

(i)	Lot-3: IT Equipment for Draughtsman-Civil Trade	Minimum Specification with Required Value/Range.	Total Qty	UoM	Specification by the Supplier (To be filled by the Supplier)	Pass/Fail (By Purchaser)
22	Desktop Computer (Latest version) with 20-Inch Colour Monitor	Specification of Computer (Work Station) Intel Core i7-6500T Processor or Higher, Minimum 8-16 GB DDR4 RAM, 1TB 7200 RPM SATA Hard Disk Drive, • HD Graphics, 2 GB dedicated Graphics, minimum 19 Inch LED Display Monitor, 3 MB Cache or better, Integrated Gigabit Ethernet (10/100/1000). • USB Mouse, USB Keyboard, Standard Ports USB 3.0; USB 2.0; 1 VGA; 1 HDMI. • 1head phone/microphone jack; 1 RJ-45. DVD RW, Audio & Mic. port, Licensed Windows 10 Pro 64-bit Operating System / OEM Pack (Preloaded). •Antivirus - Total Security/Total Protection for 3 years.	4	Nos		
23	Laptop	Intel® Core™ i5-7200U with Intel HD Graphics 620, 2.5 GHz, • 3 MB cache, 16 GB DDR4 - 2133 SDRAM, • 1 TB 7200 RPM SATA Hard Disk Drive, • DVD+/-RW, 15.4 inch HD Display, Dual Band Wireless-AC 3168 802.11a/b/g/n/ac, Bluetooth, • Media reader, USB 3.0; USB 2.0; 1 VGA; • 1 HDMI; 1 headphone/microphone combo jack; • 1 AC power; 1 RJ-45, Touchpad, • 3 hrs or more battery backup, • licensed Windows 10 Pro 64 bit operating System, • Antivirus - Total Security/Total protection, 3 Year Extended warranty, Carry Case	4	Nos		
24	Plotter (A0 Size)	Plotter Specification: Plotter -Online(Max. A0 size). • Print size: 36" (A0+) in Min. 5 Colours. • PRINT QUALITY:- Resolution Best(colour & b/w) Min. 2400 x 1200 optimized dpi, Normal (colour & b/w) : Minimum 600 x 600dpi, • Handling:- Sheet feed, roll feed, input tray, automatic cutter. Number of cartridges: 8 of 130ml ink, • Processor: 600MHz or Higher, Memory: Minimum 500 MB Normal, HDD-Min-1TB. Connectivity: WiFi, Fast Ethernet (100Base-T), Hi-Speed USB 2.0 or higher. • PRINTING SPEED:- Plain Paper Max. 1.5 min (Standard Mode), Coated Paper Max. 3 min. • Warranty: At least for two years with One year extended. • Spares and consumables for three years quoted Separately. • AMC Rates post warranty to be quoted Separately. • Plotter Enclosure: Fully enclosed to avoid Spillage and should be as per OEM standards. • Three Sets of operating, Installation& Maintenance and Spare part manual.	2	Nos		
25	Printer (Laser) with Scanner	• Laser Jet printer Latest model – Print, Copy and Scan (Multipurpose). • Printing Paper Size- Monochrome Laser Printer A4 Size. • Page per minute: min. 25 or higher • Print resolution - 2400 x 1200 or higher • Optimized dpi from 1200 x 1200 input dpi or higher. • Preferably with Wi-Fi support,	2	Nos		

		Hi-Speed USB connectivity. Hi-Speed USB & Ethernet 10/100 Mbps Network connectivity, 28PPM speed, Auto duplexing, 256 MB internal memory • Sheet Capacity at least 250 Sheets (A4) / 200 Sheets (A3), Auto duplexing, Energy star certified. • Warranty: At least for two years with one year extended, • AMC Rates post warranty to be quoted separately. With all necessary Softwares, Drivers, cables and Full capacity cartridge.				
