## **Technical Specifications for Desktops**

| S.No. | Item  | Technical Specifications  |
|-------|---|---|
| 1.    | Quantity  | 15  |
| 2.    | Processor Type and Generation Intel   | Desktop Processor; 13 or higher   |
| 3.    | Number of Cores per processor   | 16 cores or higher  |
| 4.    | Processor Base Frequency (GHz)  | 2.1 or higher   |
| 5.    | Processor Max Turbo Frequency (GHz)   | 5.2 or higher   |
| 6.    | Processor Cache (MB)  | 30 or higher  |
| 7.    | Integrated Processor GPU based frequency  | 300 MHz or higher   |
| 8.    | Expansion Slots (PCIe x 1) (Number)   | 0 or higher   |
| 9.    | Expansion Slots (PCIe x 4) (Number)   | 2 or higher   |
| 10.   | Expansion Slots (PCIe x 16) (Number)  | 1 or higher   |
| 11.   | Graphics Type   | Dedicated   |
| 12.   | Number of Graphic Cards   | 1   |
| 13.   | Graphic Card Description  | 1x 12 GB GDDR6 GPU GeForce RTX 3060 with Non ECC                                |
| 14.   | Operating System (Factory Pre-Loaded)   | Windows 11 Professional   |
| 15.   | Recovery Image Media  | CD from the OEM / Stored in Partition of the Hard Disk / USB Drive from the OEM |
| 16.   | OS Certification  | Windows   |
| 17.   | RAM Type  | DDR5 or higher  |
| 18.   | RAM Speed (MHz)   | 4800 or higher  |
| 19.   | Type of Memory  | Non ECC   |
| 20.   | RAM Size (GB)   | 16 or more  |
| 21.   | Total Numbers of DIMM Slots Available   | 4 or higher   |
| 22.   | Number of DIMM Slots Populated  | 1   |
| 23.   | RAM Expandability up to using spare DIMM Slots (GB)                               | 128 or higher   |
| 24.   | Type of Storage   | M.2/SSD Dedicated to OS Loading   |
| 25.   | Solid State Drive   | 512 GB M.2/SSD NVMe or higher   |
| 26.   | Hard Disk Drive   | I TB SATA 7200 RPM 3.5" or I x2TB SSD of higher                                 |
| 27.   | No of Drive and Capacity of each drive  | 1, 1024GB or more   |
| 28.   | Total number of Internal Bays available for PCIe SSD                              | 1 or more   |
| 29.   | Number of Internal Bays populated with PCIe Drive                                 | 1 or more   |
| 30.   | Number of RAID Controller Ports   | 4 or higher   |
| 31.   | Speed of RAID Controller Ports (Gbps)   | 6 or higher   |
| 32.   | Number of Ethernet Ports  | 1   |
| 33.   | Wireless Connectivity   | Yes   |
| 34.   | If Yes, Type of Wireless Connectivity   | Wi-Fi 6 or higher   |
| 35.   | Bluetooth Connectivity  | Yes   |
| 36.   | If Yes, Version of Bluetooth Available  | 5.0 or higher   |
| 37.   | Networking Speed  | 1 GBPS or higher, 1 or higher Ethernet port                                     |
| 38.   | Front Peripherals: Number of USB Version 2 Point 0 Ports                          | 3 or higher   |
| 39.   | Front Peripherals:<br>Number of USB Version 3 point 0 / 3 point 1, Gen 1<br>Ports | 2 or higher   |
| 40.   | Front Peripherals:<br>Number of USB Version 3 point 1, Gen 2 Ports                | 4 or higher   |
| 41.   | Front Peripherals: Number of USB Type C Ports                                     | 1 or higher   |

|      | Audio Support   | 1 * Audio-in , 1* Audio-out               |
|------|---|---|
| 42.  | Number of HDMI Ports  | 1 or higher                               |
| 43.  | Number of DP Ports  | 2 or higher                               |
| 44.  | Display Availability  | Monitor                                   |
| 45.  | Display Size (cm)   | 54.61 cm of higher                        |
| 46.  | Display Type  | Non-touch with HDMI and VGA connectivity  |
| 47.  | Panel Type  | Flat                                      |
| 48.  | Panel Technology  | IPS                                       |
| 49.  | Display Resolution (Pixels)   | 1920x 1080                                |
| 50.  | TCO Compliance for Monitor  | TCO 9.0                                   |
| 51.  | Colour Gamut  | 72% NTSC                                  |
| 52.  | Monitor Stand   | Height Adjustable                         |
| 53.  | Maximum Power (Watts)   | 700                                       |
| 54.  | Minimum Power Efficiency (%)  | 90 or higher                              |
| 55.  | Power Management Unit   | Yes                                       |
| 56.  | Redundant Power Supply  | No  |
| 57.  | Mouse Connectivity, If available  | Yes                                       |
| 58.  | ype of Mouse, If available  | Optical Scroll                            |
| 59.  | Keyboard Connectivity, if available   | Wired                                     |
| 60.  | Type of Keyboard, if available  | Standard                                  |
| 61.  | Optical Drive   | DVD R/W                                   |
| 62.  | Number of External Bays   | 2   |
| 63.  | Security  | H/W Based                                 |
| 64.  | Availability of Bundled Software  | Yes                                       |
| 65.  |   | Artificial Intelligence Based Performance |
|      | Type of Bundled Software  | Improvement Software, if any              |
| 66.  | Minimum Operating Temperature (Degree C)                                    | 5 or 10                                   |
| 67.  | Maximum Operating Temperature (Degree C)                                    | 35  |
| 68.  | Minimum Operating Humidity (%RH)  | 10 or 20                                  |
| 69.  | Maximum Operating Humidity (%RH)  | 85  |
| 70.  | Monitor, Keyboard, Mouse of Same OEM  | Yes                                       |
| 71.  | Malicious code certificate duly signed by OEM of quoted hardware            | Yes                                       |
| 72.  | Service central list to be submitted by bidder                              | Yes                                       |
| 73.  | Declaration from OEM for OEM warranty as per tender terms                   | Yes                                       |
| 74.  | Declaration from OEM for genuine Operating System from hardware OEM factory | Yes                                       |
| 75.  | Compliance letter from OEM on their letterhead                              | Yes                                       |
| 76.  | OEM must have an online system hardware                                     | Yes                                       |
|      | diagonsitics facility. Link/web address to be submitted                     |   |
|      | along with the technical bid. Alos, OEM must have the                       |   |
|      | facility to download updates of preinstalled software,                      |   |
| - 62 | devices, drivers, firmware, on its website. Link/web                        | 4   |
|      | address to be submitted along with the technical bid                        |   |
| 77.  | Quoted product should be EPEAT gold India Certified                         | Yes                                       |
| 78.  | Power Supply efficiency should be 400W with 90%                             | Yes                                       |
|      | average efficiency or better for the quoted product.                        |   |
|      | Declaration in this regard from OEM is required to be submitted.            |   |
| 79.  | Quoted desktops should be certified for the Required                        | Yes                                       |
|      | operating system. Hardware OEM declaration along                            |   |
|      | with Hardware certification report to be submitted.                         |   |

| 80. | Declaration from OEM for a quoted product not obsolete inb the market at the time of bid submission and has at least 3 years residual support. | Yes   |
|-----|--|---|
| 81. | Ink signed MAF required.   | Yes   |
| 82. | All systems should have Standard Office suite LTSC 2021 or later for the Education/ Academic version installed.                                | Yes   |
| 83. | On Site OEM Warranty (Year)  | 3 or more   |
| 84. | Delivery   | Delivery and Installation at Department of AM, DIAT Pune 411025 |