DoIT.C
Department of Information Technology & Communication, Rajasthan

GOVERNMENT OF RAJASTHAN
Department of Information Technology & Communication

No. F5.501(1429)/DoITC HQ/2024-11191-Part File(3)/03854/2026 Date: 23/10/2026

NOTIFICATION

Sub.: Regarding Generic Technical Specifications of ICT items.

Ref.: Order No. P.1 (8) Fin./ GF&AR/ 98 PT.-I dated 09-02-2024 and circular No. P.1 (8) Fin./ GF&AR/ 98 PT.-I dated 12-02-2024 issued by Finance Dept., Govt. of Rajasthan.

In reference to the subject and pursuance of referred Order/ Circular cited above, all concerned are hereby informed that category-wise Generic Tech. Specs. of ICT items are attached at Annx.-"A" for consideration as Generic Tech. Specs. for Department's IT equipment procurement.

It is also advised:

1. to consider latest Notification published on Dept. of IT&C's website.
2. to strictly comply with the Tech. Specs. uploaded on websites of DoIT&C & FD and the RTPP Rules with intention to maintain price competitiveness, avoiding monopoly and encouraging competition.
3. that in continuation to the Point No. 2, on compliance, Department(s) are ADVISED, to compare and evaluate Desktops Computers/ Laptops/ All-in-One/ Desktop Computers and Workstations based, upon (Processor Manufacturers 'AMD' & "Intel' on Parameters like, Price, Performance, overall, TCO (Total Cost of Ownership.)" upon publishing an RFP/ Tender.
4. that addition or alteration in any of the specifications and certification mentioned in the Notification will not be considered valid. Departments are strictly advised to publish two different technology items separately without using OR and Slash ('/') in between items.
5. that the following technical criteria in procurement processmay be included to ensure quality product to be supplied:
    i. OEM must have OEM owned manufacturing facility in India at-least for last three years (Applicable for category T.V. and IFPD only).
    ii. Service Centre facility should be available in Rajasthan at-least at all divisional headquarters with Service Level Validity for at-least of one year.
6. that HDD/ SSD should be kept by Department as no replacement of the same should be made under AMC/ Warranty.
7. that GST is excluded for categories 1 to 9 and included for category 10 onwards.
8. that rates are to be used for estimate purposes in the public procurement and fair and transparent procurement process as prescribed by the RTPP ACT/rules should be followed for actual price discovery of the IT equipments.

This bears approval from competent level.

Encl.: As above.

(**Tapan Kumar**)
Technical Director

Copy for information and necessary action to:
1. PS to Principal Secretary, Finance Dept., Rajasthan, Jaipur
2. PS to Secretary, Dept. of IT&C, Rajasthan, Jaipur
3. PS to Secretary, Finance (Exp.) Dept., Rajasthan, Jaipur
4. Sr. PS to Commissioner & Special Secretary, Dept. of IT&C, Rajasthan, Jaipur
5. Joint Secretary, Finance (GF & AR) Dept., Rajasthan, Jaipur
6. Group Head-Website, Dept. of IT&C, Jaipur to upload this Notification DoIT&C's website

(**O. P. Jatawat**)
System Analyst (Jt. Director)

Annexure- "A"

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Category 1. Desktop Computer

I. Entry Level configuration

A. Intel i3 with 14th Generation (estimated cost Rs. 75,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel i3, 4 Core or higher, with minimum 3.0 GHz or higher (Base Frequency), 12 MB Cache or higher with 14th or higher Generation and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400 MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 21 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Note: NVIDIA 4GB Graphics Card having estimated cost of Rs. 20,000 may be added separately by the Departments as per their requirement in Desktops.

B. Ryzen 3 with 8000 Series (estimated cost Rs. 75,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Ryzen 3, 4 Core or higher, with minimum 3.4 GHz or higher (Base Frequency), 12 MB Cache or higher with 8000 Series or higher and to be Certified by OEM
Chipset	AMD
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400 MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 21 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Note: NVIDIA 4GB Graphics Card having estimated cost of Rs. 20,000 may be added separately by the Departments as per their requirement in Desktops.

C. Intel i3 with 13th Generation (estimated cost Rs. 60,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel i3, 4 Core or higher, with minimum 3.0 GHz or higher (Base Frequency), 10 MB Cache or higher with 13th or higher Generation and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	1. Pre-Installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR4 3200MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	256 GB/ 512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 256 GB or 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 19.5 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 4.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

D. Ryzen 3 with 5000 Series (estimated cost Rs. 60,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Ryzen 3, 4 Core or higher, with minimum 4 GHz or higher (Base Frequency), 10 MB Cache or higher with 5000 Series or higher and to be Certified by OEM
Chipset	AMD
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR4 3200MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	256 GB/ 512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 256 GB or 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 19.5 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 4.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

II. Medium level configuration

A. Intel i5 with 14th Generation (estimated cost Rs. 85,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel i5, 10 Core or higher, with minimum 2.5 GHz or higher (Base Frequency), 20 MB Cache or higher with 14th or higher Generation and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400 MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 21 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Note: NVIDIA 4GB Graphics Card having estimated cost of Rs. 20,000 may be added separately by the Departments as per their requirement in Desktops.

B. Ryzen 5 with 8000 Series (estimated cost Rs. 85,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Ryzen 5, 6 Core or higher, with minimum 2.7 GHz or higher (Base Frequency), 22 MB Cache or higher with 8000 Series or higher and to be Certified by OEM
Chipset	AMD
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400 MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 21 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Note: NVIDIA 4GB Graphics Card having estimated cost of Rs. 20,000 may be added separately by the Departments as per their requirement in Desktops.

C. Intel i5 with 13th Generation (estimated cost Rs. 70,000 (excluding GST) considering pre-installed GenuineWindows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel i5, 6 Core or higher, with minimum 2.5 GHz or higher (Base Frequency), 18 MB Cache or higher with 13th or higher Generation and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR4 3200MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 19.5 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 4.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	2.0 Trusted Platform Module (TPM) Hardware/Firmware
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

D. Ryzen 5 with 5000 Series (estimated cost Rs. 70,000 considering (excluding GST) pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Ryzen 5, 6 Core or higher, with minimum 3.9 GHz or higher (Base Frequency), 18 MB Cache or higher with 5000 Series or higher and to be Certified by OEM
Chipset	AMD
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR4 3200MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 19.5 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 4.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

III. Mid-High level configuration

A. Intel i7 with 14th Generation (estimated cost Rs. 1,00,000 (excluding GST) considering pre-installed GenuineWindows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel i7, 20 Core or higher, with minimum 2.1 GHz or higher (Base Frequency), 33 MB Cache or higher with 14th or higher Generation and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400 MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 21 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Note: NVIDIA 4GB Graphics Card having estimated cost of Rs. 20,000 may be added separately by the Departments as per their requirement in Desktops.

B. Ryzen 7 with 8000 Series (estimated cost Rs. 1,00,000 (excluding GST) considering pre-installed GenuineWindows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Ryzen 7, 8 Core or higher, with minimum 2.10 GHz or higher (Base Frequency), 24 MB Cache or higher with 8000 Series or higher and to be Certified by OEM
Chipset	AMD
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400 MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 21 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Note: NVIDIA 4GB Graphics Card having estimated cost of Rs. 20,000 may be added separately by the Departments as per their requirement in Desktops.

C. Intel i7 with 13th Generation (estimated cost Rs. 85,000 (excluding GST) considering pre-installed GenuineWindows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel i7, 12 Core or higher, with minimum 2.1 GHz or higher (Base Frequency), 12 MB Cache or higher with 13th or higher Generation and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR4 3200MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 19.5 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 4.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

D. Ryzen 7 with 5000 Series (estimated cost Rs. 85,000 (excluding GST) considering pre-installed GenuineWindows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Ryzen7, 8 Core or higher, with minimum 3.8 GHz or higher (Base Frequency), 20 MB Cache or higher with 5000 Series or higher and to be Certified by OEM
Chipset	AMD
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR4 3200MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 19.5 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 4.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

IV. High level configuration

A. Intel Core Ultra 5 processor with NPU (estimated cost Rs. 1,00,000 (Excluding GST) considering pre-installed Genuine Windows 11 Professional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel Core Ultra 5 processor or higher Generation with NPU enabled processor, with 10 Core or higher, with 2.7 GHz or higher (Base Frequency), 20 MB Cache or higher and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	3. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 4. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400 MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 21 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Note: NVIDIA 4GB Graphics Card having estimated cost of Rs. 20,000 may be added separately by the Departments as per their requirement in Desktops.

B. Ryzen 5 8000 Series with NPU (estimated cost Rs. 1,00,000 (Excluding GST) considering pre-installed Genuine Windows 11 Professional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Ryzen 5 8000 or higher series with inbuilt NPU, 6 Core or higher, with minimum 3.5 GHz or higher (Base Frequency), 22 MB Cache or higher and to be Certified by OEM
Chipset	AMD
Operating System	3. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 4. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400 MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 21 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Note: NVIDIA 4GB Graphics Card having estimated cost of Rs. 20,000 may be added separately by the Departments as per their requirement in Desktops.

V. Premium level configuration

A. Intel Core Ultra 7 processor with NPU (estimated cost Rs. 1,20,000 (Excluding GST) considering pre-installed GenuineWindows 11 Professional, 32 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel Core Ultra 7 processor or higher Generation with NPU enabled processor, with 20 Core or higher, with minimum 2.4 GHz or higher (Base Frequency), 30 MB Cache and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	3. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 4. Recovery partition (applicable for Windows).
Memory (RAM)	16 GB/ 32 GB DDR5 4400 MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 16 GB or 32 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 21 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Note: NVIDIA 4GB Graphics Card having estimated cost of Rs. 20,000 may be added separately by the Departments as per their requirement in Desktops.

B. Ryzen 7 8000 Series with NPU (estimated cost Rs. 1,20,000 (Excluding GST) considering pre-installed GenuineWindows 11 Professional, 32 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Ryzen 7 8000 or higher series with inbuilt NPU, 8 Core or higher, with minimum 2.40 GHz or higher (Base Frequency), 24 MB Cache or higher and to be Certified by OEM
Chipset	AMD
Operating System	3. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 4. Recovery partition (applicable for Windows).
Memory (RAM)	16 GB/ 32 GB DDR5 4400 MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 16 GB or 32 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Graphics	Integrated HD Graphic card or higher
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Audio jack for headphone & microphone
Display	Minimum 21 inch or higher, Resolution 1600x900 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS (for Monitor only)
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as Desktop) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Form Factor	Small/ Slim Form Factor or Mini/ Micro Tower OR Volume between 7-20 litre
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Expansion slots	Minimum two PCIe slots
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Note: NVIDIA 4GB Graphics Card having estimated cost of Rs. 20,000 may be added separately by the Departments as per their requirement in Desktops.

Category 2. All in one Desktop computer

I. Entry level configuration

A. Intel i3 with 14th Generation (estimated cost Rs. 75,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel i3, 4 Core or higher, with minimum 3.0 GHz or higher (Base Frequency), 12 MB Cache or higher with 14th or higher Generation and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as AIO)
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. Ryzen 3 with 8000 Series (estimated cost Rs. 75,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	4 Core or higher, with minimum 3.4 GHz or higher (Base Frequency), 12 MB Cache or higher with 8000 Series or higher and to be Certified by OEM
Chipset	AMD
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as AIO)
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. Intel i3 with 13th Generation (estimated cost Rs. 65,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel i3, 4 Core or higher, with minimum 2.7 GHz or higher (Base Frequency), 10 MB Cache or higher with 13th or higher Generation and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR4 3200MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	256 GB/ 512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 256 GB or 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as AIO)
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 4.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

D. Ryzen 3 with 5000 Series (estimated cost Rs. 65,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	4 Core or higher, with minimum 2.7 GHz or higher (Base Frequency), 10 MB Cache or higher with 5000 Series or higher and to be Certified by OEM
Chipset	AMD
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR4 3200MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	256 GB/ 512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 256 GB or 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as AIO)
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 4.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

II. Medium level configuration

A. Intel i5 with 14th Generation (estimated cost Rs. 85,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel i5, 10 Core or higher, with minimum 2.5 GHz or higher (Base Frequency), 20 MB Cache or higher with 14th or higher Generation and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as AIO)
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. Ryzen 5 with 8000 Series (estimated cost Rs. 85,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	6 Core or higher, with minimum 2.7 GHz or higher (Base Frequency), 22 MB Cache or higher with 8000 Series or higher and to be Certified by OEM
Chipset	AMD
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as AIO)
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. Intel i5 with 13th Generation (estimated cost Rs.75,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel i5, 6 Core or higher, with minimum 2.5 GHz or higher (Base Frequency), 18 MB Cache or higher with 13th or higher Generation and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR4 3200MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as AIO)
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 4.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

D. Ryzen 5 with 5000 Series (estimated cost Rs.75,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	6 Core or higher, with minimum 2.5 GHz or higher (Base Frequency), 18 MB Cache or higher with 5000 Series or higher and to be Certified by OEM

Chipset	AMD
Operating System	1. Pre-installed Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. *as per requirement*) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR4 3200MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as AIO)
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 4.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

III. Mid-High level configuration

A. Intel i7 with 14th Generation (estimated cost Rs.1,00,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	**Generic Technical Specification**
Processor	Intel i7, 20 Core or higher, with minimum 2.1 GHz or higher (Base Frequency), 33 MB Cache or higher with 14th or higher Generation and to be Certified by OEM
Chipset	Compatible Chipset

Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as AIO)
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. Ryzen 7 with 8000 Series (estimated cost Rs.1,00,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	**Generic Technical Specification**
Processor	8 Core or higher, with minimum 2.1 GHz or higher (Base Frequency), 24 MB Cache or higher with 8000 Series or higher and to be Certified by OEM
Chipset	AMD
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement)

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	2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as AIO)
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. Intel i7 with 13th Generation (estimated cost Rs.90,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Intel i7, 8 Core or higher, with minimum 2.1 GHz or higher (Base Frequency), 20 MB Cache or higher with 13th or higher Generation and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR4 3200MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)

Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as AIO)
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 4.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

D. Ryzen 7 with 5000 Series (estimated cost Rs.90,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 1 TB Storage)

Parameter	**Generic Technical Specification**
Processor	8 Core or higher, with minimum 2.1 GHz or higher (Base Frequency), 20 MB Cache or higher with 5000 Series or higher and to be Certified by OEM
Chipset	AMD
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR4 3200MHz or higher with 32/ 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display

Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as AIO)
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 4.0 or higher
Accessories	All necessary cables
Security	2.0 Trusted Platform Module (TPM) (Hardware/Firmware)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

IV. High level configuration

A. Intel Core Ultra 5 processor with NPU (estimated cost Rs. 1,25,000 Excluding GST) considering pre-installed Genuine Windows 11 Professional, 16 GB RAM and 1 TB Storage)

Parameter	**Generic Technical Specification**
Processor	Intel Core Ultra 5 processor or higher Generation with NPU enabled processor, 10 Core or higher, with minimum 2.7 GHz or higher (Base Frequency), 20 MB Cache or higher and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	3. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 4. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.

Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as AIO) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac WI-FI and Bluetooth 5.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. Ryzen 5 8000 Series with NPU(estimated cost Rs. 1,25,000 (Excluding GST) considering pre-installed Genuine Windows 11 Professional, 16 GB RAM and 1 TB Storage)

Parameter	**Generic Technical Specification**
Processor	Ryzen 5 8000 or higher series with inbuilt NPU, with 6 Core or higher, with minimum 3.50 GHz or higher (Base Frequency), 22 MB Cache or higher and to be Certified by OEM
Chipset	AMD
Operating System	3. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 4. Recovery partition (applicable for Windows).
Memory (RAM)	8 GB/ 16 GB DDR5 4400MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as AIO) and Mouse Pad

Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

V. Premium level configuration

A. Intel Core Ultra 7 processor with NPU (estimated cost Rs.1,50,000 (Excluding GST) considering pre-installed Genuine Windows 11 Professional, 32 GB RAM and 1 TB Storage)

Parameter	**Generic Technical Specification**
Processor	Intel Core Ultra 7 processor or higher Generation with NPU enabled processor, 20 Core or higher, with minimum 2.4 GHz or higher (Base Frequency), 30 MB Cache or higher and to be Certified by OEM
Chipset	Compatible Chipset
Operating System	3. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 4. Recovery partition (applicable for Windows).
Memory (RAM)	16 GB/ 32 GB DDR5 4400MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 16 GB or 32 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as AIO) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)

Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. Ryzen 7 8000 Series with NPU (estimated cost Rs.1,50,000 (Excluding GST) considering pre-installed Genuine Windows 11 Professional, 32 GB RAM and 1 TB Storage)

Parameter	Generic Technical Specification
Processor	Ryzen 7 8000 or higher series with inbuilt NPU, with 8 Core or higher, with minimum 2.4 GHz or higher (Base Frequency), 24 MB Cache or higher and to be Certified by OEM
Chipset	AMD
Operating System	3. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 4. Recovery partition (applicable for Windows).
Memory (RAM)	16 GB/ 32 GB DDR5 4400MHz or higher with 64 GB Expandability (*As per requirement of Dept. for selection of 16 GB or 32 GB*)
Storage	512 GB/ 1 TB SSD (*As per requirement of Dept. for selection of 512 GB or 1 TB*)
Audio	Integrated audio controller with internal Speaker
Ports	Minimum 5 USB ports with at least 2 USB 3.0 or higher ports, HDMI, Display port, Type-C Port, Audio jack for headphone & microphone
Camera	Integrated webcam 2 MP or higher
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Keyboard & Mouse	USB Keyboard & USB two button optical Mouse (Same make as AIO) and Mouse Pad
Network Interface	Integrated 10/100/1000 Mbps Ethernet, Integrated 802.11ac Wi-Fi and Bluetooth 5.0 or higher
Accessories	All necessary cables
Security	Hardware based 2.0 Trusted Platform Module (TPM)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website.

