



ਪੰਜਾਬ ਸਰਕਾਰ  
ਪ੍ਰਸ਼ਾਸਨਿਕ ਸੁਧਾਰ ਵਿਭਾਗ

GOVERNMENT OF PUNJAB  
DEPARTMENT OF GOVERNANCE REFORMS

To

1. All Administrative Secretaries
2. All Deputy Commissioners

Letter no: DGRPG/Specifications/E-837120/2025/02/04

Dated: 04.02.2025

**Subject: Technical Specifications for commonly used IT items– 2025.**

1. Please refer to letter no: DGRPG/Technical Sanctions/123853/I/811566/2024 dated 27.03.2024 vide which the specifications of IT items were issued.
2. Now, the technical specifications of the commonly used IT items have been revised and are enclosed as **Annexure – A**. These specifications shall remain in force until reviewed as per requirement.

**Girish Dayalan, IAS**

**Special Secretary to Government  
and Director**

## Specifications of commonly used IT hardware

## 1. All-in-one

SN	Parameter	Entry-Level	Mid-Level	High-End *
1.	<b>Processor</b>	12th Generation Intel Core i5 12400 / 5000 series AMD Ryzen 5 5600G  OR  12th Generation Intel Core i7 12700 / 5000 series AMD Ryzen 7 5700G	13th Generation Intel Core i5 / AMD Ryzen 5 7000 series  OR  13th Generation Intel Core i7 AMD Ryzen 7 7000 series	14th Generation Intel Core i5 / AMD Ryzen 5 8000 series  OR  14th Generation Intel Core i7 / AMD Ryzen 7 8000 series
2.	<b>Webcam</b>	Integrated HD webcam	Integrated HD webcam	Integrated 5MP FHD webcam
3.	<b>RAM</b>	16 GB DDR 4 (3200 MHz) with 32 GB expandability	16 GB DDR 5 (4800 MHz) with 32 GB expandability	16 GB or higher ( <i>as per requirement</i> ) DDR 5 (4800 MHz) with 64 GB expandability
4.	<b>Chipset</b>	Compatible chipset	Intel Q series / AMD Pro series	Intel Q series / AMD Pro series
5.	<b>Storage Disk</b>	SSD NVMe 512 GB / 1 TB ( <i>as per requirement</i> )		
6.	<b>Graphics</b>	Integrated Graphics Card		
7.	<b>Operating System</b>	Pre-installed original Windows 11 Professional (Factory Loaded by OEM)		

		<i>Note: For education purposes, use “Windows 11 STF [Shape the Future]”</i>
8.	<b>Display</b>	23.8" or higher ( <i>as per requirement</i> ), IPS / VA / WVA, FHD, Antiglare
9.	<b>Speakers &amp; MIC</b>	Integrated dual Speakers with MIC
10.	<b>Connectivity</b>	10/100/1000 Gigabit Ethernet Port
11.	<b>WiFi and Bluetooth</b>	Integrated WiFi 6 and Bluetooth 5.2
12.	<b>Ports</b>	4 x USB 3.2, 1 x Type-C and 1 x HDMI out
13.	<b>Keyboard</b>	Wired / wireless - 100 keys or higher
14.	<b>Mouse</b>	Wired / wireless two button optical mouse with mouse pad
15.	<b>Power Supply</b>	Compatible power supply with 85% efficiency or better
16.	<b>Warranty</b>	3 OR 5 years onsite OEM warranty ( <i>as per requirement</i> ). Warranty should be online verifiable.
17.	<b>Certifications</b>	Energy Star or EPEAT registered in India, BIS Certification and OS Certification – Windows
18.	<b>Compliance</b>	RoHS
19.	<b>Accessories</b>	All necessary connectors, power cables and power adapters as per Indian Standards
20.	<b>General</b>	Display, keyboard and mouse should be of the same OEM

