logout, Captcha), Credential Management, Change Password/Forgot Password, Profile / Role Management, Role Management ,Permission Management 5) On-line Invoicing & Billing (Energy and other charges, GST of Both parties) 6) CP Usage/Booking report, Status Report, Billing Report, Transactions count, Energy consumed, Hours of utilization, Revenue generation report 7) Event logs/ Transaction /Billing/ Invoicing search. 8) OCPP Transactions : Event Logs/ All Transactions / Active Transactions / Transaction Billing & Invoice / Search a Transaction 9) OCPP 1.6 compliant charging system 10) Notifications/Reminders to Mobile Apps Enterprise, SMS, E-Mail for Charging Events, Payment Events, Charging Station Updates, Pricing Updates 11) Apps for Android & IOS Platform to be provided 12) All charging station viewable on geographic map with status indication and relevant details, 13) Navigation information, Shortest Route (Charging station Direction is shown on app 14) Cost calculator for charging. 15) User Authorization through QR code/OTP 16) Charging process User Authorization & Charger operation 17) User Notification, alerts & reports 18) End-to-end data protections to ensure no data is lost or corrupted 19) SSL Encryption shall be available		
40.1	On Boarding of Charger on CMS With Integrations	Nos	4.00
40.2	Operational Cost For Running Charging Stations Along with User app (per KWhr)	kWhr	100.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
41	Supply and customization as per design of E-Rickshaw/E-Cart as per the specifications 'Fully electric, Battery Operated Motor driven, Maximum speed 25kmph , Range 110km (minimum),For a full charge of the battery, to be tested with full load at maximum speed, Motor output power-48V, 650W or more, Battery Voltage-48V , Battery Capacity-130Ah, Charging Time 5-8 Hours, GVW / GCW (Kgs)-750-800 kg, Seating Capacity-D+4 Passenger, Number of Tyre-3, Make-JSA Auto, Mahindra Electric, Yatri, Terra motors	Nos	10.00
	Total		

Madhya Pradesh State Tourism Development Corporation (MPSTDC)			
Orchha : A Medieval Splendour (SASCI Project)			
Conservation and Interpretation Works at City Level			
Abstract			
S.no	DESCRIPTION OF ITEMS	Unit	Qty
	Part-A- Based on Archaeology, Archives and Museums SOR 2022		
1	Providing and laying lime concrete in super structure with 20mm down graded brick bats nominal size and 50% lime mortar comprising of 1 lime putty : 1 Surkhi : 1 coarse sand rammed and finished with gur and belgiri treatment including scaffolding if necessary complete	cum	450.00
2	Providing and fixing in position Cast Iron grills or railings of any pattern shapes design including cutting and line welding of iron and necessary bolting with nut, bolts & fastener wherever required etc including all material complete.	Kg`	1800.00
3	Removal of plant/Ficus growth by pulling out root system embedded in masonry, cutting stem and branches carefully and safe disposal of cut wood at designated dumping site including dismantling of necessary masonry whenever and wherever required and making good the same as directed by Engineer- in-charge etc. complete.		
3.1	Girth over 0.15 m to 0.30m	Each	50.00
4	Providing and fixing matching Stone Khurra (Ramp way)30cm long and 10CmX10Cm dimension in face(in plan) or as per matching with site dimension and pattern with approved stone, fixing of khurra in grinded lime surkhi/ sand mortar 1:2, making khurra with rough chisel dressed stone of stone fixing vertically as per direction of Engineer-in-Charge. (Khurra should be non slippery surface)	Each	44.00
	Total		
	Part-B Based on PWD SOR -2024		
1	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	100 sqm	19200.00
2	Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches removing the roots and stacking of serviceable material and disposal of unserviceable material.		
2.1	beyond 30 cm girth up to and including 60 cm girth	Each	500.00
3	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying a priming coat of approved steel primer.	kgs.	5138.00