	For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 3. Laptop computer –

I. Entry level configuration

A. Intel i3/ Intel Core 3 (estimated cost Rs.75,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 512 GB Hard Drive)

Parameter	Generic Technical Specification
Processor	Intel i3/ Intel Core 3, Minimum 4 core or higher, 10 MB Cache or higher with 13th or higher Generation and to be Certified by OEM
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Display	14" HD (1366 × 768 HD display)/ Full HD Display (1920 × 1080 FHD display)
Memory (RAM)	8 GB/ 16 GB DDR4 or higher with 32/ 64 GB Expandability (*As per requirement of Dept. for selection of 8 GB or 16 GB*)
Hard Drive	256 GB/ 512 GB (*As per requirement of Dept. for selection of 256 GB or 512 GB*)
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Min 2 USB 3.0 Type A or higher, USB 3.0 Type C or higher, 1 Head phone/ Microphone combo/ separate, HDMI 1.4 port or higher
Network card	Integrated/ External (same make as Laptop) 10/100/1000 Mbps Ethernet
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n or higher
Web Cam	Integrated HD Web Camera (Front facing)
Battery	Minimum 40Whr
Power Adapter	Standard power adapter
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Accessories	Carry Bag
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. Ryzen 3 (estimated cost Rs.75,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional, 16 GB RAM and 512 GB Hard Drive)

Parameter	Generic Technical Specification
Processor	Minimum 4 core or higher, 10 MB Cache or higher 7330 Series or higher and minimum 2.30 GHz or higher (Base Frequency) to be Certified by OEM
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Display	14" HD (1366 x 768 HD display)/ Full HD Display (1920 x 1080 FHD display)
Memory (RAM)	8 GB/ 16 GB DDR4 or higher with 32/ 64 GB Expandability (As per requirement of Dept. for selection of 8 GB or 16 GB)
Hard Drive	256 GB/ 512 GB (*As per requirement of Dept. for selection of 256 GB or 512 GB*)
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Min 2 USB 3.0 Type A or higher, USB 3.0 Type C or higher, 1 Head phone/ Microphone combo/ separate, HDMI 1.4 port or higher
Network card	Integrated/ External (same make as Laptop) 10/100/1000 Mbps Ethernet
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n or higher
Web Cam	Integrated HD Web Camera (Front facing)
Battery	Minimum 40Whr
Power Adapter	Standard power adapter
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Accessories	Carry Bag
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

II. Medium level configuration

A. Intel i5/ Intel Core 5 (estimated cost Rs.90,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional)

Parameter	Generic Technical Specification
Processor	Intel i5/ Intel Core 5, Minimum 4 core or higher, 12 MB Cache or higher 13th or higher Generation and to be Certified by OEM
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Display	14" or higher diagonal Full HD Display
Memory (RAM)	16 GB DDR4 or higher expandable up to 32 GB
Hard Drive	512 GB SSD or higher
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Minimum 2 USB 3.0 or higher, HDMI 1.4, Head phone/ Microphone combo/ separate, 1- USB type c
Network card	Integrated/ External (same make as Laptop) 10/100/1000 Mbps Ethernet
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n or higher
Web Cam	Integrated HD Web Camera (Front facing)
Battery	Minimum 40Whr
Power Adapter	Standard power adapter
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Accessories	Carry Bag
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. Ryzen 5 (estimated cost Rs.90,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional)

Parameter	Generic Technical Specification
Processor	Minimum 6 core or higher, 18 MB Cache or higher 7530 Series or higher and minimum 2.00 GHz or higher (Base Frequency) and to be Certified by OEM
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Display	14" or higher diagonal Full HD Display
Memory (RAM)	16 GB DDR4 or higher expandable up to 32 GB
Hard Drive	512 GB SSD or higher
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Minimum 2 USB 3.0 or higher, HDMI 1.4, Head phone/ Microphone combo/ separate, 1- USB type c
Network card	Integrated/ External (same make as Laptop) 10/100/1000 Mbps Ethernet
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n or higher
Web Cam	Integrated HD Web Camera (Front facing)
Battery	Minimum 40Whr
Power Adapter	Standard power adapter
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Accessories	Carry Bag
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

III. Mid-High level configuration

A. Intel i7/ Intel Core 7 (estimated cost Rs.1,00,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional)

Parameter	Generic Technical Specification
Processor	Intel i7/ Intel Core 7, Minimum 8 core or higher, 12 MB Cache or higher 13th or higher Generation and to be Certified by OEM
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Display	14" or higher diagonal Full HD Display
Memory (RAM)	16 GB DDR4 or higher expandable up to 32 GB
Hard Drive	1 TB SSD or higher
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Minimum 2 USB 3.0 or higher, HDMI 1.4, Head phone/ Microphone combo/ separate, 1- USB type c
Network card	Integrated/ External (same make as Laptop) 10/100/1000 Mbps Ethernet
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n or higher
Web Cam	Integrated HD Web Camera (Front facing)
Battery	Minimum 40Whr
Power Adapter	Standard power adapter
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Accessories	Carry Bag
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. Ryzen 7 (estimated cost Rs.1,00,000 (excluding GST) considering pre-installed Genuine Windows 11 Profesional)

Parameter	Generic Technical Specification
Processor	Minimum 8 core or higher, 20 MB Cache or higher 7730 Series or higher and minimum 2.00 GHz or higher (Base Frequency) and to be Certified by OEM
Operating System	1. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 2. Recovery partition (applicable for Windows).
Display	14" or higher diagonal Full HD Display
Memory (RAM)	16 GB DDR4 or higher expandable up to 32 GB
Hard Drive	1 TB SSD or higher
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Minimum 2 USB 3.0 or higher, HDMI 1.4, Head phone/ Microphone combo/ separate, 1- USB type c
Network card	Integrated/ External (same make as Laptop) 10/100/1000 Mbps Ethernet
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n or higher
Web Cam	Integrated HD Web Camera (Front facing)
Battery	Minimum 40Whr
Power Adapter	Standard power adapter
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Accessories	Carry Bag
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

IV. High level configuration

A. Intel Core Ultra 5 Processor with NPU (estimated cost Rs. 1,35,000 (Excluding GST) considering pre-installed Genuine Windows 11 Professional)

Parameter	Generic Technical Specification
Processor	Intel Core Ultra 5 processor or higher Generation with NPU enabled processor, with minimum 10 core or higher, 12 MB Cache or higher, with minimum 1.3 GHz or higher (Base Frequency) and to be Certified by OEM
Operating System	3. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 4. Recovery partition (applicable for Windows).
Display	14" or higher diagonal Full HD Display
Memory (RAM)	16 GB DDR5 4400MHz or higher expandable up to 32 GB
Hard Drive	1 TB SSD or higher
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Minimum 2 USB 3.0 or higher, HDMI 1.4, Head phone/ Microphone combo/ separate, 1- USB type c
Network card	Integrated/ External (same make as Laptop) 10/100/1000 Mbps Ethernet
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n or higher
Web Cam	Integrated HD Web Camera (Front facing)
Battery	Minimum 40Whr
Power Adapter	Standard power adapter
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Accessories	Carry Bag
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. Ryzen 5 8000 Series with NPU (estimated cost Rs.1,25,000 (Excluding GST) considering pre-installed Genuine Windows 11 Professional)

Parameter	Generic Technical Specification
Processor	Ryzen 5 8000 or higher series with inbuilt NPU, wtih Minimum 6 core or higher, 22 MB Cache or higher, minimum 2.40 GHz or higher (Base Frequency) and to be Certified by OEM
Operating System	3. Pre-Installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 4. Recovery partition (applicable for Windows).
Display	14" or higher diagonal Full HD Display
Memory (RAM)	16 GB DDR5 4400MHz or higher expandable up to 32 GB
Hard Drive	512 GB SSD or higher
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Minimum 2 USB 3.0 or higher, HDMI 1.4, Head phone/ Microphone combo/ separate, 1- USB type c
Network card	Integrated/ External (same make as Laptop) 10/100/1000 Mbps Ethernet
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n or higher
Web Cam	Integrated HD Web Camera (Front facing)
Battery	Minimum 40Whr
Power Adapter	Standard power adapter
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Accessories	Carry Bag
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

V. Premium level configuration

A. Intel Core Ultra 7 processor with NPU (estimated cost Rs. 1,50,000 (Excluding GST) considering pre-installed Genuine Windows 11 Professional)

Parameter	Generic Technical Specification
Processor	Intel Core Ultra 7 processor or higher Generation with NPU enabled processor, with Minimum 10 core or higher, 12 MB Cache or higher, minimum 1.7 GHz or higher (Base Frequency) and to be Certified by OEM
Operating System	3. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 4. Recovery partition (applicable for Windows).
Display	14" or higher diagonal Full HD Display
Memory (RAM)	16 GB DDR5 4400MHz or higher expandable up to 32 GB
Hard Drive	1 TB SSD or higher
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Minimum 2 USB 3.0 or higher, HDMI 1.4, Head phone/ Microphone combo/ separate, 1- USB type c
Network card	Integrated/ External (same make as Laptop) 10/100/1000 Mbps Ethernet
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n or higher
Web Cam	Integrated HD Web Camera (Front facing)
Battery	Minimum 40Whr
Power Adapter	Standard power adapter
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Accessories	Carry Bag
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

3.1

B. Ryzen 7 8000 series with NPU (estimated cost Rs.1,50,000 (Excluding GST) considering pre-installed Genuine Windows 11 Professional)

Parameter	Generic Technical Specification
Processor	Ryzen 7 8000 or higher series with inbuilt NPU, with Minimum 8 core or higher, 22 MB Cache or higher, minimum 2.20 GHz or higher (Base Frequency) and to be Certified by OEM
Operating System	3. Pre-installed OEM Certified Genuine Microsoft Windows 11 Professional (64 bit) or higher/ Latest Linux version (to be decided by concerned Dept. as per requirement) 4. Recovery partition (applicable for Windows).
Display	14" or higher diagonal Full HD Display
Memory (RAM)	16 GB DDR5 4400MHz or higher expandable up to 32 GB
Hard Drive	1 TB SSD or higher
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Minimum 2 USB 3.0 or higher, HDMI 1.4, Head phone/ Microphone combo/ separate, 1- USB type c
Network card	Integrated/ External (same make as Laptop) 10/100/1000 Mbps Ethernet
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n or higher
Web Cam	Integrated HD Web Camera (Front facing)
Battery	Minimum 40Whr
Power Adapter	Standard power adapter
Antivirus	Minimum 3 years subscription Antivirus with protection for Ransomware, Browsing, Phishing along with OEM undertaking to be provided.
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Accessories	Carry Bag
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 4. Workstation:

A. Intel (estimated cost of Rs. 2,50,000 (excluding GST))

Parameter	Minimum Tech. Specifications
Processor	36 MB Cache, 14 Cores, 20 threads, up to 5 GHz Turbo or higher
Chipset	Compatible Chipset
Memory	32 GB (32X1) or higher, DDR5, 4800 MHz (Upgradeable up to minimum 64 GB)
Hard Disk Drive	1 TB or higher Gen. 4 PCIe NVMe M.2 SSD
Graphic Card	4GB or higher
I/O Ports	a) Universal audio jack
	b) min. 2 USB 3.2 Gen 1 Type-A (1x power enabled)
	c) min. 2 HDMI 2.0 or higher/ 1 HDMI 2.0 or higher & 1 DP or higher
	d) min. 4 USB-C ports
	e) Smart Card (Optional)
OS Model specific Certification	Windows/ RHEL Certified (as per requirement)
Networking	a) Min. 2 Integrated 10/100/1000 Mbps Ethernet
	b) Bluetooth 5.2 or above & integrated Wi-Fi 802.11 b/g/n or Wi-Fi 6 (802.11ax) or higher
OS	Windows 11/ RHEL (Windows 11 Pro License included) (English) or higher (as per requirement)
Keyboard & Mouse	Standard USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as Workstation)
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. AMD (estimated cost of Rs. 2,50,000 (excluding GST))

Parameter	Minimum Tech. Specifications
Processor	36 MB Cache, 12 Cores, 24 threads, up to 3.0 GHz Turbo or higher
Memory	32 GB (32X1) or higher, DDR5, 4800 MHz (Upgradeable up to 64 GB)
Hard Disk Drive	1 TB SSD or higher
Graphic Card	4GB or higher
I/O Ports	a) Universal audio jack

	b) min. 2 USB 3.2 Gen 1 Type-A (1x power enabled)
	c) min. 2 HDMI 2.0 or higher/ 1 HDMI 2.0 or higher & 1 DP or higher
	d) min. 4 USB-C ports
	e) Smart Card (Optional)
OS Model specific Certification	Windows/ RHEL Certified (as per requirement)
Networking	a) Min. 2 Integrated 10/100/1000 Mbps Ethernet
	b) Bluetooth 5.2 or above & integrated Wi-Fi 802.11 b/g/n or Wi-Fi 6 (802.11ax) or higher
OS	Windows 11/ RHEL (Windows 11 Pro License included) (English) or higher (as per requirement)
Keyboard & Mouse	Standard USB Keyboard & USB two button optical Mouse with Mouse Pad (Same make as Workstation)
Display	Minimum 23.8 inch or higher, Resolution 1920x1080 or higher Display
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 5. Thin Client (estimated cost Rs. 35,000 (excluding GST))

Parameter	**Generic Technical Specification**
Processor	Intel/AMD Dual Core or higher Processor, minimum 2.0 GHz with 4 MB or Higher Cache
Mother Board	Compatible Chipset
Graphic	HD Graphic
Memory (RAM)	4 GB DDR4 RAM or higher, 2400 MHz or Higher upgradable 16 GB
Storage	256 GB SSD or Higher
Display	21.5 inch (or higher) HD Color Monitor with1920 * 1080 or Higher resolution
Keyboard-Mouse	USB Keyboard (104 Keys) & Optical Scroll Mouse with mouse pad
Accessories	All necessary cables (power and data cables), Vesa kit for wall mounting
I/O Port	Minimum 4 USB (Min 2x3.0) ports, HDMI, Universal Audio Port/ Mic in-Speaker Out Port with extension to support two headphone
Network and connectivity	1 G LAN Ethernet, Integrated 5 G Dual band Wi-Fi
Features	Capable to work on RDP protocol as independent system
Operating System	Preloaded latest linux version with connection broker Citrix or VMware
Preloaded software	(1) Open office latest version (2) Adobe Acrobat Reader

Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 6. Printer –

I. Entry Level Configuration

A. Laser – 18 PPM (estimated cost Rs.10,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print
Printing technology	Laser
Paper size	A4 or higher
Print Speed (Minimum)	18 PPM (Mono) or higher
Print Resolution	600 x 600 dpi or higher
Duplex	Manual Duplex
Connectivity	Hi-Speed USB 2.0 port
Duty Cycle (Monthly)	5000 pages or higher
Memory	16 MB or higher
Input paper tray capacity	100 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

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B. InkTank – 18 PPM (estimated cost Rs. 10,000 (excluding GST))

Parameter	Generic Technical Specification
Functions	Print
Printing technology	InkTank (Bottle/ Pouch Based)
Paper size	A4 or higher
Print Speed (Minimum)	18 PPM (Mono) or higher
Print Resolution	600 x 600 dpi or higher
Duplex	Manual Duplex
Connectivity	Hi-Speed USB 2.0 port
Duty Cycle (Monthly)	5000 pages or higher
Memory	16 MB or higher
Input paper tray capacity	100 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. Laser – 18 PPM (estimated cost Rs.15,000 (excluding GST))

Parameter	Generic Technical Specification
Functions	Print
Printing technology	Laser
Paper size	A4 or higher
Print Speed (Minimum)	18 PPM (Mono) or higher
Print Resolution	600 x 600 dpi or higher
Duplex	Auto
Connectivity	Hi-Speed USB 2.0 port, Wi-Fi
Duty Cycle (Monthly)	5000 pages or higher
Memory	32 MB or higher
Input paper tray capacity	100 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS

Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

D. InkTank – 18 PPM (estimated cost Rs. 15,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print
Printing technology	InkTank (Bottle/ Pouch Based)
Paper size	A4 or higher
Print Speed (Minimum)	18 PPM (Mono) or higher
Print Resolution	600 x 600 dpi or higher
Duplex	Auto
Connectivity	Hi-Speed USB 2.0 port, Wi-Fi
Duty Cycle (Monthly)	5000 pages or higher
Memory	32 MB or higher
Input paper tray capacity	100 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

E. Laser – 18 PPM with Wi-Fi & Ethernet (estimated cost Rs. 20,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print
Printing technology	Laser
Paper size	A4 or higher

Print Speed (Minimum)	18 PPM (Mono) or higher
Print Resolution	600 x 600 dpi or higher
Duplex	Auto
Connectivity	Hi-Speed USB 2.0 port, Wi-Fi, Ethernet
Duty Cycle (Monthly)	8000 pages or higher
Memory	64 MB or higher
Input paper tray capacity	100 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

F. InkTank – 18 PPM with Wi-Fi & Ethernet (estimated cost Rs.20,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print
Printing technology	InkTank (Bottle/ Pouch Based)
Paper size	A4 or higher
Print Speed (Minimum)	18 PPM (Mono) or higher
Print Resolution	600 x 600 dpi or higher
Duplex	Auto
Connectivity	Hi-Speed USB 2.0 port, Wi-Fi, Ethernet
Duty Cycle (Monthly)	8000 pages or higher
Memory	64 MB or higher
Input paper tray capacity	100 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website.