26	Server work station with latest configuration	Server for LAN –Intel® Xeon® E3-1240 v5 (4 core, 3.5 GHz, 8MB L3, 80W), 16 GB memory (2x8GB), 4 DIMM Slot and one 460W power supply, • Dynamic Smart Array B140i, 4 PCIe 3.0 expansion slots, DVD Rw Optical Drive, 4 SATA hot plug HDD Bays, 1 TB x 2 Sata HDD hot pluggable, 1Gb 332i Ethernet Adapter 2 Port per controller, 3/1/1 • Server Warranty: At least for one years with two year extended,	2	Nos		
27	Broad Band connection	Broad Band Internet Connectivity Via separate Broadband or centralised Internet sharing through Intranet in Institute, Minimum recommended speed of 2-4Mbps.	2	Nos		
28	UPS 5-kVA	UPS Specification: UPS 5 KV with 30 min backup for 20pcs. • Model : 3 Phase In - 3 Phase Out ; Capacity (Rated Power) : 05 KVA ; Technology : Double Conversion Low Frequency switching PWM, using IGBT modules • Input Voltage : 360 V to 450 V ± 5V AC, Three Phase ; Frequency : 45 ~ 55 Hz ; • Phase: Three Phase Three Wire (compatible for Phase reversal); Generator Compatibility. • Output Voltage: 400V AC Ph. to Ph. ± 2% on 100% unbalance Load; (Adjustable to 380V AC to 415V AC). • Frequency : 50 Hz ± 0.5% ; Linear load : < 3% • Non-Linear load : < 5% ; Waveform ; Pure Sine Wave : Overload Capability : 125% for 2 minutes/150% for 30 seconds . • Crest Factor : 3: 1 (Max) ; • Short Circuit Protection : Instant ; Manual Bypass : Inbuilt upto 15 KVA ; Static Bypass (Optional) (Externally) < 10ms ; • Inverter/Overall Efficiency: 85% ~ 92% ; Battery : DC Voltage 360 VDC (Recommended Battery Capacity Min. 42 AH; 12 Volt ;30 Nos.) . • LED for UPS Status and LCD for Voltage, Current & Frequency. • Audible Alarm : For Battery Low, DC High, Output High, Overload : Noise Level ≤ 50 dB. • Transient Response: For 100% Step Load charges ± 5% and Recovers to Normal within 20 ms. • Ambient Temperature: 0-45° C ; Relative Humidity : 0-95% Non-Condensing. • Cooling: Forced Air-Cooled. • Ethernet or USB interface for management, Emergency Power Off System. • With well-ventilated Battery Rack. (iron make).	4	Nos		
33	DLP Projector (2000 lumens or higher)	DLP Projector Specification. • Multimedia Projector with minimum 2000 Lumens. • Minimum resolution - XGA, DLP,	4	Nos		

		LED, Laser or Hybrid. • Minimum Lamp hours in normal mode – 5000 hrs, Eco Mode – 10000 hrs. • Contrast Ratio 15000:1, Video Compatibility with NTSC, PAL, SECAM, Interface – D-sub 15 pin(Input), Optional D-sub 15pin (Output). • HDMI, Audio in/out, in built Speaker (Approx. 10 watt), USB, LAN (RJ45) (optional), Wi-Fi (802.11b/g/n). Auto Power on, Direct power on/off. • Ceiling mountable, remote and ceiling mount kit.				
35	Screen for Projector (motorized)	Screen Material Max White. • Diag. Size and Aspect Ratio at least 4:3 or better. • Viewing Angle 180 degree. • Greenguard certified. • Motor Type Synchronous = 84"-128" Tubular = 142"-180" • With RS232 capable, RJ45 INPUT port. • Wireless 5 – 12V Trigger • Infrared Remote	4	Nos		
40	Smart Board / Inter Active Board	Product Dimensions:6 x 4 feet , Color: White • Product type: Touch Based, Finger Touch also, Pen Based. • Operating System: Windows. • (With Interactive Device, Small Mount,10 mtr USB Connector. • LED Interactive PEN.	4	Nos		
59	DVD's (RW) & PEN DRIVE (16 GB minimum)	64 GB pen Drive, Metallic Housing, USB 3.0, 30 MB/S write speed, 90 MB/s Read Speed,	4	Nos		
60	POCKET HARD DISK (1 TB minimum)	Portable External Hard Disk: 2.0 TB portable 2.5 inch hard disk, Covercase: Smartfish hard case, USB 3.0 Interface Connectivity, integrated power and data cable. 120 Mb/s data transfer speed, backward compatibility,	4	Nos		
64	Xerox Paper	Xerox Paper-A3 & A4 size, 90GSM	100	Nos		
65	Laser Toner Cartridge.	Laser Toner Cartridge: Ultraprecise, dual-polymer toner for clear, sharp text, smooth greyscales and deep blacks, Water resistant. Compatible with suitable model with good performance.	6	Nos		
67	MS Office Software	MS Office 2016 or Latest Professional version. • Subscription at least for three years.	4	Nos		