**Note 1: High-end option is to be used only for senior officers or where there is requirement of high end computing**

**Note 2: Procuring entity may update the specification wherever “as per requirement” has been mentioned**

## 2. Desktop

SN	Parameter	Entry-Level	Mid-Level	High-End *
1.	<b>Processor</b>	12th Generation Intel Core i5 12400 / 5000 series AMD Ryzen 5 5600G  OR  12th Generation Intel Core i7 12700 / 5000 series AMD Ryzen 7 5700G	13th Generation Intel Core i5 / AMD Ryzen 5 7000 series  OR  13th Generation Intel Core i7 AMD Ryzen 7 7000 series	14th Generation Intel Core i5 / AMD Ryzen 5 8000 series  OR  14th Generation Intel Core i7 / AMD Ryzen 7 8000 series
2.	<b>RAM</b>	16 GB DDR 4 (3200 MHz) with 32 GB expandability	16 GB DDR 5 (4800 MHz) with 32 GB expandability	16 GB or higher ( <i>as per requirement</i> ) DDR 5 (4800 MHz) with 64 GB expandability
3.	<b>Chipset</b>	Compatible chipset	Intel Q series / AMD Pro series	Intel Q series / AMD Pro series
4.	<b>Display</b>	19" or higher ( <i>as per requirement</i> ), IPS / VA / WVA, FHD, Antiglare	21.5" or higher ( <i>as per requirement</i> ), IPS / VA / WVA, FHD, Antiglare	21.5" or higher ( <i>as per requirement</i> ), IPS / VA / WVA, FHD, Antiglare
5.	<b>Storage Disk</b>	SSD NVMe 512 GB / 1 TB ( <i>as per requirement</i> )		
6.	<b>Graphics</b>	Integrated Graphics Card		
7.	<b>Operating System</b>	Pre-installed original Windows 11 Professional (Factory Loaded by OEM)  <i>Note: For education purposes, use "Windows 11 STF [Shape the Future]"</i>		

8.	<b>Connectivity</b>	10/100/1000 Gigabit Ethernet Port
9.	<b>Ports</b>	4 x USB 3.2, 1 x Type-C and 1 x HDMI out
10.	<b>Keyboard</b>	Wired / wireless - 100 keys or higher
11.	<b>Mouse</b>	Wired / wireless two button optical mouse with mouse pad
12.	<b>Power Supply</b>	Compatible power supply with 85% efficiency or better
13.	<b>Warranty</b>	3 OR 5 years onsite OEM warranty ( <i>as per requirement</i> ). Warranty should be online verifiable.
14.	<b>Certifications</b>	Energy Star or EPEAT registered in India, BIS Certification, OS Certification – Windows and TCO 9.0 certification for monitor
15.	<b>Compliance</b>	RoHS
16.	<b>Accessories</b>	All necessary connectors, power cables and power adapters as per Indian Standards
17.	<b>General</b>	Display, keyboard and mouse should be of the same OEM

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**Note 2: Procuring entity may update the specification wherever “as per requirement” has been mentioned**

### 3. Laptop

SN	Parameter	Entry-Level	Mid-Level	High-End *
1.	<b>Processor</b>	12th Generation Intel Core i5 1245U / 5000 series AMD Ryzen 5 5625U  OR  12th Generation Intel Core i7 1265U / 5000 series AMD Ryzen 7 5825U	13th Generation Intel Core i5 / AMD Ryzen 5 7000 series  OR  13th Generation Intel Core i7 / AMD Ryzen 7 7000 series	Intel Core Ultra 5 / AMD Ryzen 5 8000 series  OR  Intel Core Ultra 7 / AMD Ryzen 7 8000 series
2.	<b>Power Adapter</b>	Standard OEM power adapter	65W OEM power adapter	65W OEM power adapter
3.	<b>RAM</b>	16 GB DDR 4 (3200 MHz) with 32 GB expandability	16 GB DDR 5 (4800 MHz) with 32 GB expandability	16 GB or higher ( <i>as per requirement</i> ) DDR 5 (4800 MHz) with 64 GB expandability
4.	<b>Webcam</b>	Integrated HD webcam		
5.	<b>Storage Disk</b>	SSD NVMe 512 GB / 1 TB ( <i>as per requirement</i> )		
6.	<b>Graphics</b>	Integrated Graphics Card		
7.	<b>Operating System</b>	Pre-installed original Windows 11 Professional (Factory Loaded by OEM)		
8.	<b>Display</b>	14" ( <i>or as per requirement</i> ), IPS / VA / WVA, FHD, Antiglare		
9.	<b>Speakers &amp; MIC</b>	Integrated dual Speakers with MIC		

10.	<b>Connectivity</b>	10/100/1000 Gigabit Ethernet Port
11.	<b>WiFi and Bluetooth</b>	Integrated WiFi 6 and Bluetooth 5.2
12.	<b>Ports</b>	2 x USB 3.2, 1 x Type-C and 1 x HDMI out
13.	<b>Keyboard</b>	Backlit and Spill Resistant keyboard
14.	<b>Touchpad</b>	Touchpad with multi-touch gestures enabled
15.	<b>Battery</b>	Li-ion, 3 Cell 45 Whr with a minimum backup of 8 Hrs
16.	<b>Chassis</b>	Metallic
17.	<b>Weight</b>	Not more than 1.5 kg
18.	<b>Warranty</b>	3 OR 5 years onsite OEM warranty (including battery and adapter). Warranty should be online verifiable.
19.	<b>Certifications</b>	Energy Star or EPEAT registered in India, BIS Certification and OS Certification – Windows
20.	<b>Compliance</b>	RoHS
21.	<b>Accessories</b>	OEM carry bag, power cables and power adapters as per Indian Standards