	For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

II. Medium Level Configuration

A. Laser – 25 PPM (estimated cost Rs.20,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print
Printing technology	Laser
Paper size	A4, Legal or higher
Print Speed (Minimum)	25 PPM (Mono) or higher
Print Resolution	600 x 600 dpi or higher
Duplex	Auto (A4 or higher)
Connectivity	Hi-Speed USB 2.0 port or higher
Duty Cycle (Monthly)	10000 pages or higher
Memory	128 MB or higher
Input paper tray capacity	150 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. InkTank – 25 PPM (estimated cost Rs.20,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print
Printing technology	InkTank (Bottle/ Pouch Based)
Paper size	A4, Legal or higher
Print Speed (Minimum)	25 PPM (Mono) or higher
Print Resolution	600 x 600 dpi or higher
Duplex	Auto (A4 or higher)
Connectivity	Hi-Speed USB 2.0 port or higher
Duty Cycle (Monthly)	10000 pages or higher

Memory	128 MB or higher
Input paper tray capacity	150 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. Laser – 25 PPMwith Wi-Fi & Ethernet (estimated cost Rs.25,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print
Printing technology	Laser
Paper size	A4, Legal or higher
Print Speed (Minimum)	25 PPM (Mono) or higher
Print Resolution	600 x 600 dpi or higher
Duplex	Auto (A4 or higher)
Connectivity	Hi-Speed USB 2.0 port or higher, Wi-Fi, Ethernet
Duty Cycle (Monthly)	10000 pages or higher
Memory	128 MB or higher
Input paper tray capacity	150 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

D. InkTank – 25 PPM (estimated cost Rs.25,000 (excluding GST))

Parameter	Generic Technical Specification
Functions	Print
Printing technology	InkTank (Bottle/ Pouch Based)
Paper size	A4, Legal or higher
Print Speed (Minimum)	25 PPM (Mono) or higher
Print Resolution	600 x 600 dpi or higher
Duplex	Auto (A4 or higher)
Connectivity	Hi-Speed USB 2.0 port or higher, Wi-Fi, Ethernet
Duty Cycle (Monthly)	10000 pages or higher
Memory	128 MB or higher
Input paper tray capacity	150 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

III. Mid-High Level Configuration

A. Laser – 30 PPM (estimated cost Rs. 30,000 (excluding GST))

Parameter	Generic Technical Specification
Functions	Print
Printing technology	Laser
Paper size	A4, Legal or higher
Print Speed (Minimum)	30 PPM (Mono) or higher
Print Resolution	600 x 600 dpi or higher
Duplex	Auto (A4 or higher)
Connectivity	Hi-Speed USB 2.0 port or higher, Wi-Fi, Ethernet
Duty Cycle (Monthly)	10000 pages or higher
Memory	256 MB or higher
Input paper tray capacity	200 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS

Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. InkTank – 30 PPM (estimated cost Rs.30,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print
Printing technology	InkTank (Bottle/ Pouch Based)
Paper size	A4, Legal or higher
Print Speed (Minimum)	30 PPM (Mono) or higher
Print Resolution	600 x 600 dpi or higher
Duplex	Auto (A4 or higher)
Connectivity	Hi-Speed USB 2.0 port or higher, Wi-Fi, Ethernet
Duty Cycle (Monthly)	10000 pages or higher
Memory	256 MB or higher
Input paper tray capacity	200 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

IV. Colour Printer Laser – 20 PPM (estimated cost Rs. 30,000 (excluding GST))

Parameter	**Generic Technical Specification**
Printing Technology	Laser
Printing Function	Print
Type of Printing	Colour
Duplex	Auto
Paper Size	A4, Legal

Print Speed (A4)Mono	20 PPM or higher
Print Speed (A4) color	20 PPM or higher
Print Resolution	600x600 Dpi or higher
Memory	256 MB or higher
Network Connectivity	USB, Ethernet, Wi-Fi
Cartridges	Black &Color Cartridges per install
Paper Tray Capacity (A4)	150 pages or higher
Duty Cycle(Monthly)	8000 pages or higher
Software media	Driver & Utility software from the same OEM
Compatible Operating System	Windows, Linux, Mac OS.
Accessories	All necessary cables (Power & Communication)
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the Specs. will not be considered valid.	

V. Dot Matrix Printer (DMP) (estimated cost Rs. 18,000 (excluding GST))

Parameter	**Generic Technical Specifications**
Pin	9 Pin
Columns	80 Column
High Speed Draft	500 CP Sat High Speed, Draft, 12 CPI or higher
Draft	300 CP Sat Draft, 10 CPI
Copies	1+4
Interface	Parallel and USB (Both USB and parallel cables along with accessories to be provided)
Input Buffer	100 KB or higher
Drivers	Windows/ Linux through website
Print Head Life	Min. 200 million character or better
MTBF (hrs. at 25% of duty cycle)	20000 POH or higher
Ribbon (Million Characters)	Min.7.5 or higher
MTBF (POH) @ 25% duty cycle)	Min.15,000
Accessories	All Accessories cables (Power and Data Cable) to be included
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website.

	For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

VI. Dot Matrix Printer 80 Column: (Overall estimated cost Rs. 25,000 (excluding GST))

Features	**Specification**
Printer type	Dot Matrix Printer
Pins	24 pins
Column	80 column or higher
Print speed in 12 CPI HSD	400 CPS or higher
Print speed in 10 CPI HSD	340 CPS or higher
Print speed in 10 CPI Draft	250 CPS or higher
Built in Barcode fonts	Yes. 8 built in barcode fonts
Built in Indian Language Fonts	YES
Paper path	Rear and Top Rear in, Top out
Copy capability	Min. 1+3 copies
Input Data Buffer	128 KB or higher
Standard Interface	Parallel, USB 2.0 and Serial
Ribbon Life	3 Million characters
Print Head Life	400 Mn strokes / pin
MTBF	10000 PoH
Acoustic Noise	53 DB
Operating System support	Windows and Linux
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

VII. Dot Matrix Printer 136 Column: (Overall estimated cost Rs. 40,000 (excluding GST))

Features	**Specification**
Printer type	Dot Matrix Printer
Pins	24 pins
Column	136 column or higher
Print speed in 12 CPI HSD	400 CPS or higher

Print speed in 10 CPI HSD	340 CPS or higher
Print speed in 10 CPI Draft	250 CPS or higher
Built in Barcode fonts	Yes. 8 built in barcode fonts
Built in Indian Language Fonts	YES
Paper path	Rear and Top Rear in, Top out
Copy capability	Min. 1+3 copies
Input Data Buffer	128 KB or higher
Standard Interface	Parallel, USB 2.0 and Serial
Ribbon Life	3 Million characters
Print Head Life	400 Mn strokes / pin
MTBF	10000 PoH
Acoustic Noise	53 DB
Operating System support	Windows and Linux
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

VIII. Barcode Printer (estimated cost Rs. 12,000 (excluding GST))

Parameter	Generic Technical Specification
Printing Technology	Thermal Transfer
Print Speed	2 IPS or higher
Print Width	100mm (4.09") or higher
Print Length	991mm (39.33") or higher
Ribbon Length	Minimum 300 Mtr.
Ribbon	Automatic Ribbon Control & Positioning System
Label Sensor Type	Fully Adjustable Sensor with Label gap, card notch & reflective black mark
Label Roll Capacity	Internal- 125 mm OD
Memory	Flash -2MB, DRAM-6 MB
Interface	RS-232/ Centronics Parallel Port, USB
Bar Code	1D Barcodes: Min.12standard barcodes 22D Barcodes: Min. PDF-417, Maxi code, Data matrix
Media Type	Roll-fed, Fan fold, Continuous, Die cut, black mark, ticket, tag
Media Width	1" to 4.1" with adjustable printing size.
Cables & Interfaces	All necessary cables & interfaces for connectivity to Mains & Computer.
Others	Should come with drivers for Windows, Mac OS

Integration	Easy integration with HIS application
Accessories	All Accessories cables (Power and Data Cable) to be included
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 7. Multifuncational Printer

I. Entry Level Configuration

A. Laser – 20 PPM (estimated cost Rs.17,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print, Scan, Copy
Printing Technology	Laser
Print Speed (Minimum)	20 PPM (Mono) or higher
Paper Size	A4 or above
Print Resolution	600 x 600 dpi or higher
Duplex	Manual
Memory	64 MB or higher
Display	Yes
Connectivity	USB/ Ethernet, Wi-Fi
Duty Cycle (Monthly)	5000 pages or higher
Copy Speed	10 PPM or higher
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Resolution	600 x 600 dpi or higher
Scan Type	FLATBED
Input paper tray capacity	150 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official

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	letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. InkTank – 20 PPM (estimated cost Rs.17,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print, Scan, Copy
Printing Technology	InkTank (Bottle/ Pouch Based)
Print Speed (Minimum)	20 PPM (Mono) or higher
Paper Size	A4 or above
Print Resolution	600 x 600 dpi or higher
Duplex	Manual
Memory	64 MB or higher
Display	Yes
Connectivity	USB/ Ethernet, Wi-Fi
Duty Cycle (Monthly)	5000 pages or higher
Copy Speed	10 PPM or higher
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Resolution	600 x 600 dpi or higher
Scan Type	FLATBED
Input paper tray capacity	150 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

II. Medium Level Configuration

A. Laser – 25 PPM (estimated cost Rs.25,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print, Scan, Copy
Printing Technology	Laser
Print Speed (Minimum)	25 PPM (Mono) or higher

Paper Size	A4 or above
Print Resolution	600 x 600 dpi or higher
Duplex	Auto
Memory	64 MB or higher
Display	Yes
Connectivity	USB, Ethernet, Wi-Fi
Duty Cycle (Monthly)	8000 pages or higher
Copy Speed	10 PPM or higher
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Resolution	600 x 600 dpi or higher
Scan Type	FLATBED with ADF/ DADF or better
Input paper tray capacity	150 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. InkTank – 25 PPM (estimated cost Rs. 25,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print, Scan, Copy
Printing Technology	InkTank (Bottle/ Pouch Based)
Print Speed (Minimum)	25 PPM (Mono) or higher
Paper Size	A4 or above
Print Resolution	600 x 600 dpi or higher
Duplex	Auto
Memory	64 MB or higher
Display	Yes
Connectivity	USB, Ethernet, Wi-Fi
Duty Cycle (Monthly)	8000 pages or higher
Copy Speed	10 PPM or higher
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Resolution	600 x 600 dpi or higher
Scan Type	FLATBED with ADF/ DADF or better

Input paper tray capacity	150 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. Laser – 30 PPM (estimated cost Rs.30,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print, Scan, Copy
Printing Technology	Laser
Print Speed (Minimum)	30 PPM (Mono) or higher
Paper Size	A4 or above
Print Resolution	600 x 600 dpi or higher
Duplex	Auto
Memory	128 MB or higher
Display	Yes
Connectivity	USB, Ethernet, Wi-Fi
Duty Cycle (Monthly)	10000 pages or higher
Copy Speed	10 PPM or higher
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Resolution	600 x 600 dpi or higher
Scan Type	FLATBED with ADF/ DADF or better
Input paper tray capacity	200 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website.

	For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

D. InkTank – 30 PPM (estimated cost Rs.30,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print, Scan, Copy
Printing Technology	InkTank (Bottle/ Pouch Based)
Print Speed (Minimum)	30 PPM (Mono) or higher
Paper Size	A4 or above
Print Resolution	600 x 600 dpi or higher
Duplex	Auto
Memory	128 MB or higher
Display	Yes
Connectivity	USB, Ethernet, WI-FI
Duty Cycle (Monthly)	10000 pages or higher
Copy Speed	10 PPM or higher
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Resolution	600 x 600 dpi or higher
Scan Type	FLATBED with ADF/ DADF or better
Input paper tray capacity	200 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

III. Mid-High Level Configuration

A. Laser – 35 PPM (estimated cost Rs.35,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print, Scan, Copy
Printing Technology	Laser

Print Speed (Minimum)	35 PPM (Mono) or higher
Paper Size	A4, Legal or above
Print Resolution	600 x 600 dpi or higher
Duplex	Auto (A4 or higher)
Memory	256 MB or higher
Display	Yes
Connectivity	USB, Ethernet, Wi-Fi
Duty Cycle (Monthly)	20000 pages or higher
Copy Speed	10 PPM or higher
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Resolution	600 x 600 dpi or higher
Scan Type	FLATBED with ADF/ DADF or better
Input paper tray capacity	200 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. InkTank – 35 PPM (estimated cost Rs.35,000 (excluding GST))

Parameter	**Generic Technical Specification**
Functions	Print, Scan, Copy
Printing Technology	InkTank (Bottle/ Pouch Based)
Print Speed (Minimum)	35 PPM (Mono) or higher
Paper Size	A4, Legal or above
Print Resolution	600 x 600 dpi or higher
Duplex	Auto (A4 or higher)
Memory	256 MB or higher
Display	Yes
Connectivity	USB, Ethernet, Wi-Fi
Duty Cycle (Monthly)	20000 pages or higher
Copy Speed	10 PPM or higher
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Resolution	600 x 600 dpi or higher

Scan Type	FLATBED with ADF/ DADF or better
Input paper tray capacity	200 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. A3 Laser – 20 PPM: (estimated cost Rs. 50,000 (excluding GST))

Parameter	Generic Technical Specification
Functions	Print , Scan, Copy
Printing Method	Laser Mono
Paper size support	A3 or higher
Print Speed	20 PPM for A4 10 PPM for A3
Print Resolution	600 x 600 dpi or higher
Auto Duplex Print (For A3 and A4 for both)	Yes
Memory	128 MB or higher
Connectivity	USB/ Ethernet
Duty Cycle (Monthly)	5000 pages or higher
Copy Speed	20 PPM or higher
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Type	RADF/ DADF/ SPDF or better
ADF paper tray capacity	40 pages or higher
Scan Resolution	600 x 600 dpi or higher
Input paper tray capacity	Minimum 100 or higher pages
Display	Yes
Compatible operating systems	Windows & Linux
Cables / Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	ROHS, ISO 9001

Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

D. A3 Inktank – 20 PPM: (estimated cost Rs. 50,000 (excluding GST))

Parameters	Generic Technical Specification
Functions	Print , Scan, Copy
Printing Mathod	Inktank (Bottle/ Pouch Based) Mono
Paper size support	A3 or higher
Print Speed	20 PPM for A4 10 PPM for A3
Print Resolution	600 x 600 dpi or higher
Auto Duplex Print (For A3 and A4 for both)	Yes
Memory	128 MB or higher
Connectivity	USB/ Ethernet
Duty Cycle (Monthly)	5000 pages or higher
Copy Speed	20 PPM or Higher
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Type	RADF/ DADF/ SPDF or better
ADF paper tray capacity	40 pages or higher
Scan Resolution	600 x 600 dpi or higher
Input paper tray capacity	Minimum 100 or higher pages
Display	Yes
Compatible operating systems	Windows & Linux
Cables / Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official

	letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.

Note:
Any deviation/ alteration/ modification in the specification will not be considered valid.

IV. MFP Color

A. Color 20 PPM InkTank : (estimated cost Rs. 40,000 (excluding GST))

Parameter	Generic Technical Specification
Functions	Print, Scan, Copy
Printing Technology	InkTank (Bottle/ Pouch Based)
Print Speed (Mono)	20 PPM or higher
Print Speed (Color)	20 PPM or higher
Paper Size	A4 or above
Print Resolution	600 x 600 dpi or higher
Duplex	Auto
Memory	64 MB or higher
Display	Yes
Connectivity	USB/ Ethernet, Wi-Fi
Duty Cycle (Monthly)	10000 pages or higher
Copy Speed	10 PPM or higher
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Resolution	600 x 600 dpi or higher
Scan Type	FLATBED with ADF/ DADF or better
Input paper tray capacity	150 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.

Note:
Any deviation/ alteration/ modification in the specification will not be considered valid.