(ii)	Lot-3: IT Equipment for Draughtsman-Mechanical Trade					
10	Desktop Computer(Lattest version) with 20-Inch Colour Monitor	Specification of Computer (Work Station) Intel Core i7-6500T Processor or Higher, Minimum 8-16 GB DDR4 RAM, 1TB 7200 RPM SATA Hard Disk Drive, • HD Graphics, 2 GB dedicated Graphics, minimum 19 Inch LED Display Monitor, 3 MB Cache or better, Integrated Gigabit Ethernet (10/100/1000). • USB Mouse, USB Keyboard, Standard Ports USB 3.0; USB 2.0; 1 VGA; 1 HDMI. • 1headphone /microphone jack; 1 RJ-45. DVD RW, Audio & Mic. port, Licensed Windows 10 Pro 64-bit Operating System / OEM Pack (Preloaded). •Antivirus - Total Security/Total Protection for 3 years. Warranty: At least for one years with two year extended. • AMC Rates post warranty to be quoted separately. (Preferred System type- all in one	8	Nos		

		type system)			
11	Sever (True dedicated sever).	Server for LAN –• Intel® Xeon® E3-1240 v5 (4 core, 3.5 GHz, 8MB L3, 80W), 16 GB memory (2x8GB), 4 DIMM Slot and one 460W power supply, • Dynamic Smart Array B140i, 4 PCIe 3.0 expansion slots, DVD Rw Optical Drive, 4 SATA hot plug HDD Bays , 1 TB x 2 Sata HDD hot pluggable, 1Gb 332i Ethernet Adapter 2 Port per controller, 3/1/1 • Server Warranty: At least for one years with two year extended, • AMC Rates post warranty to be quoted separately.	1	Nos	
12	Software : M.S Office Latest version , CAD with latest Licensed version ,Latest version of SOLID WORKS , AUTODESK INVENTOR, CATIA & PRO E (CREO-2)	I) MS Office 2016 or Latest Professional version. Subscription at least for three years. II) Auto CAD 2017 or Latest Education version, III) CATIA - V6 Supply and installation of or Latest Education version, Minimum Licence of Solid & Surface Modelling, Assembly, Automatic Drafting, Annotation. Geometrical Dimensioning & Tolerancing (GD&T) etc. General condition: Software's should be perpetual educational version along with Tutorials, Videos & training documentation. At least 2 weeks for Auto CAD & 2Weeks for CAD/CAM - Onsite training & Installation of software. Warranty & Subscription at least for three years. Software should be Perpetual licenses along with Tutorials ,Videos & Documentation At least One week Onsite training after Installation of software Subscription at least for three years With one year extended.	8	Nos	
13	Plotter (A0 Size)	Plotter Specification: Plotter -Online(Max. A0 size) • Print size: 36" (A0+) in Min. 5 Colours. • PRINT QUALITY:- Resolution Best(colour & b/w) Min. 2400 x 1200 optimized dpi, Normal (colour & b/w) : Minimum 600 x 600dpi , • Handling: Sheet feed, roll feed, input tray, automatic cutter. Number of cartridges: 8 of 130ml ink, • Processor: 600MHz or Higher, Memory: Minimum 500 MB Normal, HDD-Min-1TB. Connectivity:-WiFi, Fast Ethernet (100Base-T), Hi-Speed USB 2.0 or higher. • PRINTING SPEED:- Plain Paper Max. 1.5 min (Standard Mode), Coated Paper Max. 3 min. • Warranty: At least for two years with One year extended. • Spares and consumables for three years quoted Separately. • AMC Rates post warranty to be quoted Separately. • Plotter Enclosure: Fully enclosed to avoid Spillage and should be as per OEM standards. • Three Sets of operating, Installation& Maintenance and Spare part manual. • At least One week training (Onsite post Commissioning).	1	Nos	
14	Printer(Laser)	Laser Jet printer Latest model – Print, Copy and Scan (Multipurpose). • Printing Paper Size- Monochrome Laser Printer A4 Size. • Page per minute: min. 25 or higher. • Print resolution - 2400 x 1200 or higher • Optimized dpi from 1200 x 1200 input dpi or higher. • Preferably with Wi-Fi support,	1	Nos	

		Hi-Speed USB connectivity. Hi-Speed USB & Ethernet 10/100 Mbps Network connectivity, 28PPM speed, Auto duplexing, 256 MB internal memory • Sheet Capacity at least 250 Sheets (A4) / 200 Sheets (A3), Auto duplexing, Energy star certified. • Warranty: At least for two years with one year extended, • AMC Rates post warranty to be quoted separately.				
