



GOVERNMENT OF THE PUNJAB
TECHNICAL EDUCATION & VOCATIONAL TRAINING AUTHORITY
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No. TEVTA/MIS/150

August 8, 2018

NOTIFICATION

No. TEVTA/MIS/1-198 Technical Specifications for procurement of following IT Equipment are hereby notified.

1. Entry Level Server
2. Work Station / Desktop Computer
3. Laptop
4. Printers
5. Multimedia Projector
6. Scanners
7. Network Equipment

The Purchase procedure will be followed as per Punjab Procurement Regulatory Authority (PPRA) Rules 2014.


(NAEEM ASLAM)
Chief Technology Officer

A copy is forwarded for information to:

- a) All General Managers and Deputy General Managers (TEVTA)
- b) All Zonal Managers and District Managers (TEVTA)
- c) Manager (Procurement), Manager (Admn.) TEVTA Secretariat
- d) All Committee Members
- e) Manager (MIS) TEVTA Secretariat to place on Website and Circulate through email
- f) SA to the Chairperson, PS to the COO, PA to Advisor Projects
- g) PA to General Manager Academics
- h) Master File

Specification of I.T Equipment

| ENTRY LEVEL SERVER | |
|--|--|
| ITEM | DESCRIPTION |
| Processor | Intel Xeon processor (3.3 GHz, 8MB Cache) Equivalent / higher |
| Mother Board | Intel Chipset with min 2 Memory (RAM) slot or higher |
| ECC Memory (RAM) | Min 16 GB (2x8GB) ECC or higher |
| Hard Disk Drive | Min 2x 1TB SATA or higher |
| RAID Controller | Integrated SATA RAID (Levels 0/1/10) and Option to Upgrade to RAID 5 via Software Key. |
| I/O Ports & Expansion Slots | Min 4 PCI/ PCIe Slots and 4 USB 2.0/3.0 slots or higher |
| Optical Drive | DVD Writer (Super Drive) |
| Display Card | As per manufacturer standards or integrated |
| Network Adapter | Minimum 2x integrated Gigabit Ethernet (10/100/1000) or higher |
| Mouse & Key Board | USB Standard Keyboard and V-Track Optical Mouse with Scroll. |
| Chassis | Tower / mini Tower Casing |
| Power Supply | Single Power Supply or manufacturer's standard |
| Display LED | 20" LED Display, 1024 x 768 Resolution supportive or higher |
| Optional (Need Based) | |
| Operating System (Educational Licensed) | Microsoft Windows 2016 Server Std. Edition with minimum 10 CALS or latest |
| Wire Less LAN Card | 300Mbps or higher |
| ECC Memory | Min 8 GB ECC (Single Module) |


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| WORK STATION / DESKTOP COMPUTER | |
|---|---|
| ITEM | DESCRIPTION |
| Processor | Intel 7 th Generation Core i5 processor (3.4 GHz, 6MB Cache) or higher |
| Mother Board | Intel chipset Motherboard with min 2 Memory (RAM) slot or higher |
| Memory (RAM) | Min 4 GB- DDR-IV or higher (single module) |
| Hard Disk Drive | Min 1TB SATA with 7200 RPM or higher. |
| Display /Sound Card | Integrated display and audio card. |
| Network Adapter | Integrated Gigabit Ethernet (10/100/1000 Mbps) |
| Display | 18.5" LED or above, Low Radiation, 1024 x 768 Resolution supportive or better |
| Mouse & Keyboard | USB Standard Keyboards and Optical Mouse with Scroll. |
| Casing | Tower / mini Tower Casing |
| I/O Interfaces and Expansion Slots | Min 4 USB 2.0/3.0 ports and Two PCI/ PCI Express slots |
| Optional (Need Based) | |
| Optical Drive Internal | DVD-RW (Super Drive) or higher |
| Operating System (Educational Licensed) | Microsoft Windows 10 Professional or Latest Version |
| Wireless LAN Card | 300Mbps or higher (if Wireless Networking required) |
| Graphics Card | As per curriculum requirement |


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PRINTERS

| ITEMS | DESCRIPTION |
|---------------------------------|--|
| LaserJet Medium Duty | Minimum Print Speed: 34 PPM A4 size, Resolution 1200X1200 Dpi (1200 Image Quality) or better. Processor: 1024 MHz RISC or higher Memory: 128 MB RAM or higher. Paper Handling: Legal, A4 & letter size paper. Duplex Printing: Automatic Two-sided printing (Duplexer Card). . Paper Tray(s): Two Paper Trays minimum. Low Ink indicator, Print cancel job etc LCD/LED Display of the Print Status, With other Standard Features of the Manufacturer. Drivers: Microsoft windows XP/Vista/2003/07/10/server 8/12 and Red Hat Linux supportive. (with USB 2.0 cable) |
| LaserJet Light Duty | Minimum Print Speed: 20 PPM, Memory: 128 MB RAM or higher, Processor: 512 MHz or higher Resolution: 600 x 600 dpi or better quality. Paper Handling: Legal, A4 & letter size paper. Paper Tray(s): One paper tray minimum. Other standard features like print cancel job etc. Drivers: Microsoft windows XP/Vista/2003/07/10/server 8/12 and Red Hat Linux supportive. (with USB 2.0 cable) |
| Color LaserJet Light Duty | Print Speed: 18 PPM (A4 size color on normal quality mode) or higher. Memory: 128MB RAM or higher. Processor: 512 MHz or higher Resolution: 600x600 dpi or better. Paper Handling: Legal, A4 and letter size paper. Paper Tray(s): one paper tray minimum + one manual paper feeding. Other standard features like low Ink indicator, print cancel button etc. Drivers: Microsoft windows XP/Vista/2003/07/10/server 8/12 and Red Hat Linux supportive. (with USB 2.0 cable) |
| Dot Matrix | Printing Method: impact dot matrix Print Speed: Draft mode 225cps (10cpi) or higher. Input Buffer: 8KB or higher. Number of Pins: 24Pins Formatting: Line spacing 1/6" or better Paper Handling: Cut Sheets, width 3.9" to 10.1", Length 3.9" to 14.3". Continuous paper width 4' to 10", Length 22". Paper Feed Method: Friction, Push tractor, Push & pull tractor and Pull tractor feed. Interface: Bidirectional 8-bit parallel and Serial Interface Drivers: Microsoft windows XP/Vista/2003/07/10/server 8/12 and Red Hat Linux supportive. (with USB 2.0 cable) |