B. Color 20 PPM Laser : (estimated cost Rs. 40,000 (excluding GST))

Parameter	Generic Technical Specification
Functions	Print, Scan, Copy

Printing Technology	Laser
Print Speed (Mono)	20 PPM or higher
Print Speed (Color)	20 PPM or higher
Paper Size	A4 or above
Print Resolution	600 x 600 dpi or higher
Duplex	Auto
Memory	64 MB or higher
Display	Yes
Connectivity	USB/ Ethernet, Wi-Fi
Duty Cycle (Monthly)	10000 pages or higher
Copy Speed	10 PPM or higher
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Resolution	600 x 600 dpi or higher
Scan Type	FLATBED with ADF/ DADF or better
Input paper tray capacity	150 pages or higher
Compatible OS	Windows and Linux
Cables/ Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. A3 Inktank – 20 PPM: (estimated cost Rs. 75,000 (excluding GST))

Parameters	Generic Technical Specification
Functions	Print , Scan, Copy
Printing Mathod	Inktank (Bottle/ Pouch Based) Colour & Mono both
Paper size support	A3 or higher
Print Speed	20 PPM (Mono & Colour) for A4 10 PPM (Mono & Colour) for A3
Print Resolution	600 x 600 dpi or higher
Auto Duplex Print (For A3 and A4 for both)	Yes
Memory	128 MB or higher
Connectivity	USB, Ethernet, Wi-Fi
Duty Cycle (Monthly)	5000 pages or higher

Copy Speed	20 PPM or Higher for mono and colour both
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Type	RADF/ DADF/ SPDF or better
ADF paper tray capacity	40 pages or higher
Scan Resolution	600 x 600 dpi or higher
Input paper tray capacity	Minimum 100 or higher pages
Display	Yes
Compatible operating systems	Windows & Linux
Cables / Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

D. A3 Laser – 20 PPM: (estimated cost Rs. 75,000 (excluding GST))

Parameter	Generic Technical Specification
Functions	Print , Scan, Copy
Printing Method	Laser Colour & Mono both
Paper size support	A3 or higher
Print Speed	20 PPM (Mono & Colour) for A4 10 PPM (Mono & Colour) for A3
Print Resolution	600 x 600 dpi or higher
Auto Duplex Print (For A3 and A4 for both)	Yes
Memory	128 MB or higher
Connectivity	USB, Ethernet, Wi-Fi
Duty Cycle (Monthly)	5000 pages or higher
Copy Speed	20 PPM or Higher for mono and colour both
Copy Resolution	600 x 600 dpi or higher
Scan File Format	PDF, JPEG etc.
Scan Type	RADF/ DADF/ SPDF or better
ADF paper tray capacity	40 pages or higher
Scan Resolution	600 x 600 dpi or higher
Input paper tray capacity	Minimum 100 or higher pages
Display	Yes
Compatible operating systems	Windows & Linux

Cables / Accessories	All the required cables, accessories
Software Media	Driver & Utility software from the same OEM
Model specific Certifications	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 8. Scanner –

I. Flatbed Scanner (A4) (estimated cost Rs. 10,000 (excluding GST))

Parameter	Generic Technical Specification
Type	Flatbed
Print Resolution	600 x 600 dpi
Light source	RGB LED
Paper size support	A4
Interface	USB
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

II. Flatbed with ADF Scanner (A4) (estimated cost Rs. 25,000 (excluding GST))

Parameter	Generic Technical Specification
Type	Flatbed with ADF
Speed (minimum)	25 PPM or higher
Print Resolution	600 x 600 dpi
Light source	RGB LED
Paper size support	A4, Letter, Legal, Envelop
Duplex paper support	A4 or higher
Interface	USB
Daily Duty cycle (minimum)	1000 scan/ day

ADF feeder capacity (minimum)	50 sheets or higher
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

III. Sheet Feed Scanner (A4/ Legal) (estimated cost Rs. 30,000 (excluding GST))

Parameters	Generic Technical Specifications
Scanner Type	Sheet Feed Scanner
ADF Capacity	Min. 50 Sheets or higher
Scanning	Simplex, Single Pass Duplex
Paper Size Support	A4, Legal, Letter
Optical resolutions	600 x 600 dpi (Color and Mono Sheet Feed)
Daily Duty Cycle	Approx. 3000 scans per day or higher
Scan Speed	25 PPM or higher
Interface	USB 2.0 or higher
Scan Format	PDF, JPEG/ PNG
Light Source	LED
Accessories	USB Cable, AC adaptor, Power Cable, Setup guide document, Installation software
Model specific Certification	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

IV. Flatbed Scanner (A3 Size) (estimated cost Rs. 70,000 (excluding GST))

Parameter	Generic Technical Specifications
Paper size Support	A3, A4, Legal
Scanning Resolution	minimum 600*600 dpi or higher

Interface	USB 2.0
Sensor	Contact Image Sensor (CIS)/ Charge Coupled Device (CCD)
Scan Format	PDF, PDF/ A
Light Source	LED
Operating System Support	Windows/ Linux
Bundled Software Solutions	Industry standard interfaces for connecting software e.g. Windows ISIS/ TWAIN and Mac TWAIN drivers
Accessories	USB Cable , AC adaptor , Power Cable, Setup guide document, Installation software
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

V. Barcode Scanner (estimated cost Rs. 6,000 (excluding GST))

Parameter	Generic Technical Specification
Compatible Devices	Laptops and PC
Connectivity Technology	USB
Scan Speed	100 scan/ Sec. or higher
Light source	LED/Infrared light/Visible light/laser
Scanner Type	Portable
Model specific Certifications	BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 9. Tablet

I. Tablet (10 inch-3GB – 32GB) (estimated cost Rs. 15,000 (excluding GST))

Parameter	Generic Technical Specifications
Display Size (Min.) (Inch)	10 Inch or higher
Display Resolution (Pixels)	1920*1200 or higher
Display Type	IPS/ TFT LCD or equivalent
Brightness (Nits)	350 or higher
Operating System	Android 11.0 or Higher
Connectivity Type	Wi-Fi
Wi-Fi Connectivity Type	802.11 a/b/g/n or higher
Bluetooth Connectivity	5.0 or higher
Processor	Octa Core 2.0 GHz or Higher (Cellular data Support-4G/LTE)
RAM Size and type	3 GB LPDDR3 or higher
Internal Storage	32 GB or higher
Location Technology	GPS/ A.GPS
Storage upgradable up to (Through Micro SD Card)	256 GB or higher
Rear Camera	8 MP or higher
Front Camera	5 MP or higher
Battery Capacity (Min.)	7000 mAh or higher
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Additional Accessories	USB Cable & Charger
Tablet Cover	Compatible Smart cover for TAB, cover should have stand to hold the TAB
Features	MDM (If required by the Dept.)
Warranty	The product shall carry a 3-year comprehensive warranty, including the battery, verifiable through the OEM. The standard product warranty, including the battery, shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Declaration on Land Border Clause	Declaration from OEM and Bidder
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

II. Tablet (10.1 inch-6 GB – 128 GB) (estimated cost Rs. 25,000 (excluding GST))

Parameter	Minimum Specification
Type	Touch Screen
Operating System	Android 11.0 or higher
Display Size	10.1 inch or higher

RAM Size	6 GB or higher
Internal Storage	128 GB or higher
Connectivity	Wi-Fi 802.11 a/b/g/n/ac 2.4G&5GHz, Cellular, Bluetooth Ver. 5.0 or higher
Cellular Data Support	4G/ LTE or higher
Processor	Octa Core with 2.0 GHz or better (Mediatek/ Exynos/ Qualcomm Snapdragon)
Storage upgradable up to	256 GB or higher
Display Resolution	1920x1200 or better (Pixels)
Rear Camera(MP)	8 MP or more
Front Camera(MP)	5 MP or more
Battery Capacity	7000 mAh or higher
Location Technology	GPS & A-GPS
Weight	550gm or less
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Accessories	USB cable and charger
Features	MDM (If required by the Dept.)
Warranty	The product shall carry a 3-year comprehensive warranty, including the battery, verifiable through the OEM. The standard product warranty, including the battery, shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

III. Tablet (8.5 inch- 4 GB – 64 GB) (estimated cost Rs.15,000 (excluding GST))

Parameter	**Generic Technical Specifications**
Display Size (Min.) (Inch)	8.5" Inch or higher
Display Resolution (Pixels)	1340*800 or higher
Display Type	IPS/ TFT LCD or equivalent
Brightness (Nits)	350 or higher
Operating System	Android 13.0 or Higher
Connectivity Type	Wi-Fi & 4G/LTE
Wi-Fi Connectivity Type	802.11 a/b/g/n or higher
Bluetooth Connectivity	5.0 or higher
Processor	Octa Core 2.0 GHz or Higher
RAM Size and type	4 GB LPDDR3 or higher
Internal Storage	64 GB or higher
Location Technology	GPS/ AGPS
Storage upgradable up to (Through Micro SD Card)	256 GB or higher

Rear Camera	8 MP or higher
Front Camera	2 MP or higher
Battery Capacity (Min.)	5000 mAh or higher
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Additional Accessories	USB Cable & Charger
Features	MDM (If required by the Dept.)
Warranty	The product shall carry a 3-year comprehensive warranty, including the battery, verifiable through the OEM. The standard product warranty, including the battery, shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 10. UPS –

I. 1KVA (estimated cost Rs. 7,500 (including GST))

Parameter	**Generic Technical Specifications**
UPS Capacity	1 KVA
Mode	Line interactive
Protection	Full Protection
voltage	230V / 50 Hz
Range	170V- 270V
Power factor	0.6 or higher
Back up time	168 VAH for 20 Minutes back upon 1 PC (In built Batteries)
Indicator	Mains On/ On Battery/ Low Battery/ Fault/ Overload
Plug and cable	As per standard
Battery Type	Sealed Lead Acid Valve Regulated
Alarm	ON Battery/ Fault Over Load, Low Battery
Model specific Certifications	BIS
Compliance	ISO 9001
Test report	OEM should submit test report for the quoted model issued by State/ Central laboratory/ NABL accredited labs (not old from last 5 Years)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website.

	For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

II. 2 KVA (estimated cost of Rs. 10,000 (including GST))

Parameter	**Generic Technical Specifications**
UPS Capacity	2 KVA
Mode	Line interactive
Protection	Full Protection
voltage	230V/ 50Hz
Range	170V-270V
Power factor	0.6 or higher
Back up time	504 VAH for 30 Minutes back upon 4 PC (In built Batteries)
Indicator	Mains On/ On Battery/ Low Battery/ Fault/ Overload
Plug and cable	As per standard
Battery Type	Sealed Lead Acid Valve Regulated
Alarm	ON Battery/ Fault Over Load, Low Battery
Model specific Certifications	BIS
Compliance	ISO 9001
Test report	OEM should submit test report for the quoted model issued by State/ Central laboratory/ NABL accredited labs (not old from last 5 Years)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

III. Online UPS 1KVA (estimated cost Rs. 20,000 (including GST))

Parameter	**Generic Technical Specifications**
UPS Capacity	1 KVA
Mode	Online
Protection	Full Protection
voltage	230V/ 50Hz
Range	110V-280V @ < 50% load, 170V -280V @100% load
Power factor	0.8 or higher

Back up time	336 VAH for 30 Minutes back upon 2 PC
Indicator/ Display	Mains On/ On Battery/ Low Battery/ Fault/ Overload
Plug and cable	As per standard
Battery Type	Battery shall be of Sealed Maintenance (SMF) or VRLA type with rack/ tray
Alarm	ON Battery/ Fault Over Load, Low Battery
Model specific Certifications	BIS
Compliance	ROHS (Only UPS), ISO 9001
Test report	OEM should submit test report for the quoted model issued by State/ Central laboratory/ NABL accredited labs (not old from last 5 Years)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

IV. Online UPS 2 KVA (estimated cost of Rs. 55,000 (including GST))

Parameter	**Generic Technical Specifications**
UPS Capacity	2 KVA
Mode	Online
Protection	Full Protection
voltage	230V/ 50Hz
Range	110V-280V @ < 50% load, 170V -280V @100% load
Power factor	0.8 or higher
Back up time	672 VAH for 30 Minutes back upon 5 PC
Indicator/ Display	Mains On/ On Battery/ Low Battery/ Fault/ Overload
Plug and cable	As per standard
Battery Type	Battery shall be of Sealed Maintenance (SMF) or VRLA type with rack/ tray
Alarm	ON Battery/ Fault Over Load, Low Battery
Model specific Certifications	BIS
Compliance	ROHS (Only UPS), ISO 9001
Test report	OEM should submit test report for the quoted model issued by State/ Central laboratory/ NABL accredited labs (not old from last 5 Years)
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website.

	For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.

Note:
Any deviation/ alteration/ modification in the specification will not be considered valid.

V. Online UPS 3 KVA (estimated cost Rs. 80,000 (including GST))

Parameter	Generic Technical Specification
Rated Capacity	3 KVA
Mode	Online
Input Voltage Range (Load <50%)	118~280V (± 5V)
Input Voltage Range (Load >50%)	170~280V (± 5V)
Frequency	50 Hz ± 0.1 Hz
Phase	Single Phase with Ground
Power Factor	≥ 0.8
Output Voltage Range	208 / 220 / 230 / 240 V AC
Frequency Range (Synchronized Range)	47 ~ 53 Hz or 57 ~ 63 Hz
Frequency Range (Battery Mode)	50 Hz ± 0.1 Hz or 60Hz ± 0.1 Hz
Thd (Linear Load)	≤2%
Thd (Non-Linear Load)	≤5%
Overload	>110% for 1 Min
	>150% instant turn to Bypass
Crest Factor	3:1 (Max)
Short Circuit Protection	5 cycles turn Off Inverter, no transfer to Bypass, provide Alarm (AC Mode), 5 cycles turn Off Inverter, provide Alarm (Battery Mode), Input Fuse blown or Breaker action
Waveform	Pure Sinewave
TRANSFER TIME (AC Mode To Battery Mode)	
(Inverter To Bypass)	ZERO
	<4 ms
Efficiency	85%~ 92%
Battery	Battery shall be of Sealed Maintenance (SMF) or VRLA type with minimum 1 Hrs. Battery Backup at full load, ISO 9001 & 14001 Certified with Rack/ Trays
RS232, SNMP (Optional)	RS232, SNMP (Optional)
Model specific Certifications	BIS
Compliance	ROHS (Only UPS), ISO 9001
Test report	OEM should submit test report for the quoted model issued by State/ Central laboratory (not old from last 5 Years),

Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

VI. Online UPS 5 KVA (estimated cost Rs. 1,75,000 (including GST))

Item	**Generic Technical Specifications**
UPS Capacity	5 KVA
Mode	Online
DC Voltage	Default 192V+, (192 – 240 Settable)
Type	Single phase, IGBT based, true Online UPS
Input	Single phase-three wires, the bidder has to supply equipment as per power supply available
Output	Single phase-three wires
Output Waveform	Sinusoidal
Power Factor	≥ 0.9
Voltage Regulation	≤ ±2%
Inverter Efficiency	≥93%
Overload Capability	110% for ≥10 Minutes
Total Harmonic distortion (THDI)	<5% at Full load
Transient response	Less than ±10% voltage variation at sudden application/ removal of full load and it shall recover within 20 msec.
Environment	Approx.:0-50°C & 95% RH
Charger	Charging mode shall be provided Battery Charging Voltage & Current shall be adjustable Line & load Regulation: ≤ ±2% Output Ripple: ≤ 3%
Battery	Battery shall be of Sealed Maintenance (SMF) or VRLA type with minimum 1 Hrs. Battery Backup at full load, ISO 9001 & 14001 Certified with Rack/ Tray
Other Requirement	Both Manual & Static bypass switch should be Provided. Build in display for displaying all requisite UPS & battery parameters for both input & output
Model specific Certifications	BIS
Compliance	ROHS (Only UPS), ISO 9001

Test report	OEM should submit test report for the quoted model issued by State/ Central laboratory (not old from last 5 Years),
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 11. IFPD –

1) Interactive Flat Panel 86": (estimated cost Rs. 2,75,000 (including GST))

Parameter	**Generic Technical Specification**
Size (Diagonal)	86" or higher
Panel Technology	IPS/ VA
Resolution (Minimum)	4 K (3840 x 2160)
Brightness	400 nits or better
Contrast Ration (Typical)	1200:01 or better
Viewing Angle (H x V)	178*178
Response Time	8 ms or less
RAM	4 GB or higher
On-board Memory	32 GB or higher
Input (Minimum)	2 x HDMI, 4 x USB (Out of which min 2xUSB3.0), 1 x Audio, 1 x OPS slot, 1 x USB Type- C Port
Output (Minimum)	1 x HDMI, 1 x Audio
Panel Life (Minimum)	30000 Hours or higher
Wi-Fi Supports	Wi-Fi (802.11 a/b/g/n/ac) Support
External Control	RS232C (1), RJ45 (1)
Speaker	Built-in Speaker (15 W+ 15 W) or higher
Platform	Android 13.0 or higher
Detection Method	IR/IPV
Pen (Stylus)	2 nos. with dual pen support and Magnetic Fixtures
Operating System Support	Windows / Linux / Android
Multi Touch Point	Minimum 20 Points with +/- 2.0 mm or better
Surface Hardness	Minimum 3.0 MM Toughened Glass with level 7 MOHS Standard or higher surface hardness (configuration)
Features	Smart Writing of different colors & annotation
Panel Features	Interactive flat panel with Light Sensor / Manual Light & Brightness Control, Connectivity via wireless Screen Cast, Wireless Screen Sharing from Mobile, Tablet, Laptop/PC
Model specific Certifications	BIS and UL/ CE/ CB/ CSA/ FCC

Compliance	ROHS, ISO 9001
User Convenience Features	Multi-Screen with PBP/PIP, min 2 split view, Built in Device Management Solution, etc.
Accessory	Power Cable (IS), HDMI Cable, User Manual, Wall Mount Kit as per requirement
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

2) Interactive Flat Panel 75": (estimated cost Rs. 2,50,000 (including GST))

Parameter	**Generic Technical Specification**
Size (Diagonal)	75" or higher
Panel Technology	IPS/ VA
Resolution (Minimum)	4 K (3840 x 2160)
Brightness	400 nits or better
Contrast Ration (Typical)	1200:01 or better
Viewing Angle (H x V)	178*178
Response Time	8 Ms or less
RAM	4 GB or higher
On-board Memory	32 GB or higher
Input (Minimum)	2 x HDMI, 4 x USB (Out of which min 2xUSB3.0), 1 x Audio, 1 x OPS slot, 1 x USB Type- C Port
Output (Minimum)	1 x HDMI, 1 x Audio
Panel Life (Minimum)	30000 Hours or higher
Wi-Fi Supports	Wi-Fi (802.11 a/b/g/n/ac) Support
External Control	RS232C (1), RJ45 (1)
Speaker	Built-in Speaker (15 W+ 15 W) or higher
Platform	Android 13.0 or higher
Detection Method	IR/ IPV
Pen (Stylus)	2 nos. with dual pen support and Magnetic Fixtures
Operating System Support	Windows / Linux / Android
Multi Touch Point	Minimum 20 Points with +/- 2.0 mm or better
Surface Hardness	Minimum 3.0 MM Toughened Glass with level 7 MOHS Standard or higher surface hardness (configuration)
Features	Smart Writing of different colours & annotation
Panel Features	Interactive flat panel with Light Sensor / Manual Light & Brightness Control, Connectivity via wireless Screen Cast, Wireless Screen Sharing from Mobile, Tablet, Laptop/PC

Model specific Certifications	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
User Convenience Features	Multi-Screen with PBP/PIP, min 2 split view, Built in Device Management Solution, etc.
Accessory	Power Cable (IS), HDMI Cable, User Manual, Wall Mount Kit with 8 no. Fasteners
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

3) Interactive Flat Panel 65": (estimated cost Rs. 2,00,000 (including GST))