15	UPS 5-kVA	UPS Specification: UPS 5 KV with 30 min backup for 20pcs. • Model : 3 Phase In - 3 Phase Out ; Capacity (Rated Power) : 05 KVA ; Technology : Double Conversion Low Frequency switching PWM, using IGBT modules • Input Voltage : 360 V to 450 V ± 5V AC, Three Phase ; Frequency : 45 ~ 55 Hz ; • Phase: Three Phase Three Wire (compatible for Phase reversal); Generator Compatibility. • Output Voltage: 400V AC Ph. to Ph. ± 2% on 100% unbalance Load; (Adjustable to 380V AC to 415V AC). • Frequency : 50 Hz ± 0.5%; Linear load : < 3% • Non-Linear load : < 5% ; Waveform ; Pure Sine Wave ; Overload Capability : 125% for 2 minutes/150% for 30 seconds . • Crest Factor : 3: 1 (Max) ; • Short Circuit Protection : Instant ; Manual Bypass : Inbuilt upto 15 KVA ; Static Bypass (Optional) (Externally) < 10ms ; • Inverter/Overall Efficiency: 85% ~ 92% ; Battery : DC Voltage 360 VDC (Recommended Battery Capacity Min. 42 AH; 12 Volt ;30 Nos.) . • LED for UPS Status and LCD for Voltage, Current & Frequency. • Audible Alarm : For Battery Low, DC High, Output High, Overload : Noise Level ≤ 50 dB • Transient Response: For 100% Step Load charges ± 5% and Recovers to Normal within 20 ms. • Ambient Temperature: 0-45° C ; Relative Humidity: 0-95% Non-Condensing .• Cooling: Forced Air-Cooled. • Ethernet or USB interface for management, Emergency Power Off System. • With well-ventilated Battery Rack. (iron make). • AMC Rates post warranty to be quoted Separately. • Warranty: 1 Year Warranty & 2 Years Extended Onsite Warranty.	2	Nos		
24	LCD Projector	LCD Projector Specification. • Multimedia Projector with minimum 2500 to 3500 Lumens. • Minimum resolution - XGA, DLP, LED, Laser or Hybrid. • Minimum Lamp hours in normal mode – 5000 hrs, Eco Mode – 10000 hrs. • Contrast Ratio 15000:1, Video Compatibility with NTSC, PAL, SECAM, Interface – D-sub 15 pin(Input), Optional D-sub 15pin (Output). • HDMI, Audio in/out, in built Speaker (Approx. 10 watt), USB, LAN (RJ45) (optional), Wi-Fi (802.11b/g/n). Auto Power on, Direct power on/off. • Ceiling mountable, remote and ceiling mount kit. • Warranty: At least for two years with One year extended.	1	Nos		
25	External storage devices(8 GB)	Portable External Hard Disk: 2.0 TB portable 2.5 inch hard	2	Nos		

		disk, Covercase: Smartfish hard case, • USB 3.0 Interface Connectivity, integrated power and data cable. • 120 Mb/s data transfer speed, backward compatibility. • Minimum 2 year replacement warranty.				