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| LAPTOP | |
|------------------------------|---|
| ITEM | DESCRIPTION |
| Processor | Intel 8 th Generation Core i7 Processor 1.8 GHz or higher |
| Memory | 8 GB- DDR-IV (Single Module) or higher, Support up to 32GB |
| Hard Disk Drive | 1TB (5400RPM) or higher. |
| Super Internal Drive | DVD-RW (Super Drive) or higher |
| Display Card/ Sound Card | Built-in Video Graphics display and sound card. |
| Connectivity | Integrated Gigabit Ethernet (10/100/1000 Mbps), Built-in WIFI and Bluetooth |
| Display | 15" High Definition Display or higher |
| Mouse & Key | Touchpad Mouse and Standard Keyboard |
| Camera & Speaker | Built-in web cam with Mic, Integrated Speaker |
| Accessories | Original Carry-Pack/ Executive Bag (Branded) & Original Power Adapter |
| Optional (Need Based) | |
| Operating System | Microsoft Windows 10 Professional or Latest Version (Licensed) |


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SCANNERS

| ITEMS | DESCRIPTION |
|---|--|
| <p>Light Duty Scanner for A4/ Letter size paper</p> | <p>Flatbed. Scanning Resolution: 600 by 600 or higher. Document Size: A4/Letter. Scanning modes: B/W & Color. Standard features along-with USB cable. Drivers: Microsoft windows XP/Vista/2003/07/10/server 8/12 and Red Hat Linux supportive. (with USB 2.0 cable)</p> |
| <p>Light Duty Scanner for Legal size paper</p> | <p>Automatic Document Feeding and Flatbed. Scanning Speed: 15ppm / 35ipm or higher Scanning Resolution: 600 by 600 or higher. Document Size: Letter, Legal. Scanning modes: B/W & Color. Standard features along-with USB cable. Drivers: Microsoft windows XP/Vista/2003/07/10/server 8/12 and Red Hat Linux supportive. (with USB 2.0 cable)</p> |


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MULTIMEDIA PROJECTOR

| ITEMS | DESCRIPTION |
|---|---|
| Brightness | 3,000 Lumens (Lamp mode High) or better |
| Contrast Ratio | 500:1 / 700:1 / 2,000:1 |
| Native Resolution | XGA (1024x768) or better |
| Aspect Ratio | 4:3 or better |
| Acceptable Video Signals | 720p, 1080i, 76i, 576p |
| Lamp Life (hours) | 3000 hour or higher |
| Zoom Lens | 1.30:1 |
| Projection/ Display Size: | 25" to 300" |
| Optical Lens Shift | Horizontal & Vertical |
| Ceiling Mountable & Remote Control | Yes |
| Ports | S-Video, DVI, HDMI, PC Audio in/out |
| USB Port | PC-free slideshows feature with remote control (to run presentation without Computer) |



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NETWORK EQUIPMENT

| ITEMS | DESCRIPTION |
|---|---|
| ACTIVE | |
| Non- Manageable Switch | Non-Manageable Layer 2 Full Duplex, 10/100/1000 BaseT, TX Fast Ethernet 24 Ports |
| Non- Manageable Switch | Non-Manageable, 10/100/1000 BaseT, TX Fast Ethernet 08 Ports |
| Wireless Access Point / Router (If Wireless Networking Required) | 300Mbps with minimum 4 Ethernet Ports (10/100 Mbps) or higher |
| PASSIVE EQUIPMENT | |
| ITEMS | DESCRIPTION |
| UTP Cable CAT 6E (Pure Copper) | UTP cable, 4 pair, Fast Ethernet supported, Roll/Box = 1000 ft minimum |
| Face Plates | Face Plates with dual shutter, dual fast Ethernet supported UTP I/O |
| Back Box | Standard Back Box |
| Patch Panel | UTP 24-Port Patch Panel with rear cable management |
| Patch Cord | UTP Patch Cord, fast Ethernet supported 1 meters, 3 meters, 9 meters or (length as per requirement) |
| Data Cabinet | Data Cabinet 4 U, perforated top, Floor standing, min 2 exhaust fans and power panel, glass door and Lock |
| Ducts | Duct 16 x 38 (10 Ft Per Length) ISO certified Brand |
| Ducts | Duct 40 x 40 (10 Ft Per Length) ISO certified Brand |
| PVC pipe | PVC Flexible 1 (10 ft Length) |
| | UTP Cable Laying & Termination job (Per Running Foot) |


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