Parameter	**Generic Technical Specification**
Size (Diagonal)	65" or higher
Panel Technology	IPS/ VA
Resolution (Minimum)	4 K (3840 x 2160)
Brightness	400 nits or better
Contrast Ration (Typical)	1200:01 or better
Viewing Angle (H x V)	178*178
Response Time	8 MS or less
RAM	4 GB or higher
On-board Memory	32 GB or higher
Input (Minimum)	2 x HDMI, 4 x USB (Out of which min 2xUSB3.0), 1 x Audio, 1 x OPS slot, 1 x USB Type- C Port
Output (Minimum)	1 x HDMI, 1 x Audio
Panel Life (Minimum)	30000 Hours or higher
Wi-Fi Supports	Wi-Fi (802.11 a/b/g/n/ac) Support
External Control	RS232C (1), RJ45 (1)
Speaker	Built-in Speaker (15 W+ 15 W) or higher
Platform	Android 13.0 or higher
Detection Method	IR/ IPV
Pen (Stylus)	2 nos. with dual pen support and Magnetic Fixtures
Operating System Support	Windows / Linux / Android
Multi Touch Point	Minimum 20 Points with +/- 2.0 mm or better
Surface Hardness	Minimum 3.0 MM Toughened Glass with level 7 MOHS Standard or higher surface hardness (configuration)
Features	Smart Writing of different colours & annotation
Panel Features	Interactive flat panel with Light Sensor / Manual Light & Brightness Control, Connectivity via wireless Screen Cast, Wireless Screen Sharing from Mobile, Tablet, Laptop/PC

Model specific Certifications	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
User Convenience Features	Multi-Screen with PBP/PIP, min 2 split view, Built in Device Management Solution, etc.
Accessory	Power Cable (IS), HDMI Cable, User Manual, Wall Mount Kit with 8 no. Fasteners
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 12. TV

1) LED 32"

A. LED 32" with 16/7 duty cycle & 300 Nits or higher brightness: (estimated cost Rs. 20,000 (including GST))

Parameter	**Generic Technical Specification**
Size	32"
Resolution	1920*1080 (FHD)
Brightness	300 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	60%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	16/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard

	product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. LED 32" with 16/7 duty cycle & 400 Nits or higher brightness: (estimated cost Rs. 25,000 (including GST))

Parameter	**Generic Technical Specification**
Size	32"
Resolution	1920*1080 (FHD)
Brightness	400 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	60%%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	16/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model Specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

2) LED 43":

A. LED 43" with 16/7 duty cycle & 300 Nits or higher brightness: (estimated cost Rs. 40,000 (including GST))

Parameter	Generic Technical Specification
Size	43"
Resolution	3840*2160 (4KUHD)
Brightness	300 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	16/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. LED 43" with 16/7 duty cycle & 400 Nits or higher brightness: (estimated cost Rs. 45,000 (including GST))

Parameter	Generic Technical Specification
Size	43"
Resolution	3840*2160 (4KUHD)
Brightness	400 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)

Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	16/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model Specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. **LED 43"** with 24/7 duty cycle & 500 Nits or higher brightness: (estimated cost Rs. 50,000 (including GST))

Parameter	**Generic Technical Specification**
Size	43"
Resolution	3840*2160 (4KUHD)
Brightness	500 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	24/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001

Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

3) LED 48":

A. LED 48" with 16/7 duty cycle & 300 Nits or higher brightness: (estimated cost Rs. 42,000 (including GST))

Parameter	**Generic Technical Specification**
Size	48"
Resolution	3840*2160 (4KUHD)
Brightness	300 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	16/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. LED 48" with 16/7 duty cycle & 400 Nits or higher brightness: (estimated cost Rs. 45,000 (including GST))

Parameter	Generic Technical Specification
Size	48"
Resolution	3840*2160 (4KUHD)
Brightness	400 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	16/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model Specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. LED 48" with 24/7 duty cycle & 500 Nits or higher brightness: (estimated cost Rs. 50,000 (including GST))

Parameter	Generic Technical Specification
Size	48"
Resolution	3840*2160 (4KUHD)
Brightness	500 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%

Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	24/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

4) LED 50":

A. LED 50" with 16/7 duty cycle & 300 Nits or higher brightness: (estimated cost Rs. 45,000 (including GST))

Parameter	**Generic Technical Specification**
Size	50"
Resolution	3840*2160 (4KUHD)
Brightness	300 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	16/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation

Model specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. LED 50" with 16/7 duty cycle & 400 Nits or higher brightness: (estimated cost Rs. 50,000 (including GST))

Parameter	**Generic Technical Specification**
Size	50"
Resolution	3840*2160 (4KUHD)
Brightness	400 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	16/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model Specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. LED 50" with 24/7 duty cycle & 500 Nits or higher brightness: (estimated cost Rs. 60,000 (including GST))

Parameter	Generic Technical Specification
Size	50"
Resolution	3840*2160 (4KUHD)
Brightness	500 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
Duty Cycle	24/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

5) LED 55":

A. LED 55" with 16/7 duty cycle & 300 Nits or higher brightness: (estimated cost Rs. 55,000 (including GST))

Parameter	Generic Technical Specification
Size	55"
Resolution	3840*2160 (4KUHD)
Brightness	300 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%

Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	16/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. LED 55" with 16/7 duty cycle & 400 Nits or higher brightness: (estimated cost Rs. 60,000 (including GST))

Parameter	**Generic Technical Specification**
Size	55"
Resolution	3840*2160 (4KUHD)
Brightness	400 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	16/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model Specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001

Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. **LED 55"** with 24/7 duty cycle & 500 Nits or higher brightness: (estimated cost Rs. 70,000 (including GST))

Parameter	**Generic Technical Specification**
Size	55"
Resolution	3840*2160 (4KUHD)
Brightness	500 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	24/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

6) LED 65":

A. LED 65" with 16/7 duty cycle & 300 Nits or higher brightness: (estimated cost Rs. 70,000 (including GST))

Parameter	Generic Technical Specification
Size	65"
Resolution	3840*2160 (4KUHD)
Brightness	300 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	16/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. LED 65" with 16/7 duty cycle & 400 Nits or higher brightness: (estimated cost Rs. 80,000 (including GST))

Parameter	Generic Technical Specification
Size	65"
Resolution	3840*2160 (4KUHD)
Brightness	400 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)

Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical
Duty Cycle	16/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model Specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. LED 65" with 24/7 duty cycle & 500 Nits or higher brightness: (estimated cost Rs. 95,000 (including GST))

Parameter	**Generic Technical Specification**
Size	65"
Resolution	3840*2160 (4KUHD)
Brightness	500 Nits or higher
Panel Technology	IPS/ VA
Viewing Angle (H/V)	178°
Display Colors	16.7 million
Color Gamut	72%
Audio	Built in Speaker (10W + 10W)
Input	HDMI 2.0 x 2, USB 2.0x1
Output	Line Level Audio Out-3.5MM Jack/ Bluetooth Audio Connectivity/ Digital out Audio (optical)
Duty Cycle	24/7 Hrs.
Special Features	Built-in Signage Software from same OEM, Smart Share, Web browser, Plug & Play
External Control	RJ45
Mounting	Wall Mount, all required accessories has to be supply for installation
Model specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	ROHS, ISO 9001

Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 13. Web Camera: (estimated cost of Rs. 2000 (including GST))

Parameter	**Generic Technical Specification**
Device Type	Plug & Play Web Camera
Connectivity Technology	Wired
Resolution	Minimum 2 MP and shall support upto 1080P Video Capture at minimum 30 fps
Image Sensor	CMOS
Features	Clear and richer picture with 5G/>=55 degree wide angle Lens, brightness controller, digital zoom, Integrated Privacy shutter
OS Support	Windows, Mac, Linux and Chromebook
Video Input	Color
Audio	Built-in mics with auto noise reduction
Interfaces	USB 2.0 and Above Connector
Cable Details	USB Cable min 1 Meter
Model specific Certification	BIS and UL/ CE/ CB/ CSA/ FCC
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 14. Digital Podium: (estimated cost of Rs. 2,50,000 (including GST) considering highest configuration)

Parameter	**Generic Technical Specification**
Display	Interactive Panel (23.8" active diagonal size)/ 21"/ 19" (As per requirement),

	Resolution 1920 X 1080, 10 Points Multi-touches Free stylus with eraser switch, Video I/O port, four shortcut keys, 11-73-degree adjustable tilt stand with accessories (supplied with Toughened Glass and Anti-Shock Mount)
Integrated Controller	Touch panel control minimum 7" or better (must be fitted in Podium)
	• Min 1 VGA Input, Min 1 VGA Output / HDMI Out / USB Type C port • Min 2 Screen control port • Min 2 RS 232 Port IR receiver for IR Control • Min 2 Hybrid Relay Ports • Min 1 LAN Port
	Squelch Control and frequency from 100 Hz to 15000 Hz (impedance less than 280 ohms)
Temperature controlled fan	Integrated Temperature controlled Cooling fans to help regulate the right temperature for the podium
Mobility	4 Wheels or more as required
Rack Storage	19U or more (to keep tablet/writing panel, CPU, video mixer, DSP, Amplifier, switch &Wi-Fi modem)
Extra Ports on the podium	Power outlet, USB, LAN, Audio In, HDMI
Security	Locking front and sliding cover doors
Keyboard	Pull out the shelf for the keyboard
Controller	• Movement of Screens, Projector, LCD Display, and Volume adjustment shall be controlled through the controller • Video Output can be switched from Podium Desktop and Writing panel through controller • Video Output can be switched from current location to remote location from the desktop/ laptop/ controller • Video Output of tablet/ camera of the class can be viewed at the remote site • Synchronization of student interaction mic with mixers/ DSP for every participating class • Synchronization of different speakers / mic, video equipment and amplifiers in all the classes • Fixed inside the podium/dias resolution : 800X480
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 15. Camera

1) PTZ Camera 18X: (estimated cost of Rs. 1,25,000 (including GST))

Parameter	Generic Technical Specification
Standard	OVNIF Profile S Compliant
White Balance	The camera should have an Option of Auto or Manual White Balance.
Gain Control	The camera should have an auto Gain Control
Picture controls	The camera should have picture control for brightness, color, saturation, contrast, sharpness, and gamma
S/N ratio	The camera should have a S/N Ratio of >50db.
Focus	The camera Lens should have an Auto Focus.
Sensor	The camera should have 1/2.8" HD CMOS
Optical Zoom	The camera should have a 18 X or more Optical Zoom.
Video Output	The camera should have a standard video output though HDMI/ USB/ IP (as per requirement)
Signal Support	The camera should support signals: 1080P@30, 1080P@25, 1080i@60, 1080i@50, 720P@60,720P@50, 720P@30, 720P@25
Pre-sets	The camera should have Up to 16 Position Pre-sets and Min. 10 accessible from IR remote.
Viewing Angle	The camera should have 6° (telephoto), 60° (wide-angle) or better
Pan Range	The camera should have Pan movement range of - 170 degrees to + 170 degrees or better
Tilt Range	The camera should have Tilt movement range of - 30 degrees to + 90 degrees or better
Remote Control	The camera should be supplied with IR remote control as an included accessory, Min. 10 pre-set should be available & should support VISCA, Pelco-D, and Pelco-P camera control protocols
Accessories	All required accessories for installation of camera to be provided like camera bracket, connector kit screws etc.
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

2) PTZ Camera 10X: (estimated cost of Rs. 1,00,000 (including GST))

Parameter	Generic Technical Specification
Sensor	1/2.8" 2MP
White Balance	Auto or Manual White Balance.

Gain Control	auto Gain Control
Back Light	selectable Back-light compensation
S/N ratio	S/N Ratio of >50db.
Focus	Auto Focus.
Iris	Auto/Manual Iris
Optical Zoom	10X or Higher
Digital Zoom	8X or Higher
Signal Support	The camera should support signals: 1080P@30,1080P@25, 1080i@60,1080i@50, 720P@60,720P@50 ,720P@30, 720P@25, PAL, NTSC
Video Output	HDMI/ USB/ IP (as per requirement)
Pre-sets	At least 128 Position Pre-sets
OSD Menu	OSD Menu for checking the status
Image Flip	Vertical and Horizontal Image Auto Flip
Pan Range	The pan movement range of - 100 degrees to + 100 degrees or better
Tilt Range	The tilt movement range of -30 Degrees to + 30 degrees or better
Communication	RS232/ IP
Remote Control	Camera ID base tracking
Accessories	The camera should be supplied with a ceiling mounting structure for proper installation
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

3) PTZ Camera 20X: (estimated cost of Rs. 2,00,000 (including GST))

Parameter	**Generic Technical Specification**
Sensor	1/2.8" 2.3MP
White Balance	Auto or Manual White Balance.
Gain Control	auto Gain Control
Back Light	selectable Back-light compensation
S/N ratio	S/N Ratio of >50db.
Focus	Auto Focus.
Iris	Auto/Manual Iris
Video Output	HDMI/ USB/ IP (as per requirement)
Optical Zoom	20X or Higher

Digital Zoom	12X or higher
Signal Support	1080P@30,1080P@25, 1080i@60,1080i@50, 720P@60,720P@50, 720P@30, 720P@25 ,PAL ,NTSC
Pre-sets	At least 128 Position Pre-sets
OSD Menu	OSD Menu for checking the status
Image Flip	Vertical and Horizontal Image Auto Flip
Pan Range	Pan movement range of - 170 degrees to + 170 degrees or better
Tilt Range	Tilt movement range of -30 Degrees to + 90 degrees or better
Accessories	The camera should be supplied with a ceiling mounting structure for proper installation
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

4) **PTZ Camera Auto tracking 12X:** (estimated cost of Rs. 3,50,000 (including GST))

Parameter	**Generic Technical Specification**
Sensor	1 / 2.8" 8.6M
Video Format	2160p: 59.94 / 50 / 29.97 / 25 1080p: 59.94 / 50 / 29.97 / 25 1080i: 59. 94 / 50 720p: 59.94 / 50
Video Output Interface	USB 3.0/ HDMI/ IP (as per requirement)
Genlock	Yes
Optical Zoom	12X or Higher
Digital Zoom	8X or Higher
Horizontal Viewing Angle / Vertical Viewing Angle / Diagonal Viewing Angle	81° / 50° / 90°
Shutter Speed	1/25 ~ 1/10,000 sec
Video S/N Ratio	>50dB
Minimum Illumination	0.05 lux (F1.6, 50IRE, 30fps)
Focus System/ Gain Control/ White Balance	Auto / Manual
WDR / Image Flip / 3D NR	Yes
Panning Angle	+170° ~ -170°
Tilting Angle	+90° ~ -30°

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Preset Positions	128
HDMI / 12G-SDI	1080p60 or Higher
IP Protocol	HTTP/ RTSP / RTMP / RTMPS / SRT
Output	Ethernet -3G-SDI & HDMI 2.0
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 16. Video Mixer:

a) 4x4 Matrix Switcher with audio de-embedding: (estimated cost of Rs. 50,000 (including GST))

Parameter	**Generic Technical Specification**
Output	Min. 4 HDMI/ USB matrix output (as per requirement)
Input	Min. 4 HDMI/USB Input (as per requirement)
Compliant	HDCP, EDID Compliant
Support	4K/UHD capability @60Hz
CEC	CEC display control
Audio De-embedding	Built-in HDMI audio de-embedding
Color Depth	8bit, 10bit
Bit Rate	upto 24-bit
Audio	Multi-channel audio compliant
Control	TCP/IP, RS232 & IR Control
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

b) Video Mixer: (estimated cost of Rs. 2,00,000 (including GST))

Parameter	Generic Technical Specification
Video In	HDMI type-A/ USB × 4 (as per requirement)
Video Out	HDMI type-A PGM/ USB ×1, HDMI type-A Multiview/ USB ×1 USB 3.0 type C ×1 (Streaming on PC) Assignable HDMI 1~4/ USB, PGM, Clean PGM, PVW, Color bar, Multiview
PC Control Port	LAN×1
Media Library	USB type-A ×1(USB disk port for image import and firmware upgrade)
Transitions	T-Bar/AUTO/ CUT
Effects	Wipe (9×2 patterns)/ Mix/ DIP/ Pattern/ Still(freeze)/ MUTE/ FTB
Audio Mixer	USB/ HDMI ×4 and MIC/ Line level ×2; Audio delay: 0-500ms
Generators	Pattern generator ×1 Colour generators ×2
Accessories	Power supply (12V2A) ×1; USB cable (type A-C) ×1; Tally connector (DB-15) ×1
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 17. Video Graphic Processor

1) Video Graphic Processor: (estimated cost of Rs. 2,00,000 (including GST) considering higher configuration)

Parameter	Generic Technical Specification
Compatibility	Windows 11 / 10/ 8
Form Factor	Desktop external GPU system
Base and Boost Clock:	2.21 and 2.51 (GHz)/ 1.4 and 1.7 (GHz) or higher
Memory Interface Width:	256-bit/ 384-bit
Display Resolution:	7680x4320
Connectors:	3xPCIe 8-pin cables (adapter in box) OR 450 W or greater PCIe Gen 5 cable

Standard Mount Interface:	24 GB GDDR6X/ 16 GB GDDR6X or higher
Resolution	4CIF/DCIF/2CIF/CIF/QCIF/Real-time
Sync	Video and Audio Synchronization
Expansion Slots:	3-Slot (61mm)
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 18. Wall / Ceiling Speakers

1) Wall / Ceiling Speakers (15W): (estimated cost of Rs. 25,000 (including GST) considering higher configuration)

Parameter	**Generic Technical Specification**
Effective frequency range	65 Hz to 20 kHz
Rated noise power/ voltage	15 watts / 15.5 volts (rms) or 18 watts / 15.5 volts (rms) (as per requirement)
Broad-band sensitivity	89 dB SPL
Coverage angle (-6 dB)	110° (500 Hz to 5 kHz)
Maximum continuous SPL	104 dB
Maximum peak SPL	110 dB
Rated impedance	8 ohms
Woofer	Woofer size to be 6" or more HD Type
Frequency	The Speaker should have a frequency response of 80 Hz to 17,000 Hz
Baffle material	Painted ABS polymer/ Powder coated steel/ Galvanized steel
Grille material	Painted ABS polymer/ Powder coated steel/ Galvanized steel
Back can material	Painted ABS polymer/ Powder coated steel/ Galvanized steel
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website.