30	Printer(3D)	3D printer specification : Build Volume- 25-30 cm (minimum) Length x 15-20 Width x15-20 cm , Total 10,000 cm cube (minimum). • Min/ Max Layer Resolution -Minimum 100/400-500 Micron. • Material- PLA should not be HAZARDS. • Warranty. At least for three years with One year extended. • Spares and consumables for three years to be quoted separately. • AMC Rates post warranty to be quoted separately. • Machine Enclosure: Fully enclosed to avoid spillage and should be as per standards. • Three Sets of Machine operating and programming manual. • One Sets of Installation, Maintenance and Spare part manual. • At least two week training (Onsite post commissioning). • Details of similar machine installed in India min 3nos.	1	Set		
36	Pen Drive	64 GB pen Drive, Metallic Housing, USB 3.0, 30 MB/S write speed, 90 MB/s Read Speed, 2/3 years warranty	2	Nos		
47	Laser Toner Cartridge.	Features: Ultraprecise, dual-polymer toner for clear, sharp text, smooth greyscales and deep blacks, Water resistant test to ensure printing won't fade and be diluted when wet Printing quality test to ensure the printing is real black, sharp, no slur and won't fade. Mechanical test to ensure the toners smooth operation and no noise. 100% Compatible with suitable model with good performance.	1	Nos		
(iii)	Lot-3: IT Equipment for Surveyor Trade					
88	Desktop Computer(Lattest version) with ArcGIS Pro Software	A) Specification of Computer (Work Station) Intel Core i5/i7-6500T Processor or Higher, Minimum 8-16 GB DDR4 RAM, 1TB 7200 RPM SATA Hard Disk Drive, • HD Graphics, 2 GB dedicated Graphics, 21 Inch LED Display Monitor, 3 MB Cache or better, Integrated Gigabit Ethernet (10/100/1000). • USB Mouse, USB Keyboard, Standard Ports USB 3.0; USB 2.0; 1 VGA; 1 HDMI. • 1headphone/microphone jack; 1 RJ-45. DVD RW, Audio & Mic. port, Licensed Windows 10 Pro 64-bit Operating System / OEM Pack (Preloaded). • Antivirus - Total Security/Total Protection for 3 years. Warranty: At least for one years with two year extended. • AMC Rates post warranty to be quoted separately. • (Preferred System type- all in one type system). B) Software: Arc GIS Pro software licence (Latest Education version) • Arc GIS pro 10.5.1 or Latest Education version software for Basic & advances applications. • Arc GIS pro provides professional 2D and 3D mapping	10	Nos		

		visualization, analytics, image processing, data management, and integration. • Software should be Perpetual licenses • Along with Tutorials, Videos & Documentation. • Software should be computable with Windows 10 Pro 64-bit Operating System • At least One week Onsite training after • Installation of software. • Subscription at least for three years. II)AUTO CAD CIVIL 3D SOFTWARE : • Auto CAD-CIVIL 2017 or Latest Education version, • Software should be Perpetual licenses • along with Tutorials ,Videos & Documentation • At least One week Onsite training after • Installation of software. • Subscription at least for three years • With one year extended				
91	Printer(Colour)	Laser Jet printer Latest model – colour Print, Copy and Scan (Multipurpose). • Printing Paper Size- Monochrome Laser PrinterA3/ A4 Size. • Page per minute: min. 25 or higher • Print resolution - 2400 x 1200 or higher • Optimized dpi from 1200 x 1200 input dpi or higher. • Preferably with Wi-Fi support, Hi-Speed USB connectivity. Hi-Speed USB & Ethernet 10/100 Mbps Network connectivity, 28PPM speed, Auto duplexing, 256 MB internal memory • Sheet Capacity at least 250 Sheets (A4) / 200 Sheets (A3), Auto duplexing, Energy star certified. • Warranty: At least for two years with one year extended, • AMC Rates post warranty to be quoted separately	2	Nos		
95	UPS 5-kVA	5 KVA Online UPS: Power capacity: 5.0 Watts / 5.0 kVA. • Output Voltage: 230V, Output Voltage Distortion: Less than 2%, Output Frequency (sync to mains): 50/60Hz +/- 3 Hz, •Load Crest Factor: 3: 1, Double Conversion Online, Sine wave, Automatic and Manual Bypass, Input Voltage 230, frequency 40 - 70 Hz (auto sensing). • Input voltage range 60 - 275V, SMF Lead-Acid battery for 1 hour backup, Recharge time 1.5hours, Battery Life 3-5 years. • Ethernet or USB interface for management, Emergency Power Off System, Surge protection above 380 Joules, • With well-ventilated Battery Rack.	2	Nos		
122	Laser Toner Cartridge.	Laser Toner Cartridge.	6	Nos		