

A. Technical Specification				
Item No.	Product Name	Product Specifications	Reference Picture	Quantity
	Laptop	Class: high performance / A6 capable mobile workstation notebook Model: MSI VECTOR 16 HX AI A20W0 or equivalent OS: Windows 11 Pro 64-bit or later, genuine license included CPU (minimum): Performance equivalent to Intel Core Ultra 9 275HX or newer (or equivalent AMD high performance mobile processor), ≥ 20 cores Security: TPM 2.0 Screen Size / Display (minimum): 16" QHD+ (2560×1600) 16:10, refresh rate ≥ 165 Hz, DCI-P3 ≥ 85%, thin bezel wide-viewing angle panel GPU (minimum): Dedicated GPU equivalent to NVIDIA GeForce RTX 5060 Laptop GPU or better Video Memory (minimum): 16 GB (GDDR7 or equivalent) VRAM Keyboard: Backlit keyboard, anti-ghosting, ≥ 99 keys, Arabic and English layout Speaker (minimum): Stereo speakers, total output ≥ 4 W Memory/SRAM (minimum): 32 GB DDR5, ≥ 5600 MHz HDD Capacity (minimum): ≥ 1 TB PCIe NVMe SSD LAN (minimum): Gigabit LAN (2.5 Gbps) WLAN (minimum): Wi-Fi 7 (802.11be) or newer Bluetooth (minimum): BT 5.3 or newer Card Reader: SD card reader (UHS-II or better) Webcam: FHD camera with IR (Windows Hello) and physical/electronic privacy shutter USB (minimum): ≥ 2x USB-A 3.2 Gen 2 ≥ 2x USB4/Thunderbolt-class ports supporting DisplayPort and Power Delivery Video Port: 1x external video output (HDMI 2.1 or DisplayPort, to be stated by vendor) AC Power Adapter (minimum): ≥ 300 W, input 100–240 VAC universal Battery Pack (minimum): Rated capacity ≥ 80 Wh, Li-ion		3
2	Docking Station	Model: Dell Thunderbolt Dock WD22TB or equivalent Product Type: Universal Thunderbolt docking station, compatible with the tendered laptop (MSI Vector 16 HX AI A20W0 or equivalent) and other Thunderbolt 4/USB4-compliant notebooks Host Connector (minimum): 1x Thunderbolt 4 (backward compatible with Thunderbolt 3 and USB4) Power Delivery to Host Laptop (minimum): ≥ 130 W USB Power Delivery, compliant with USB-PD standard Display Outputs (minimum): 2x DisplayPort 1.4 (20-pin) 1x HDMI 2.0 (28-pin) 1x USB-C port supporting DisplayPort 1.4 Alt Mode Data/USB Ports (minimum): 2x USB-A 3.2 Gen 1 1x USB-C 3.2 Gen 1 1x USB-A 3.2 Gen 1 with charging support (PowerShare or equivalent) 1x additional Thunderbolt 4 port (downstream, for daisy-chaining or additional peripherals) Network (minimum): 1x Gigabit Ethernet (RJ-45), ≥ 1000 Mbps Standards Compliance: Thunderbolt 4 / USB4 if certified		3
3	Combo keyboard mouse	Keyboard Layout language: English & Arabic Connection: wired cable USB Spill-resistant design offered under limited conditions (maximum of 60 ml liquid spillage). Do not immerse the keyboard in liquid. Adjustable keyboard height 50-Key Number pad 8-Function: Play/Pause, Mute, Volume down, Volume up, Internet home, Launch default email application, PC sleep, Calculator launch Up to 5 custom keycodes (includes number lock key) Key type: deep-profile keys Mouse Sensor technology: Optical tracking Number of buttons: 3 (Left/Right click, Middle click) Scrolling: free-tilt Scroll Wheel: Yes, optical 3-year limited hardware warranty minimum		3
4	Monitor	Model: MSU Dell P2729U or equivalent Display Size: minimum 27" Panel Technology: IPS (in-Plane Switching) with W-LED backlight Native Resolution: 2560 × 1600 (1600 Hx1600 V) HD, 16:9 aspect ratio Brightness: minimum 300 cd/m² Viewing Angle: 178° horizontal / 138° vertical Video inputs (minimum): 1x HDMI 1.4 (HDCP 1.4), supports up to FHD @ 100 Hz 1x DisplayPort 1.2 (HDCP 1.4) 1x VGA USB Ports (minimum): 1x USB 3.2 Gen1 Type-A upstream 2x USB 3.2 Gen1 Type-A downstream 1x Quick-access USB 3.2 Gen1 Type-A downstream 1x USB-C downstream (USB 3.2 Gen1) with up to 15 W power delivery Stand Adjustments: Height: approx. 150 mm (+/- 10 mm) Tilt: approx. -2° to +12° Swivel: approx. -45° to +45° Pivot: approx. -90° to +90° Power Consumption: Operating: up to 14 W Typical On Mode: 15.8 W Standby / Off Mode: 0.3 W Warranty: 3-year		3