	For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 19. Power Amplifier (estimated cost of Rs. 1,00,000 (including GST) considering higher configuration)

Parameter	Generic Technical Specification
Channels	1/ 2/ 4 (as per requirement)
Stereo Mode (all channels driven)8 Ω 4 Ω	100 W per channel
Bridged Outputs (all channels driven)8 Ω & 4 Ω 70 V 100 V	Minimum power (in watts) per channel > (total power of amplifier)/ No. of channel(s)
Frequency response (4 Ω and 8 Ω)	20 Hz - 20 KHz +/- 0.1 dB
Signal to noise (20 Hz - 20 KHz)	85 dB or Higher
Input sensitivity	1.23 V (+4 dBu)
Output circuitry	Class D
Input impedance	>10k
Cooling	Convection
Controls	4 Ω/8 Ω/70 V Bridged High pass On/100 V Bridged High pass (per channel pair)
Dimensions	Should be well adjustable in Podium
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 20. DSP with Audio Mixer (estimated cost of Rs. 2,00,000 (including GST))

Parameter	Generic Technical Specification
Audio Ports	Digital Signal Processor with at least 8 Audio Ports IN and minimum 8 Out is required including Audio Input for: • 1 No Gooseneck Mic • 2 No Handheld Mic • 1 No Lapel Mic

	• 1 inbuilt or external USB Audio Port to allow digital connection between DSP and the PC • 01 Laptop in (Preferably USB)
Echo Cancellation	Digital Signal Processor with an Acoustic Echo Cancellation of up to 60 dB would be required or better
Noise Cancellation	The Digital Signal Processor should perform Noise Cancellation of up to 20 dB for the podium microphone, Wireless Lapel Microphone and Handheld Microphone
Environment Noise	The Digital Signal Processor should suppress residual Echo to the Environment Noise Level to prevent Artificial ducking of signal
Equalization	The Digital Signal Processor should have Power Level Equalization
Convergence	Convergence during full duplex
Control	Should have RS232/ Ethernet for control through third party Control system.
Frequency Response	20 Hz to 20 KHz
Dynamic Range	100 dB or better.
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 21. Mic

1) Handheld Mic: (estimated cost of Rs. 50,000 (including GST))

Parameter	**Generic Technical Specification**
Type	Wireless Handheld Microphone
Switching Bandwidth	Up to 24 MHz
Signal o noise ratio	>100dBA or better
Total Harmonic Distortion	<0.9%
Transmitter sync	2.4GHz/Ultra High Frequency (UHF)
Frequency Response	80Hz to 14KHz or better
Sensitivity	< 3 µV at 52 dB(A)
Functionality	Mute/unmute button
Operating time	10 hours or better

Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

2) Lavalier Microphone: (estimated cost of Rs. 50,000 (including GST))

Parameter	**Min. Specifications**
Type	Wireless Lapel Microphone
switching Bandwidth	Up to 24 MHz
Signal-to-noise ratio	>100dBA or better
Total Harmonic Distortion	<0.9%
Transmitter sync	2.4GHz/Ultra High Frequency (UHF)
Frequency Response	50 Hz to 16KHz or better
Sensitivity	< 3 µV at 52 dB(A)
Pre-polarized Polar Pattern	Omni-directional or better
Operating time	10 hours or better
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 22. Switcher (estimated cost of Rs. 1,50,000 (including GST))

Parameter	**Generic Technical Specification**
Audio Output	4KUHD+ 4×2 HDMI Matrix
Connection	Four sources of (4KUHD+ HDMI)
Support signal	4K@60Hz (4:4:4, 8- bit) & 16 bit deep color HDR (High Dynamic Range), 3D content, HD audio and other features defined by the HDMI 2.0
input	independently set to use either an internal (Min. 1080p@60Hz or higher) or external (sink-copied) EDID
per-output auto	source switching & connected display power control using CEC or RS-232
Switching Response	freely switch between input source

Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 23. Projector (estimated cost of Rs. 50,000 (including GST) considering higher configuration)

Parameter	Generic Technical Specification
Technology	3 LCD/ DLP
Projection Method	Front & Rear Both
Minimum Resolution	XGA (1024 x 768)/ WXGA (1280 x 800) (as per requirement)
Brightness	Minimum 3300 ANSI Lumens for Color Light & White Light Output Both
Contrast Ratio	15000:1
Aspect Ratio	Minimum 4:3
Throw Ratio	To be calculated as Throw Distance/ Image Width
Lamp Type	UHE
Lamp Life	Minimum 6000 Hrs. Normal Mode & 12000 Hrs. in Eco Mode
I/O Connection	VGA, HDMI, USB
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 24. LCD Writing Panel
Interactive White Board 21": (estimated cost of Rs. 20,000 (including GST))

Parameter	Generic Technical Specification
Size	Size should be 21 inch or higher
LED	The monitor should be LED backlit.
Resolution	The monitor should have a native resolution of 1920x1080 or better
Port	Should come with a USB port for control signals.
Luminosity	The monitor should have a Luminosity of 210 cd/m^2 or more.
Connectivity	Should have a 15 Pin HD Input ports or DVI port.

OS Support	Should support Win 7 or higher.
Sensor	Should have an Electromagnetic Sensor Method.
Model specific Certification	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 25. Head Phone (estimated cost of Rs. 1200 (including GST))

Parameter	**Generic Technical Specification**
Type	Over the Head, Plug & Play
Noise Cancelling microphone	Yes
Connection Type	Single/ Double 3.5mm Jack/ USB-A/ USB-C (As per requirement of Department)
Impedance	32 Ohms
Frequency Response	Headphone 20Hz-20K HZ, Microphone 100HZ-16K HZ
Sensitivity Headphone	94 dB ±3 dB
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 26. Biometric Scanner (estimated cost of Rs. 3000 (including GST))

Scanning technology	Optical L1- Fingerprint Scanner
Fingerprint Sensor Type	Optical Scratch-Free Sensor
Operation	Plug and Play
Compatibility	Windows 10 or higher, Android
Platen Area	Minimum 12.8mm x 17 mm

Uses	Useful for e-KYC, Interface-USB/C-Type, Should support- Aadhaar Enable, Sim Activation, Payment, Access control, Time & Attendance
Interface	USB 2.0
Model specific Certification	BIS, STQC & UIDAI Certified
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 27. Hard Drive

A. SATA 4 TB (estimated cost of Rs. 18,000 (including GST))

Parameter	**Generic Technical Specification**
Storage	4 TB
Interface	SATA
Type	External
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Connectivity Technology	USB
Compatible Device	Laptop, Desktop, IFPD
Installation Type	Plug in
Accessories	USB 3.0 Cable
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. SATA 2 TB (estimated cost of Rs. 12,000 (including GST))

Parameter	**Generic Technical Specification**
Storage	2 TB
Interface	SATA
Type	External
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard

	product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Connectivity Technology	USB
Compatible Device	Laptop, Desktop, IFPD
Installation Type	Plug in
Accessories	USB 3.0 Cable
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 28. Monitor

A. Monitor 21": (estimated cost Rs. 7,500 (including GST))

Parameter	**Generic Technical Specification**
Screen Size	21"
Panel Type	LCD
Resolution	FHD or Better
Input Output Ports	HDMI x 1, VGA x 1
Screen Feature	Antiglare, Flicker Free
Monitor Stand	Table Mount with Tilt Adjustment
Model specific Certifications	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. Monitor 24": (estimated cost Rs. 9,000 (including GST))

Parameter	**Generic Technical Specification**
Screen Size	24"
Panel Type	LCD
Resolution	FHD or Better
Input Output Ports	HDMI x 1, VGA x 1
Screen Feature	Antiglare, Flicker Free
Monitor Stand	Table Mount with Tilt Adjustment
Model specific Certifications	BIS

Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. Monitor 27": (estimated cost Rs. 12,000 (including GST))

Parameter	**Generic Technical Specification**
Screen Size	27"
Panel Type	LCD
Resolution	FHD or Better
Input Output Ports	HDMI x 1, VGA x 1
Screen Feature	Antiglare, Flicker Free
Monitor Stand	Table Mount with Tilt Adjustment
Model specific Certifications	BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 29. Key-Board & Mouse

A. Key Board (Wired): (estimated cost Rs. 1,000 (including GST))

Parameter	**Generic Technical Specification**
Connectivity	USB
Keys	104
Warranty	The product shall carry a 3-year comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website.

	For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

B. Mouse (Wired): (estimated cost Rs. 500 (including GST))

Parameter	**Generic Technical Specification**
Type	Optical
Connectivity	USB
Button	2 buttons with scroller
Warranty	The product shall carry a 3-year comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

C. Key Board (Wire-less): (estimated cost Rs. 1,500 (including GST))

Parameter	**Generic Technical Specification**
Connectivity	Bluetooth
Keys	104
Model specific Certifications	BIS
Cell type	AA/ AAA
Warranty	The product shall carry a 3-year comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

D. Mouse (Wire-less): (estimated cost Rs. 1,000 (including GST))

Parameter	**Generic Technical Specification**
Type	Optical
Connectivity	Bluetooth
Button	2 buttons with scroller

Model specific Certifications	BIS
Cell type	AA/ AAA
Warranty	The product shall carry a 3-year comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.
Note: Any deviation/ alteration/ modification in the specification will not be considered valid.	

Category 30. CCTV Camera

I. Entry Level configuration

A. Dome camera: (Estimated cost of Rs. 10,000 (including GST))

Parameter	**Generic Technical Specification**
Image Sensor	1/2.8" 2MP PS CMOS
Effective Pixels	1920(H) x 1080(V)
Minimum Illumination	0.002 lux@F1.6
Shutter Speed	Auto/Manual 1/3 s–1/100000s
White Balance	Auto; natural; Street lamp; Outdoor; Manual; Regional custom
RAM & ROM	128 MB
Lens	2.8mm fixed lens (3.6mm optional)
Max. Aperture	F1.6
Gain Control (AGC)	Auto/Manual
Lens Mount	M12
Back Light Compensation	BLC / HLC / WDR (120dB)
S/N Ratio	52 dB or above
Video Compression	H.265; H.264; MJPEG
Resolution	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Frame Rate	Main stream: 1920 × 1080@ (1–25/30 fps) Sub stream: 704 × 576@ (1–25 fps)/704 × 480@ (1–30 fps)
Stream Capability	2 Streams or higher
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 kbps–6144 kbps H.265: 12 kbps–6144 kbps
Noise Reduction	3D-NR
Motion detection	Off / On (4 Zone, Rectangle)
Support: 4 Area	Privacy Mask, ROI
Audio Compression	G.711a; G.711Mu; G.726; PCM

Support	Built in Mic, SDK and API, Smart Illumination, Mirror Function
Protocol	IPv4; IPv6; HTTP; TCP; UDP; RTP; RTSP; RTCP; SMTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP, ONVIF (Profile S/Profile G); CGI
IR Distance	Up to 30 Mtr (IR LED)
IR Control	Auto/Manual
Day/Night	Auto (ICR)/Colour/B/W
Ethernet	RJ-45 (10/100Base-T)
IVS	Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human
Smart search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos
Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; audio detection; voltage detection; SMD; security exception
Cyber Security	Video encryption; Firmware encryption; Configuration encryption; Digest; WSSE; Account lockout; Security logs; IP/ MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS;802.1x; Trusted boot; Trusted execution; Trusted upgrade
Browser	IE; Chrome; Firefox
Smart Phone	iPhone, iPad, Android Phone
Storage	128 GB or higher inbuilt Micro SD card (support max. 256 GB) (As per STQC compliance)
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 1080p resolution and lower)
Weatherproof Standard	IP67 & IK10
Iris Control	Fixed
Power Source	12 VDC/PoE
Casing	Metal
Model specific certification	STQC, UL/ BIS
Compliance	RoHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.

Note:

- Any deviation/ alteration/ modification in the specification will not be considered valid.
- All hardware/ software should be complying with the updated guidelines, required certification mandated by MeitY, GoI and STQC certification.

B. Bullet camera: (Estimated cost of Rs. 12,000 (including GST))

Parameter	Generic Technical Specification
Image Sensor	1/2.8" 2MP PS CMOS Image Sensor (0.9071 centimetres)
Minimum Illumination	0.002 lux@F1.6 (Color, 30 IRE) 0.0002 lux@F1.6 (B/W, 30 IRE) 0 lux (Illuminator on)
Effective Pixels	1920(H) x 1080(V)
Shutter Speed	Auto/Manual 1/3 s-1/100000 s
ROM & RAM	128 MB
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Lens	2.8mm fixed lens (3.6mm optional)
Max. Aperture	F1.6
Close Focus Distance	2.8 mm, 3.6 mm
Lens Mount	M12
Gain Control (AGC)	Auto/Manual
S/N Ratio	52 dB or above
Back Light Compensation	BLC / HLC / WDR (120dB)
Video Compression	H.265, H.264, MJPEG
Stream Capability	2 Streams
Frame Rate	Main stream: 1920 × 1080@ (1-25/30 fps) Sub stream: 704 × 576@ (1-25 fps)/704 × 480@ (1-30 fps)
Resolution	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Bit Rate	H.264: 32 kbps-6144 kbps H.265: 12 kbps-6144 kbps
Bit Rate Control	CBR/VBR
Noise Reduction	3D-NR
Motion detection	OFF/ON (4 areas, rectangular)
Support: 4 areas	Privacy Mask & ROI
Support	Mirror Function, SDK and API
Audio Compression	G.711a; G.711Mu;
Audio	Built-in Mic
IR Distance	IR Range of 30 Mtr.
IR Control	Auto, Manual
Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP, ONVIF (Profile S/Profile T); CGI; Milestone
Ethernet	RJ-45 (10/100Base-T)
Day/Night	Auto (ICR)/Colour/B/W
Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; moton detecton; video tampering; tripwire; intrusion; SMD; voltage detection; security exception
User/Host	6

Cyber Security	Configuration encryption; Trusted execution; Digest; Security logs; WSSE; Account lock- out; syslog; Video encryption; 802.1x; IP/MAC filtering; HTTPS; Trusted upgrade; Trusted boot; Generation and importing of X.509 certification
Smart Phone	IPhone, Android Phone
Storage	128 GB or higher inbuild Micro SD card (support max. 256 GB) (As per STQC compliance)
IVS	Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)
Smart search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 1080p resolution and lower
Weatherproof Standard	IP67
Power Source	12 VDC/ PoE
Casing	Metal
Model specific certification	STQC, UL/ BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.

Note:

- Any deviation/ alteration/ modification in the specification will not be considered valid.
- All hardware/ software should be complying with the updated guidelines, required certification mandated by MeitY, GoI and STQC certification.

C. Network video recorder: (Estimated cost of Rs. 14,000 (including GST))

Parameter	Generic Technical Specification
Processor	Industrial-grade embedded processor
IP Camera Input	8 channel
Operating System	Embedded LINUX
Input/ Output	1 Channel Input, 1 Channel Output
User Interface	Web/operating in local GUI
Video Output	1 VGA/1 HDMI simultaneous video output, maximum resolution 1080P
Compression	H.265/ H.264+/H.264
Decoding Capability	1-ch@8MP (30FPS) or 1-ch@5MP (30FPS) or 2-ch@4MP (30FPS) or 2-ch@3MP (30FPS) or

	4-ch@1080P (30FPS) 8-ch@720P (30FPS)
Resolution	8MP/5MP/4MP/3MP/1080P/720P/D1/CIF
Network Bandwidth	80 Mbps for access, 80 Mbps for storage and 60 Mbps for forwarding
Playback	Play, pause, stop, fast forward, fast backward, rewind, play by frame, Full screen, backup (cut/file), partially enlarge, audio on/off
Recording Mode	Priority of record mode: Manual recording, alarm recording, motion detection recording, timed recording
General Alarm	Motion detection, privacy masking, video loss, PIR alarm, IPC alarm
Anomaly Alarm	Front-end device going offline, storage error, full storage, IP conflict, MAC conflict, login lock, network security anomaly
Alarm Linkage	Video recording, snapshot, log, preset, tour
Hard Disk	1 SATA 2.0, up to 8TB Each
Smart Phone	iPhone, iPad, Android Phone
Backup Mode	USB Device
Storage	Local HDD & Network
Interface Ports	2 USB Ports (1 Rear USB 2.0, 1 Front USB 2.0)
Ethernet	1 RJ-45 Port (10/100Mbps)
Protocols	HTTP, HTTPS, TCP/IP, IPv4, IPv6, RTSP, UDP, NTP, DHCP, DNS, ONVIF (profile T/profile S/profile G), RTSP, CGI, SDK
Power Supply	DC12V, 1.5A
Model specific certification	STQC, UL/ BIS
Compliance	ROHS, ISO 9001
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.

Note:

- Any deviation/ alteration/ modification in the specification will not be considered valid.
- All hardware/ software should be complying with the updated guidelines, required certification mandated by MeitY, GoI and STQC certification.