**Note 1: High-end option is to be used only for senior officers or where there is requirement of high end computing**

**Note 2: Procuring entity may update the specification wherever “as per requirement” has been mentioned**

#### 4. UPS

SN	Parameter	Value
1.	<b>UPS Capacity</b>	1 KVA
2.	<b>Mode</b>	Line Interactive
3.	<b>Inverter efficiency</b>	60% or better
4.	<b>Enclosure</b>	ABS or better
5.	<b>Input</b>	Single phase AC (160 - 280 V)
6.	<b>Rated Output</b>	230V AC 50 Hz
7.	<b>Backup</b>	Minimum 30 minutes on full load
8.	<b>Protection</b>	Low battery
9.	<b>Indicator</b>	Mains On / On Battery / Low Battery / Fault / Overload
10.	<b>Alarm</b>	On battery, Fault, overload, low battery
11.	<b>Plug and cable</b>	Input cable of 3 pin Indian plug and output should have minimum 3 nos. of 5 pin Indian socket
12.	<b>Certification</b>	IS16242-Part 1 CRS
13.	<b>Compliance</b>	RoHS (Only UPS)
14.	<b>Test report</b>	Certificate from Govt. / NABL accredited lab to prove the conformity of product as per specification
15.	<b>Warranty</b>	1 year onsite OEM warranty for battery and 2 years onsite OEM warranty for UPS



**5. Printer (Single function, monochrome)**

<b>SN</b>	<b>Parameter</b>	<b>Entry-Level</b>	<b>Mid-Level</b>	<b>High-End</b>
1.	<b>Functions</b>	Print		
2.	<b>Print Technology</b>	Laser / Ink-tank		
3.	<b>Paper size</b>	A4		
4.	<b>Print Output</b>	Mono		
5.	<b>Cartridge Technology</b>	Composite / Ink Tank		
6.	<b>Duplex</b>	Manual	Auto	Auto
7.	<b>Connectivity</b>	USB	USB, Wi-fi, ethernet	USB, Wi-fi, ethernet
8.	<b>Duty cycle (monthly)</b>	5,000 pages	10,000 pages	10,000 pages
9.	<b>Memory</b>	16 MB	128 MB	256 MB
10.	<b>Minimum print speed as per ISO/IEC 24734 in (A4) Size</b>	18 PPM	25 PPM	30 PPM

11.	<b>Input paper tray capacity</b>	100 pages	150 pages	200 pages
12.	<b>Certification</b>	BIS		
13.	<b>Cable/Accessories</b>	All the required cables and accessories		
14.	<b>Compliance</b>	RoHS		
15.	<b>Warranty</b>	1 year onsite OEM warranty		

**6. Printer (Single function, Colour)**

<b>SN</b>	<b>Parameter</b>	<b>Value</b>
1.	<b>Functions</b>	Print
2.	<b>Print Technology</b>	Laser / Ink-tank
3.	<b>Paper size</b>	A4
4.	<b>Print Output</b>	Colour
5.	<b>Cartridge Technology</b>	Composite / Ink Tank
6.	<b>Duplex</b>	Auto
7.	<b>Connectivity</b>	USB, Wi-fi, ethernet

8.	<b>Duty cycle (monthly)</b>	8,000 pages
9.	<b>Memory</b>	256 MB
10.	<b>Minimum print speed as per ISO/IEC 24734 in (A4) Size</b>	20 PPM
11.	<b>Input paper tray capacity</b>	150 pages
12.	<b>Certification</b>	BIS
13.	<b>Cable/Accessories</b>	All the required cables and accessories
14.	<b>Compliance</b>	RoHS
15.	<b>Warranty</b>	1 year onsite OEM warranty

#### 7. Multifunction Laser Printer

SN	Parameter	Entry-Level	Mid-Level	High-End
1.	<b>Functions</b>	Print, scan, copy		
2.	<b>Print Technology</b>	Laser / Ink-tank		
3.	<b>Paper size</b>	A4		
4.	<b>Print Output</b>	Mono		
5.	<b>Cartridge</b>	Composite / Ink Tank		