3.1	E.R.W. tubes.		
4	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade: Two or more coats on new work.	Sqm	363.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
5	Providing and fixing frame work for partitions/ wall lining etc. made of 50x50x1.6mm hollow MS tube, placed along the walls, ceiling and floor in a grid pattern with spacing @ 60 cm centre to centre both ways (vertically and horizontally) or at required spacing near opening, with necessary welding at junctions and fixing the frame to wall/ ceiling/ floors with steel dash fasteners of 8 mm dia, 75 mm long bolt, including making provision for opening for doors, windows, electrical conduits, switch boards etc., including providing with two coats of approved steel primer etc. complete, all as per direction of Engineer- in-charge.	Sqm	1107.00
6	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid board one side white colour and other side of board laminated with PVC foil of minimum 14 micron thickness of approved design pasted with hot melt adhesive for cup boards, work stations and bathroom/ kitchen cabinet etc. of required sizes comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N(Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel piano hinges/soft close clip on concealed hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In-Charge. (Note: stainless steel piano hinges/soft close clip on concealed hinges and necessary S.S screws shall be paid separately)		
6.1	18 mm thick	Sqm	109.00
7	Finishing walls by only mechanical or manual means with textured exterior paint of required shade: New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm.	sqm	573.50
	Total- B		
	Part C Non-SOR		
1	Manually removal of vegetation (major trees, climbing plants, creepers) from walls, columns, arches, floor etc in a skilled and careful manner, using appropriate tools and means and without causing any damage to the adjoining parts, including carrying and stacking the dismantled materials including lift/lower upto 11mtrs and lead upto 50 mtrs as directed by the engineer or architect in charge. The exposed surfaces will be coated with a paste made from ammonium sulphamate crystals or with "Tree killer" available in market. In this condition the root system may be left to absorb and die. Large sections of dead wood must not be left within the core. As they decay they will remove support and create voids and weaknesses in the wall. But pull off a well - established mat of vegetation must be resisted. Tamping, grouting, pointing and resetting of brick / stones especially on wall top, must all be anticipated as remedial work	Sqm	600.00

S.no	DESCRIPTION OF ITEMS	Unit	Qty
2	Providing, carving and Fixing of interpretive signages in red/ white sand stone of size 1000x2000x100 mm on inclined stone plane engraved map with bottom side carving , top side 2 no. bracket design size 380x305mm . Engraving of letters & Painting with black enamel paint & size of latter complete as per drawing and design. The signage stone shall be fixed on the post of same stone of size 1000x 600 x 100 above ground with necessary earthwork and concreting etc. Complete as per details and drawings and as directed by engineer in charge.	Each	4.00
3	Providing & Fixing of interpretive signages made out of red/ white sand stone of trapezoidal shape having back height 600 mm & front height 280 mm & width on top 50 mm & bottom 300 mm etc. Engraving of letters & painting with black enamel paint & size of letters complete as per details and drawings and as directed by engineer in charge.	Each	4.00
4	Providing and fixing sand stone bench of size 1900x 450mm and 650mm high. The bench to be made using 100mm thick red/white sand stone slabs with carving and 2 No's carved supports size of 200x450x650mm of approved type using relevant fixing details as required or as directed by the Architect Item to include necessary fixing details fixing of bench on floor if required cleaning and hand polishing of sand stone surfaces etc. complete.	Each	8.00
5	Providing & Fixing of Stone Dustbin as per traditional design made out of red/ white sand stone overall size 800(L)x350(D)x700(H)mm . 2 nos carved pillar size 150x150 thick 700mm height, hanging 1 M.S container (4mm thick) of size 450 (L)x350(D)x550(H)mm fixed with pivot system supported with stone pillar fixed in ground 200 mm embedded in ground with M-15 - Grade concrete with necessary earthwork and concreting etc. Complete as per details and drawings and as directed by engineer in charge.	Each	4.00
6	Vinyl Print with installation Providing & Fixing Printed Vinyl Graphics on Punned or Levelled Surface of (3M or Equivalent) , 3M Scotch print controltac & comply wall graphics IJ 180 C + 8520 over Plywood / MDF or Laminate. Cost to include cleaning for any stains, scaffolding for height upto 4000mm from FFL Make of vinyl: 3M, LG, Avery	Sqm	109.00
7	Providing & fixing of 3 mm thick Corten Steel Laser Cut jaali versus pattern and design finish with approved colour & shade. Fixing in powder coted M.S tube section size as per site requirement including Hilti fenster with grouting screw, anchor bolt etc. complete, all as per direction of Engineer- in-charge.	Sqm	144.00
8	Dry boulder wall construction including dressing and laying of stones, scaffolding etc. complete including procuring and provision of stone boulders to reconstruct damaged walls.	cum	964.50
9	Dry boulder wall construction including dressing and laying of stones, scaffolding etc. complete using existing stone boulders sourced from the location of the site to reconstruct damaged walls.	cum	2415.00
	Total Part-C		