D. PoE switch: *(Estimated cost of Rs. 3,000* (including GST)*)*

Parameter	**Generic Technical Specification**
Network Ports	10 (8+2) Port

PoE Ports	8 Port with 100Mbps, RJ45 ports, 30W Max. Output of a Single PoE Port with Transmission Distance of 0 -250m
Uplink Ports	2 Uplink Port, 100Mbps with Transmission Distance of 0-100m
Switch Capacity	2 Gbps Full duplex
Packet Forwarding Rate	0.1488 Mpps/Port
Network Standard	IEEE802.3i/802.3u/802.3x
PoE Standard	IEEE802.3af, IEEE802.3at
PoE Feature	All ports support MDI/MDIX
MAC Address List	2K
Transmission Distance	0-100m/100Mbps, Max. 250m/10Mbps via Cat.5e or more under Extend mode
PoE watchdog	Yes
LEDs Indicator	Light On - Powering, Light Off - No Power
Ethernet Port Light	Green Light, Red Light
SW (DIP Indicator)	Light on - VLAN/Extended mode, Light Off - Normal Mode
Extended Mode	Yes
VLAN	Yes
ESD Protection	Contact Discharge 1.5KV / Air Discharge 1.5KV
Forwarding Mode	Store-and-forward
Anti-thunder Level	Common mode: 2KV, Differential mode: 1.5KV
ESD	Contact Discharge 1.5KV / Air Discharge Level 1.5KV
Warranty	The product shall carry a 3-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.

Note:

- Any deviation/ alteration/ modification in the specification will not be considered valid.
- All hardware/ software should be complying with the updated guidelines, required certification mandated by MeitY, GoI and STQC certification.

II. Medium High Level configuration for Surveillance system/ equipment-
General Instruction for below Items:

- All items should have necessary accessories like cable, earthing facility etc. for installation.
- All Hardware/ Software should be Interoperable, IPv6 ready and in compliance with the policies/ guidelines issued by DIT, GoI in this regard.

- All hardware/ software should be complying the updated guidelines and required certification mandated by MeitY, GoI, STQC (WhereVer required)

1. Full HD IP Motorized Bullet Camera with IR: *(estimated cost Rs. 30,000 (including GST))*

SN	Parameter	Generic Technical Specification
1.	Camera Type	Bullet
2.	Standard	ONVIF Profile S Compliant
3.	Integration with existing VMS	SI has to ensure integration with existing VMS necessary SDK of camera for integration to be provided by SI
4.	Model specific Certification	STQC, BIS/ UL
5.	Compliance	RoHS, ISO 9001
6.	Edge Storage	microSD/ microSDHC/ micro SDXC slot along with supporting memory card for min. 256 GB (Min. Class 6 or higher, Card to be included). In the event of failure of connectivity to the network storage the camera shall record video locally on the SD card automatically. After the connectivity is restored, recording should automatically merged with the network storage recording such that no manual intervention is required to transfer the SD card based recordings to network storage.
7.	Image Sensor	1/2 .8" CMOS or better
8.	Resolution	4MP (Min.2560 x 1440) at 25 FPS or better
9.	Max. Mbps Constrained VBR	6
10.	Compression	H.264, H.265
11.	Streaming	Min. Triple stream compressed (Individually Configurable)
12.	Audio	Full Duplex, Audio Input/ Output 1 Ch
13.	Alarm	1 digital input, 1 Relay output
14.	Audio Compression	G.726/G.711
15.	Pre/Post Alarm buffer	Yes
16.	ID/Password	Multi-level user ID/Password
17.	Encryption	HTTP(SSL/TLS)/HTTPS
18.	Video Authentication	For video authentication, classic watermarks/digital signature must be embedded in Video Stream along with name, time, date stamped which cannot be tampered
19.	Physical Layer	10/100 base Tx Ethernet
20.	Protocol	Minimum TCP, HTTP, RTSP, SNMP, IPV4, IPv6, NTP,DHCP, RTP, SMTP, UDP, UPnP, ICMP, IGMP, SSL, QoS, 802.1x, DNS, DDNS, HTTPS

21.	IP Support	Static/dynamic or both
22.	Remote Administration	Remote configuration and status using web based tool
23.	System Update	Remote system update over Network using web client
24.	PC Client	PC application client with a channel recording feature support
25.	Web Client	Viewer through HTTP(min.) System Configuration Setting / Streaming
26.	Simultaneous Connection	5 users or more
27.	Lens Type	8-32mm or better , F1.6 or better, Motorized , Varifocal, Autoiris, and IR corrected
28.	Dynamic Noise Reduction	3D
29.	Auto Exposure	Automatic Level Control/Electronic Level Control
30.	Illumination	Color: 0.003 lux, F1.6 or better B/W: 0.04 lux, F1.6 or better IR Length – 80mtr.
31.	Signal Process	Digital Signal Process
32.	Motion Detection Zones/ privacy zones	3 or higher
33.	Auto Gain Control	Yes
34.	Back Light Compensation	Yes
35.	High Light Compensation	Yes
36.	Electronic Shutter	1/10000s to 1 s or better
37.	White Balance	Yes
38.	Wide Dynamic Range	min 120 db (Sensor based)
39.	High light compensation	Yes
40.	Day and Night	Yes (as per minimum illumination)
41.	Operating Temperature	0 °C to 60 °C Humidity 20–80% RH (non-condensing)
42.	Power Source	Suitable adaptor shall be supplied to make the equipment work on 230V ±10%, 50Hz and Power over Ethernet (POE 802.3 af/at)
43.	Internet protocol	IPv4 and IPv6
44.	Housing	• Poly Carbonate/ Aluminum Construction with IP-67 • having sunshield in-built, • polycarbonate bird control spike, • Including pole mount/wall mount accessories, Power and data cables
45.	Anti-Vandalism rating	IK10

46.	Edge based video content Analytics	Video motion detection and Active tampering alarm
47.	Human & Vehicle Detection/ Classification Alarm	Yes
48.	Accessories	All required accessories at site for installation of camera to be provided like CAT 6 patch chord (7 mtr.), Pole Mount, Corner brackets, Connector kit, screws, required power cable etc.
49.	Warranty	5 years Comprehensive OEM Warranty and Maintenance Support
50.	Warranty	The product shall carry a 5-year onsite comprehensive warranty and Maintenance Support, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.

Note:

- Any deviation/ alteration/ modification in the specification will not be considered valid.
- All hardware/ software should be complying with the updated guidelines, required certification mandated by MeitY, GoI and STQC certification.

2. Full HD IP PTZ Camera with IR: *(estimated cost Rs. 1,00,000 (including GST))*

SN	Parameter	Generic Technical Specification
1.	Camera Type	PTZ
2.	Standard	ONVIF Profile S Compliant
3.	Integration with existing VMS	SI has to ensure integration with existing VMS necessary SDK of camera for integration to be provided by SI
4.	Model specific Certification	STQC, BIS/ UL
5.	Compliance	RoHS, ISO 9001
6.	Edge Storage	microSD/ microSDHC/ microSDXC slot with memory card minimum 256 GB.(Min. Class 6 or higher, Card to be included). In the event of failure of connectivity to the network storage the camera shall record video locally on the SD card automatically. After the connectivity is restored recording should automatically merged with the network storage recording such that no manual intervention is required to transfer the SD card based recordings to network storage.

7.	Image Sensor	1/2.8" CMOS or better
8.	Resolution	4MP (Min.2560 x 1440) at 25 FPS or better
9.	Max. Mbps Constrained VBR	10
10.	Compression	H.264, H.265
11.	Streaming	Min. Triple compressed stream (Individually Configurable)
12.	Audio	Full Duplex, Audio Input/ Output 1 Ch
13.	Alarm	1 digital input, 1 Relay output
14.	Audio Compression	G.726/G.711
15.	Pre/Post Alarm buffer	Yes
16.	ID/Password	Multi-level user ID/Password
17.	Encryption	HTTP(SSL/TLS)/HTTPS
18.	Video Authentication	For video authentication, classic watermarks/digital signature must be embedded in Video Stream along with name, time, date stamped which cannot be tampered
19.	Physical Layer	10/100 base Tx Ethernet
20.	Protocol	Minimum TCP, HTTP, RTSP, SNMP, IPV4, IPv6, NTP,DHCP, RTP, SMTP, UDP, UPnP, ICMP, IGMP, SSL, QoS, 802.1x, DNS, DDNS, HTTPS
21.	IP Support	Static/dynamic or both
22.	Remote Administration	Remote configuration and status using web based tool
23.	System Update	Remote system update over Network using web client
24.	PC Client	PC application client with a channel recording feature support
25.	Web Client	Viewer through HTTP (min.) System Configuration Setting/ Streaming
26.	Simultaneous Connection	5 users or more
27.	Lens Type	4.3-129 mm/4.5-135 mm/4.8-144mm(X30), F1.6 or better motorised Varifocal, Autofocus, Autoiris
28.	Dynamic Noise Reduction	3D
29.	Auto Exposure	Automatic Level Control/Electronic Level Control
30.	Intelligent Defog	Yes
31.	Illumination	Color: 0.003 lux, F1.6 or better B/W: 0.04 lux, F1.6 or better Inbuilt IR (150 mtrs. or better)
32.	Signal Process	Digital Signal Process
33.	Motion Detection Zones/ privacy zones	3 or higher
34.	Auto Gain Control	Yes
35.	Back Light Compensation	Yes
36.	High Light Compensation	Yes
37.	Electronic Shutter	1/10000s to 1 s or better
38.	White Balance	Yes

39.	Wide Dynamic Range	min 120 db (Sensor based)
40.	Day and Night	Yes (as per minimum illumination)
41.	Operating Temperature	0 °C to 60 °C Humidity 20-80% RH (non-condensing)
42.	Power Source	Suitable adaptor shall be supplied to make the equipment work on 230V ±10%, 50Hz and Power over Ethernet (POE 802.3 at)
43.	Internet protocol	IPv4 and IPv6
44.	Housing	Poly Carbonate/ Aluminium Construction with IP-67 Including pole mount/wall mount accessories , Power and data cables
45.	Anti-Vandalism rating	IK10
46.	Panning Range and Speed	0 deg to 360 deg, 0.2°/s-160°/s
47.	Tilting Range and Speed	180°, 0.2°/s-120°/s
48.	Presets	100 presets or higher
49.	Edge based video content Analytics	Video motion detection and Active tampering alarm
50.	Accessories	All required accessories at site for installation of camera to be provided like CAT 6 patch cord (7 mtr.)Pole Mount, Corner brackets, Connector kit, screws, required power cable etc.
51.	Warranty	The product shall carry a 5-year onsite comprehensive warranty and Maintenance Support, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.

Note:

- Any deviation/ alteration/ modification in the specification will not be considered valid.
- All hardware/ software should be complying with the updated guidelines, required certification mandated by MeitY, GoI and STQC certification.

3. NVR (POE)(4 port): *(estimated cost Rs. 20,000 (including GST))*

SN	Parameter	Generic Technical Specification
1.	Integration with Existing VMS	SI has to ensure integration with existing VMS
2.	**VIDEO**	
3.	Video Inputs	4 IP Cameras with min.1080p

4.	Camera Support	ONVIF Compliant
5.	Video Output	1HDMI,1VGAOUT
6.	Display Resolution	Min.1920×1080,1600x1200,1280×720
7.	Display Speed	4 channel real-time live
8.	Digital Zoom	Yes
9.	**RECORDING**	
10.	Video Compression	H.264, H.265
11.	Throughput	Incoming: Min.80Mbps Outgoing: Min.80Mbps
12.	Recording Resolutions	1920x1080,1280x720
13.	Trigger events	Alarmin, Audio Detection, Motion Detection, Trip-zone, Tampering, Video loss
14.	**PLAYBACK**	
15.	Performance	Up to 4 channel synchronous playback
16.	Digital Zoom	Yes
17.	**STORAGE**	
18.	Internal	SATA HDD x 2 (supplied with 4TB each HDD)
19.	**NETWORK**	
20.	Connection	4 xRJ-45 independent 100Mbps PoE (Should have sufficient power to power up & function one PTZ, along with 3 other cameras (Dome/BOX/Bullet) populated on same NVR) interface
21.	Internet protocol	IPv4andIPv6
22.	Remote Data Export	Clip Copy, AVI, JPG
23.	**AUDIO**	
24.	Audio Communication	Two way
25.	Audio In/out	Local (NVR):1RCA/ 1RCA
26.	Audio Compression Support	Yes
27.	**PORTS**	
28.	Alarm In	Local (NVR):4TTL
29.	Alarm out	Local(NVR): 1Relayout/IP camera
30.	USB	Min. USB 2.0/3.0
31.	**GENERAL**	
32.	Certification	FCC, UL/CE, BIS
33.	Chassis	Rack mountable
34.	Warranty	The product shall carry a 5-year onsite comprehensive warranty and Maintenance Support, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official

		letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.

Note:

- Any deviation/ alteration/ modification in the specification will not be considered valid.
- All hardware/ software should be complying with the updated guidelines, required certification mandated by MeitY, GoI and STQC certification.

4. Access Switch (4 port): *(estimated cost Rs. 37, 000 (including GST))*

SN	Parameter	Generic Technical Specification
1.	Type	Managed Outdoor Industrial grade switch
2.	Total Ports	Four Ethernet 10/100/1000 POE+ ports and 2 fiber port uplinks (populated SFPs) (Should have sufficient power to power up & function one PTZ, along with 3 other cameras (Dome/BOX/Bullet) populated on same switch)
3.	Ring Support	Switch Should support the Ring connectivity in uplink port(IEEE802.17/Equivalent),LLDP/Equivalent, UDLD/Equivalent
4.	PoE Standard	IEEE 802.3at on each10/100/1000 ports or better
5.	PoE Power per port	Sufficient to operate the CCTV cameras connected
6.	Protocols	• Support802.1QVLAN • HTTPS/SSH • DHCP support, DHCP snooping • SNMP Management • IGMP Support • IPv6, IPv4 protocol
7.	Multi Cast Support	MLD snooping(v1andv2) and IGMP(v2 andv3)
8.	Topology Selection	Bidder has to decide switch model type, be it L2or L3 as per their design principle. However, bidder has to make sure that spanning tree related loops are prevented at each and every layer.
9.	Security Features	• Dynamic ARP Inspection • IP Source Guard • ARP Snooping/Spoofing • Access Control List
10.	Remote Management	Shall Support remote management through SNMP traps
11.	Access Control	• Support port security • Support 802.1x(Port based network access control). • Support for MAC filtering.
12.	Industrial Rating	IP 30 and NEMA TS-2, VAPT
13.	EN/IEC Standard Ratings	EN/IEC60068-2-27, ESDEN/IEC61000-4-2, EN/IEC61000-4-3, EN/IEC61000-4-4, EN/IEC61000-4-6, EN/IEC61000-4-8,

		EN/IEC60068-2-6, RoHS and EMC as FCC Part 15, Class A, IPV6 logo ready.
14.	Surge Protection	Yes, EN/IEC61000-4-5
15.	Operating Temperature	-10 to70 degrees C or better
16.	Certification to be provided by bidder	UL, CE and NEMATS-2, BIS
17.	Cables	All necessary data and power cable sand industrial grade power adapter to be provided
18.	Warranty	The product shall carry a 5-year onsite comprehensive warranty, verifiable through the OEM. The standard product warranty shall be for a minimum of 1 year which shall be verifiable on the OEM's official website. For individual item, OEM warranty verification may be established through the OEM's official website/ an official letter issued on the OEM's letterhead/ confirmation from an OEM-authorised service centre.

Note:

- Any deviation/ alteration/ modification in the specification will not be considered valid.
- All hardware/ software should be complying with the updated guidelines, required certification mandated by MeitY, GoI and STQC certification.

5. Laying of armoured cable and end termination: *(estimated cost Rs. 300 (including GST))*

S N	Description
1.	P/Laying P.V.C. / XLPE insulated & P.V.C. sheathed cable of 1.1 KV grade with aluminum conductor of IS:1554 P-I / IS :7098 P - I of Group 1 of approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand, IInd class bricks covering, refilling earth, compaction of earth, making necessary connection, testing etc. as required of size. Trench: Open trench / Trench excavation in C.C. flooring or Tar road as per site requirement
2.	Termination: Supplying and making end termination with heavy duty single compression brass gland SIBG type, heavy duty Copper lugs duly crimped with crimping tool, PVC tape etc for following size of Armoured PVC insulated & PVC sheathed/ XLPE aluminium conductor cable of 1100 volt grade as required of size.
3.	4 Sq.mm 3 Core armoured cable
4.	Warranty: 5 years comprehensive onsite warranty

Note:

- Any deviation/ alteration/ modification in the specification will not be considered valid.
- All hardware/ software should be complying with the updated guidelines, required certification mandated by MeitY, GoI and STQC certification.