5	Offline UPS	Capacity (minimum): 2000 VA / 1200 W Input (minimum): - Voltage: 220–240 VAC - Frequency: 50/60 Hz auto-sensing Output (minimum): - Voltage: 220–240 VAC ±10% Transfer Time (minimum): ≤ 10 ms Battery (minimum): • Extended-life and maintenance-free • Typical backup time: ≥ 10 minutes at 50% load Indicators / Alarms (minimum): • LED indicators for power, battery, and fault status • Audible alarms for low battery and overload Protection (minimum): • Short-circuit protection • Overload protection Warranty: Minimum 3-year for UPS6 months for batteries		3
6	Webcam	Model: HD Webcam Logitech C922 Pro or equivalent Max Resolution (minimum): • 1080p @ 30 fps • 720p @ 60 fps Camera Sensor (minimum): 3 Megapixels Focus Type: Autofocus Lens Type: Glass Microphone (minimum): Integrated stereo microphones Field of View (minimum): Diagonal field of view (FoV) 78° Connection Interface: USB 2.0 or higher (plug-and-play, no drivers required) Warranty: Minimum 1-year		3
7	Multi-plug	at least 4-in-put		3
8	Digital Smart Board / Display Screen / monitor	Product Specifications – Digital Smart Board / Interactive Display Screen (75") Model: Aetron Interactive Panel – Nation Series, 75-inch, or equivalent Screen Size (minimum): 75 inches, measured diagonally Resolution (minimum): 4K Ultra HD, 3840 × 2160 pixels Aspect Ratio: 16:9 Panel Type: Di-LED or equivalent commercial-grade panel, rated for extended daily operation (≥ 10 hours/day duty cycle, vendor to confirm) Glass/Surface: Heat tempered, anti-glare glass Brightness (minimum): ≥ 350 cd/m² Contrast Ratio (minimum): ≥ 1200:1 Response Time (maximum): ≤ 8 ms Refresh Rate (minimum): 60 Hz Touch Technology: Infrared (IR) Touch Points (minimum): ≥ 10 simultaneous touch points Touch Response Time (maximum): ≤ 10 ms, with high positional accuracy (vendor to declare accuracy in mm) Built-in Operating System (minimum): Android-based smart OS, RAM ≥ 4 GB, internal storage ≥ 32 GB Optional PC Module: Support for an OPS (Open Pluggable Specification) slot for an optional Windows OPS computer module, sold separately or include Connectivity (minimum): HDMI inputs, LAN/Ethernet port, built-in Wi-Fi for wireless screen casting/sharing from authorized devices Mounting: Manual height-adjustable mobile stand with lockable wheels; stand compatible with the supplied 75-inch panel Installation: To be carried out by a qualified/certified installer, including configuration and functional testing Product Specifications – Mobile Stand Dimensions (approximate): 1775 × 1253 × 838 mm (vendor to confirm exact dimensions on datasheet) Net Weight (approximate): 60.8 kg Compatibility: Suitable for 75-inch interactive display panels, must safely support the actual weight of the supplied screen with adequate safety margin (vendor to declare maximum load rating) Casters: Lockable wheels for safe mobility and stable positioning during use Warranty (minimum): 1-year		3

All items should be delivered to: **Ins. Directorate of Water Resources in Babylon, Diwaniyah and Muthanna.**

C. Remarks And Condition

- All standard accessories for all offered items should be provided.
- A Technician must be delegated from supplier to install, and check after maintenance time.
- The supplier shall provide the items with all standard technical features and specifications and in full working conditions.
- Complete picture and data sheets with details and specifications must be provided with the tender submission by bidder for the needed items and QIZ will physically check and approve
- Shipping, loading, offloading and transportation are included
- Reference pictures are only to recognize and understand the items, not an indication for any model or brand