	Technology			
6.	<b>Duplex</b>	Manual	Auto	Auto
7.	<b>Connectivity</b>	USB, Wi-fi, ethernet		
8.	<b>Duty cycle (monthly)</b>	5,000 pages	10,000 pages	20,000 pages
9.	<b>Memory</b>	64 MB	128 MB	256 MB
10.	<b>Minimum print speed as per ISO/IEC 24734 in (A4) Size</b>	20 PPM	30 PPM	35 PPM
11.	<b>Input paper tray capacity</b>	100 pages	150 pages	200 pages
12.	<b>Scan type</b>	Flatbed	Flatbed with ADF	Flatbed with ADF
13.	<b>Certification</b>	BIS		
14.	<b>Cable/Accessories</b>	All the required cables and accessories		
15.	<b>Compliance</b>	RoHS		
16.	<b>Warranty</b>	1 year onsite OEM warranty		

## 8. Scanner

### a. Flatbed Scanner with ADF

SN	Parameter	Value
1.	Type	Flatbed with ADF
2.	Daily Duty Cycle	1,000 pages
3.	Scan Speed	25 ppm
4.	Paper Size Support	A4, legal
5.	Duplex paper support	A4
6.	Scan format	Pdf, jpg / jpeg
7.	Certification	BIS
8.	Compliance	ROHS
9.	ADF feeder capacity	50 sheets
10.	Interface	USB
11.	Accessories	All required cables and accessories
12.	Warranty	3 years onsite OEM warranty

**b. Sheet Feed Scanner**

<b>SN</b>	<b>Parameter</b>	<b>Value</b>
1.	<b>Type</b>	Sheet feed scanner
2.	<b>Scanning</b>	Single pass duplex
3.	<b>Daily Duty Cycle</b>	2,500 pages
4.	<b>Scan Speed</b>	25 ppm
5.	<b>Paper Size Support</b>	A4, legal
6.	<b>Scan format</b>	Pdf, jpg / jpeg
7.	<b>Accessories</b>	All required cables and accessories
8.	<b>Certification</b>	BIS
9.	<b>Compliance</b>	ROHS
10.	<b>ADF capacity</b>	50 sheets
11.	<b>Interface</b>	USB
12.	<b>Warranty</b>	3 years onsite OEM warranty

**9. Web Cam**

<b>SN</b>	<b>Parameter</b>	<b>Value</b>
1.	<b>Lens (Mega Pixel)</b>	3
2.	<b>Max. Video Resolution</b>	1920 * 1080
3.	<b>Warranty</b>	1 year OEM warranty

**10. Office Software**

<b>SN</b>	<b>Parameter</b>	<b>Value</b>
1.	<b>Office Package</b>	MS office / Open Office as per requirement of the organization

**11. Video Conferencing System (VC Setup) - for conference rooms**

<b>SN</b>	<b>Parameter</b>	<b>Value</b>
1.	<b>VC system Resolution</b>	1080, 30fps
2.	<b>Minimum Bandwidth</b>	2048
3.	<b>Type of Camera</b>	PTZ
4.	<b>Camera Control</b>	Automatic
5.	<b>Optical Zoom</b>	12 X
6.	<b>Field of view at Zoom (Degree)</b>	70
7.	<b>Pan range Min to Max (+/- Degree)</b>	+ / - 170 degree
8.	<b>Tilt Range (Degree)</b>	+ / - 20 degree
9.	<b>Video Coding support protocol</b>	H.264 AVC, H.265
10.	<b>System Support sharing of video &amp; graphics content during video call</b>	1080, 30 fps
11.	<b>Microphone Supported</b>	3
12.	<b>Microphone Supplied</b>	2
13.	<b>Number of camera support from same OEM</b>	1 or more



14.	<b>Number of Ethernet connection points for System support for RJ-45, 10/100/1000 Mbps Base-T Ethernet connection</b>	1
15.	<b>System to be IPv6 ready from day one</b>	Yes
16.	<b>Protocol &amp; the offered system in inter operable H-323 AVC/SVC based VC equipment in a P to P call on VC end points</b>	Yes
17.	<b>Input HDMI</b>	3
18.	<b>Output HDMI</b>	2
19.	<b>Type of Microphone</b>	Omni Directional
20.	<b>UL/CE certification</b>	Yes
21.	<b>Warranty</b>	1 year onsite OEM warranty
	<p>Note: - The VC system should have inbuilt USB Pass-through functionality to use the VC system as an external camera and microphone when connected to a Laptop/PC to join any cloud-based VC platform like Webex, MS Teams, Blue Jeans, Google Meet, NIC Bharat VC, NIC Vidyo, etc. It should be possible to Mute/Unmute all the microphones and control camera functionality from the same remote control/touch control panel during USB pass-through mode. The system should be supplied with a 9mtrs single USB 3.0 cable from the same OEM for USB Pass-thru mode for seamless functionality).</p>	