6. New Pole (Height-8mtrs above cement concrete foundation) for Edge Equipments *(estimated cost Rs. 25,000 (including GST))*

S N	Description
1.	Pole shall have options to host and install security cameras, sensors and detectors.
2.	Pole shall be able to host at least 4 cameras/ sensors on top having a total weight up to maximum 30Kg.
3.	Pole shall be able to host solar pane (vertically mounted) having total weight maximum of 90Kg.
4.	Designed in accordance with ISS publication: Indian Standard specification For Structure Support Highway Signs, Luminaries and Traffic signals.
5.	Suitable size Outdoor Junction Box shall be provided for electric meter to be installed at pole
6.	AC to DC converter shall be provided with pole
7.	Power sockets(5/15A) as per requirement, subject to minimum of two sockets.
8.	Suitable size earth termination shall be provided to connect with the proposed earth pit. Pipe earthing of each pole as per IS Standard. Pipe Earthing as per IS:3043 with perforated 3.0 Mtr. Long, 40 mm dia. ' B 'class G.I. Pipe including all accessories like nut, bolts, reducer, nipple, wire meshed funnel, and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size 300mm x 300 mm and embodying the pipe complete with alternate layers salt and coke/charcoal, testing of earth resistance as required. The Pipe earth electrode should be connected to pole mounting the required camera with 8SWG GI wire.
9.	Pole shall have Camouflaged Junction Box with locking arrangement. JB size 300H x 400W x 200D with all round welded construction with trough design to meet an IP rating of IP66, Front panel with screw with PU Foam in place gasketing, bottom with out gland plate with 4 holes at the rear wall for wall mounting provision with 1 number of fixed mounting plate at the inner rear wall.(with earth Stud). There should be enough space inside enclosure to hold minimum 1 no. of 4 port Access Switch, PSU, Fibre and Power termination arrangement etc. DIN Rail Mount MCB As required, Power Termination Arrangement with Surge Protector, Wall mounting Bracket (Set of 4) or Pole, Din Rail 300MM Long, SS Cable Gland M25 SS Cable Gland M50, Fiber Termination Arrangement
10.	Supply and erection of GI Octagonal of following length and dimension as per table given below with base plate on the cement concrete foundation of M-20 grade (1:1.5:3) with the help of anchor bolts of grade 6.8 (IS: 1367PIII).
11.	The pole shall have a weatherproof flush door and locking arrangements.
12.	The complete work shall be supervised and certified by the manufacturers for

Top Dia (In mm)	70
Bottom Dia. (In mm)	135
Sheet Thickness (In mm)	3
Base Plate (In mm)	225 x 225 x 16
Foundation Bolt Size No. x Dia (In mm)	4x20
PCD in mm	210
Bolt Length (In mm)	750
Foundation Size (in mm)	450 x 450 x 1550

	satisfactory supply, erection, testing and commissioning.
13.	Octagonal MS Poles made of S-355JO grade steel , folded length wise to obtained Octagonal shape, having single longitudinal seam weld and hot dipped galvanized internally & externally in accordance with IS2629 and ISO1461
14.	Supply, Erection and Fixing of hot dipped galvanized Overhang (48.3X 3.25mm) with cap (400x 88.9/114.3x 3.25mm) over the existing poles Options: Single Arm Overhang Double Arm Overhang
15.	Warranty: 5 years Comprehensive onsite OEM Warranty
Note: • Any deviation/ alteration/ modification in the specification will not be considered valid. • All hardware/ software should be complying with the updated guidelines, required certification mandated by MeitY, GoI and STQC certification.	

Category 31. Networking

1. 8 port L2 managed switch (estimated cost Rs. 10,000 (Including GST))

S. N.	Specification
1	Shall be 1RU, 19" Rack Mountable fully managed switch
2	8 RJ-45 autosensing 10/100/1000 ports with 2 uplink SFP ports (1G).
3	32 MB flash, 128 MB DRAM
4	Shall have switching capacity of 20 Gbps for providing non-blocking performance on all Gigabit ports
5	Shall have up to 14 million pps switching throughput to achieve wire-speed forwarding on all Gigabit ports
6	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol, IEEE 802.1s Multiple Spanning Tree Protocol, EEE 802.1AB Link Layer Discovery Protocol (LLDP), IEEE 802.1Q VLAN tagging for Ethernet frames.
7	MAC address table size of 8000 entries
8	Shall support Jumbo frames (9K or higher) to improve the performance of large data transfers
9	Internet Group Management Protocol (IGMP), Multicast Listener Discovery (MLD) snooping, Network Time Protocol (NTP) or equivalent support
10	IPv6 host and Dual stack (IPv4/IPv6) support to provide transition mechanism from IPv4 to IPv6
11	Access Control Lists for traffic filtering
12	QoS (quality of service) IEEE 802.1P for traffic prioritization. Minimum 8 queues per port.
13	IEEE 802.1x to provide port-based user authentication with multiple 802.1x authentication sessions per port
14	Concurrent IEEE 802.1X and Web or MAC authentication schemes per port
15	Port security to allow access only to specified MAC addresses
16	MAC address lockout to prevent particular configured MAC addresses from connecting to the network

17	Configuration through the CLI / console, Telnet/SSH and browser-based management GUI (SSL)
18	SNMPv1, v2c, and v3 and Remote monitoring, (RMON) support
19	RADIUS/TACACS+ for switch security access administration
20	Shall support IEEE 802.3az Energy-efficient Ethernet (EEE) to reduce power consumption
21	Operating temperature of 0°C to 50°C and Humidity 0% to 95% relative humidity
22	Certifications: CE, FCC, UL, EN 55032/EN 55024, EN 61000-3-2, IEC 61000-4-2, EN 61000-3-3, IEC 61000 4 3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, EN 62368-1, CISPR 22, FCC Part 15, ICES 003, IEC 63000, UL 60950-1, and CAN/CSA C22.2 No. 60950-1-07. MTCTE/TEC-ER.
23	Should supplied with the all the necessary components like Power cord, Rack-mount bracket, Installation Guide, etc. and necessary software image file to fulfil all above mention feature set from day 1.
24	Switch should come with at least Limited Lifetime Warranty (LLW)

2. 8 port L2 managed PoE+ switch (estimated cost Rs. 25,000 (Including GST))

S. No.	Specification
1	Shall be 1RU, 19" Rack Mountable fully managed PoE+ switch
2	8 RJ-45 autosensing 10/100/1000 ports with 2 uplink SFP ports (1G).
3	32 MB flash, 128 MB DRAM
4	The switch should have at least 100 watt PoE power budget
5	Shall have switching capacity of 20 Gbps for providing non-blocking performance on all Gigabit ports
6	Shall have up to 14 million pps switching throughput to achieve wire-speed forwarding on all Gigabit ports
7	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol, IEEE 802.1s Multiple Spanning Tree Protocol, EEE 802.1AB Link Layer Discovery Protocol (LLDP), IEEE 802.1Q VLAN tagging for Ethernet frames.
8	MAC address table size of 8000 entries
9	Shall support Jumbo frames (9K or higher) to improve the performance of large data transfers
10	Internet Group Management Protocol (IGMP), Multicast Listener Discovery (MLD) snooping, Network Time Protocol (NTP) or equivalent support
11	IPv6 host and Dual stack (IPv4/IPv6) support to provide transition mechanism from IPv4 to IPv6
12	Access Control Lists for traffic filtering
13	QoS (quality of service) IEEE 802.1P for traffic prioritization. Minimum 8 queues per port.
14	IEEE 802.1x to provide port-based user authentication with multiple 802.1x authentication sessions per port
15	Concurrent IEEE 802.1X and Web or MAC authentication schemes per port
16	Port security to allow access only to specified MAC addresses
17	MAC address lockout to prevent particular configured MAC addresses from connecting to the network

18	Configuration through the CLI / console, Telnet/SSH and browser-based management GUI (SSL)
19	SNMPv1, v2c, and v3 and Remote monitoring, (RMON) support
20	RADIUS/TACACS+ for switch security access administration
21	Shall support IEEE 802.3az Energy-efficient Ethernet (EEE) to reduce power consumption
22	Operating temperature of 0°C to 50°C and Humidity 0% to 95% relative humidity
23	Certifications: CE, FCC, UL, EN 55032/EN 55024, EN 61000-3-2, IEC 61000-4-2, EN 61000-3-3, IEC 61000 4 3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, EN 62368-1, CISPR 22, FCC Part 15, ICES 003, IEC 63000, UL 60950-1, and CAN/CSA C22.2 No. 60950-1-07. MTCTE/TEC-ER.
24	Should supplied with the all the necessary components like Power cord, Rack-mount bracket, Installation Guide, etc. and necessary software image file to fulfil all above mention feature set from day 1.
25	Switch should come with at least Limited Lifetime Warranty (LLW)

3. 24 port L2 managed switch(estimated cost Rs. 20,000 (Including GST))

S. No.	Specifications
1	Shall be 1RU, 19" Rack Mountable fully managed switch
2	24 RJ-45 autosensing 10/100/1000 ports with 4 uplink SFP ports (10G)
3	512 MB flash, 512 MB DRAM
4	Shall have switching capacity of 56 Gbps for providing non-blocking performance on all Gigabit ports
5	Shall have up to 41 million pps switching throughput to achieve wire-speed forwarding on all Gigabit ports
6	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol, IEEE 802.1s Multiple Spanning Tree Protocol, EEE 802.1AB Link Layer Discovery Protocol (LLDP), IEEE 802.1Q VLAN tagging for Ethernet frames.
7	MAC address table size of 8000 entries
8	Shall support Jumbo frames (9K or higher) to improve the performance of large data transfers
9	Internet Group Management Protocol (IGMP), Multicast Listener Discovery (MLD) snooping, Network Time Protocol (NTP) or equivalent support
10	IPv6 host and Dual stack (IPv4/IPv6) support to provide transition mechanism from IPv4 to IPv6
11	Access Control Lists for traffic filtering
12	QoS (quality of service) IEEE 802.1P for traffic prioritization. Minimum 8 queues per port.
13	IEEE 802.1x to provide port-based user authentication with multiple 802.1x authentication sessions per port
14	Concurrent IEEE 802.1X and Web or MAC authentication schemes per port
15	Port security to allow access only to specified MAC addresses
16	MAC address lockout to prevent particular configured MAC addresses from connecting to the network

17	Configuration through the CLI / console, Telnet/SSH and browser-based management GUI (SSL)
18	SNMPv1, v2c, and v3 and Remote monitoring, (RMON) support
19	RADIUS/TACACS+ for switch security access administration
20	Shall support IEEE 802.3az Energy-efficient Ethernet (EEE) to reduce power consumption
21	Operating temperature of 0°C to 50°C and Humidity 0% to 95% relative humidity
22	Certifications: CE, UL, EN 55032/EN 55024, EN 61000-3-2, IEC 61000-4-2, EN 61000-3-3, IEC 61000 4 3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, EN 62368-1, CISPR 22, FCC Part 15, ICES 003, IEC 63000, UL 60950-1, and CAN/CSA C22.2 No. 60950-1-07. MTCTE/TEC-ER.
23	Should supplied with the all the necessary components like Power cord, Rack-mount bracket, Installation Guide, etc. and necessary software image file to fulfil all above mention feature set from day 1.
24	Switch should come with at least Limited Lifetime Warranty (LLW)

4. 24 port L2 managed PoE+ switch (estimated cost Rs. 50,000 (Including GST))

S. No.	Specifications
1	Shall be 1RU, 19" Rack Mountable fully managed PoE+ switch
2	24 RJ-45 autosensing 10/100/1000 ports with 4 uplink SFP ports (10G)
3	512 MB flash, 512 MB DRAM
4	The switch should have at least 190 watt PoE power budget
5	Shall have switching capacity of 56 Gbps for providing non-blocking performance on all Gigabit ports
6	Shall have up to 41 million pps switching throughput to achieve wire-speed forwarding on all Gigabit ports
7	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol, IEEE 802.1s Multiple Spanning Tree Protocol, EEE 802.1AB Link Layer Discovery Protocol (LLDP), IEEE 802.1Q VLAN tagging for Ethernet frames.
8	MAC address table size of 8000 entries
9	Shall support Jumbo frames (9K or higher) to improve the performance of large data transfers
10	Internet Group Management Protocol (IGMP), Multicast Listener Discovery (MLD) snooping, Network Time Protocol (NTP) or equivalent support
11	IPv6 host and Dual stack (IPv4/IPv6) support to provide transition mechanism from IPv4 to IPv6
12	Access Control Lists for traffic filtering
13	QoS (quality of service) IEEE 802.1P for traffic prioritization. Minimum 8 queues per port.
14	IEEE 802.1x to provide port-based user authentication with multiple 802.1x authentication sessions per port
15	Concurrent IEEE 802.1X and Web or MAC authentication schemes per port
16	Port security to allow access only to specified MAC addresses
17	MAC address lockout to prevent particular configured MAC addresses from connecting to the network

18	Configuration through the CLI/ console, Telnet/SSH and browser-based management GUI (SSL)
19	SNMPv1, v2c, and v3 and Remote monitoring, (RMON) support
20	RADIUS/TACACS+ for switch security access administration
21	Shall support IEEE 802.3az Energy-efficient Ethernet (EEE) to reduce power consumption
22	Operating temperature of 0°C to 50°C and Humidity 0% to 95% relative humidity
23	Certifications: CE, UL, EN 55032/EN 55024, EN 61000-3-2, IEC 61000-4-2, EN 61000-3-3, IEC 61000 4 3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, EN 62368-1, CISPR 22, FCC Part 15, ICES 003, IEC 63000, UL 60950-1, and CAN/CSA C22.2 No. 60950-1-07. MTCTE/TEC-ER.
24	Should supplied with the all the necessary components like Power cord, Rack-mount bracket, Installation Guide, etc. and necessary software image file to fulfil all above mention feature set from day 1.
25	Switch should come with at least Limited Lifetime Warranty (LLW)

5. 6U Network Rack (estimated cost Rs. 8,000 (Including GST))

Sr. No.	Description of requirement
1	Aluminum/Steel 6U Height with Single Section Wall mount rack with 19" mounting rails.
2	One horizontal Wire Managers
3	Power Distribution Unit - (5 points – 5Amp sockets and 1 points – 15Amps sockets) power distribution Indian round pin
4	Perforated metallic/glass door in front with lock and minimum 1 fan
5	550mm * 600 mm (Width x Depth)
6	Rack should be from ISO 9001:2008 & ISO14001:2004 Certified Company & UL Listed.
7	Rack should Conforms to DIN 41494 or Equivalent EIA /ISO / EN Standard.

6. 12U Network Rack (estimated cost Rs. 12,000 (Including GST))

Sr. No.	Description of requirement
1	Aluminum/Steel 12U Height with Single Section Wall mount rack with 19" mounting rails.
2	One horizontal Wire Managers
3	Power Distribution Unit - (5 points – 5Amp sockets and 1 points – 15Amps sockets) power distribution Indian round pin
4	Perforated metallic/glass door in front with lock and minimum 1 fan
5	550mm * 600 mm (Width x Depth)
6	Rack should be from ISO 9001:2008 & ISO14001:2004 Certified Company & UL Listed.
7	Rack should Conforms to DIN 41494 or Equivalent EIA /ISO / EN Standard.

7. Cat6 Cable (estimated cost Rs. 30 per meter (Including GST))

S. No.	Specifications
1	Unshielded Twisted Pair, Category 6, TIA / EIA 568.C.2, ISO/IEC 11801, 23 AWG solid bare copper conductor
2	Polyethylene insulation/LSZH
3	0 Deg. C to +60 Deg. C Operating temperature, Frequency tested up to Minimum 250 MHz
4	Box of 305 meters Packing, 50ns MAX. Delay Skew
5	Attenuation (dB/100m) - 36 MAX. at 250MHz
	Laying Charges
6	Laying in ISI Marked PVC Pipe / casing with required "L" shape joints with clips and clamps

8. 1 meter Cat6 Patch Chord (estimated cost Rs. 175 (Including GST))

S. No.	Specifications
1	1 meter Factory crimped, Unshielded Twisted Pair, Category 6, TIA / EIA 568.C.2 (UL/ETL verified), 24 AWG solid bare copper conductor
2	Polyethylene insulation/LSZH
3	0 Deg. C to +60 Deg. C Operating temperature

9. 3 meter Cat6 Patch Chord (estimated cost Rs. 300 (Including GST))

S. No.	Specifications
1	3 meter Factory crimped, Unshielded Twisted Pair, Category 6, TIA / EIA 568.C.2 (UL/ETL verified), 24 AWG solid bare copper conductor
2	Polyethylene insulation/LSZH
3	0 Deg. C to +60 Deg. C Operating temperature

10. 5 meter Cat6 Patch Chord (estimated cost Rs. 450 (Including GST))

S. No.	Specifications
1	5 meter Factory crimped, Unshielded Twisted Pair, Category 6, TIA / EIA 568.C.2 (UL/ETL verified), 24 AWG solid bare copper conductor
2	Polyethylene insulation/LSZH
3	0 Deg. C to +60 Deg. C Operating temperature

11. 10 meter Cat6 Patch Chord (estimated cost Rs. 800 (Including GST))

S. No.	Specifications
1	10 meter Factory crimped, Unshielded Twisted Pair, Category 6, TIA / EIA 568.C.2 (UL/ETL verified), 24 AWG solid bare copper conductor
2	Polyethylene insulation/LSZH
3	0 Deg. C to +60 Deg. C Operating temperature

12. Single Port Face Plate with Box (estimated cost Rs. 400 (Including GST))

S. No.	Specifications
1	Face plate single port with Back box.
2	Face Plate should have shutter to protect from dust.
3	It should have write on labels in transparent plastic window – supplied with plate
4	Face plate material: ABS with white color (UL 94)
5	Screw supplied with face plate.
6	Dimensions : 86 x 86 x 42mm (LxBxH)

13. Dual Port Face Plate with Box (estimated cost Rs. 700 (Including GST))

S. No.	Specifications
1	Face plate dual port with Back box.
2	Face Plate should have shutter to protect from dust.
3	It should have write on labels in transparent plastic window – supplied with plate
4	Face plate material: ABS with white color (UL 94)
5	Screw supplied with face plate.
6	Dimensions : 86 x 86 x 42mm(LxBxH)

14. Cat6 Keystone Jacks (estimated cost Rs. 200 (Including GST))

S. No.	Specifications
1	Category 6 keystone jacks are RJ45, 8 position 8 contact socket.
2	Suitable for 23-24 AWG stranded & solid wire.
3	Backward compatible with Category 5e, 5 & 3 cords & cables.
4	Compliance with ANSI/TIA/EIA 568 C.2 standard.
5	Shall be of a universal design supporting T568 A & B wiring.
6	Color of Keystone Jack: White
7	Housing made from UL 94V material.
8	Contact material phosphor bronze with nickel plated.
9	Finished with 50 micro-inch (microns) gold plated on plug contact area.
10	Current rating 1.5A.
11	Temperature -10° Celsius to 60° Celsius.
12	Life of Jack 750 cycles minimum (ISO/IEC 11801 / IEC 60603-7-4).

####End of Document####