



SECTION VII TECHNICAL SPECIFICATIONS

ITB NO. 062-2023

INSTRUCTION: Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the provisions of ITB Clause 3.1(a) (ii) and/or GCC Clause 2.1(a)(ii).

ITEM	SPECIFICATION	STATEMENT OF COMPLIANCE
VEE23-01	COMPUTER SET	
	DESKTOP PC	
	<ul style="list-style-type: none">• Factor: Mid-tower w/ ATX 24 pins power supply unit• Processor: Intel Core i5, up to 4.6 Ghz (13th Generation)• Memory: 16 GB DDR4• Dual Storage: 256 SSD & 1 TB HDD• Graphics: UHD Graphics• Monitor: 22" LCD• USB optical keyboard and mouse w/ mousepad• Wi-Fi enabled, built-in wireless LAN 802.11 G/N card module, bluetooth wireless card• Gigabit LAN• Audio port• Internal speaker• Ports: 4 X USB 2.0 (Front/Rear), 2 x USB 3.0 (Front/Rear)• USB Type C, HDMI & VGA• w/ uninterrupted power supply (UPS) at least 650 VA• OS: Genuine MS Windows Professional 64 bit Pro licensed• Warranty: Three (3) years on parts and labor	
	HEADSET	
	<ul style="list-style-type: none">• (Jabra Evolve 20)• On-ear headband	

	<ul style="list-style-type: none"> • Connectivity: USB • Speaker sensitivity: 93.6 db SPL at 1 kHz • Speaker impedance: 32+/-4.8Ω at 1.0 kHz • Speaker max input power: Rated input 5 mW @ 0.4V, max input 10 mW @ 0.56 V • Microphone type: electret condenser (ECM) • Microphone frequency range: 100 Hz - 10 kHz @ 6 dB 	
	WEBCAM	
	<ul style="list-style-type: none"> • (A4 Tech PK-910H 1080P Full HD Webcam) • Resolution: Full HD 1080P, 1920 X 1080P • Lens type: Full HD Glass Lens • Viewing angle: 70 degrees • Focus type: Fixed Focus • Focus range: 60 cm and beyond • Built-in mic: Digital HD Mic • Frame rate: 30 fps • USB: USB 2.0 • Compatible with: Windows 7/8/10 or later • Compatible with social and video calling software of the above system 	
	ALL-IN-ONE TANK PRINTER	
	<ul style="list-style-type: none"> • Functions: Print, Scan, Copy, and ADF • Printer type: Inkjet Printer • Print Speed: 30 ipm (Fast Mode Mono A4) • 26 ipm (Fast Mode Color A4) • 17 ipm (ISO A4 Mono) • 16.5 ipm (ISO A4 Color) • Print resolution: FPOT: at least 1200 X 1600 • 2 Sided printing: YES • Copy resolution: Print: Max. 1200 X 2400 dpi, • Scan: Max. 1200 X 1600 dpi • Scanner Bit Depth (Color): 30-bit input, 24-bit output • Scanning resolution: Scan 1200 X 600 dpi ADF, • Scan 1200 X 2400 dpi scanner glass • Connectivity: Hi-speed USB 2.0 • LAN: Ethernet 10/100Base-TX Auto Negotiation • Wireless LAN: IEEE 802.11b/g/n (Infrastructure) • IEEE 802.11g/n (Wi-Fi Direct) • Complete cable accessories • Per unit must have additional 2 bottles of BLACK INK and 1 bottle of colored inks C/M/Y • Warranty: Two (2) years on parts and services 	
VEE23-02	NOTEBOOK PC	
	<ul style="list-style-type: none"> • Processor: Intel Core i5 12th generation or higher • Memory: 15 GB SD RAM • HD Graphics: Full HD • Screen size: 14" 	

	<ul style="list-style-type: none"> • Storage: at least 512 GB SSD • Wireless connectivity: IEEE 802.11 a/b/g/n/ac/ax • HD audio and microphone • Headphone jack • Bluetooth 5.0 • Webcam • Network (RJ-45) • USB Ports: at least three interfaces • Battery: Lithium Ion • OS: Windows 11 Home • Office suite: Microsoft Home and Student w/ complete accessories 	
VEE23-03	SMART TV	
	<ul style="list-style-type: none"> • Capable of: Netflix, Voice Control, Web Browser, Mobile Screen, Mirroring, Youtube, Bluetooth Connectivity, Dolby Digital • TV Resolution: 3840 x 1260 • Ports Input: USB, HDMI, RF in (Terrestrial/Cable Input), Composite in (AV), Ethernet (LAN) • Power Consumption: 150 – 250W • Input Voltage: 100-240V • Display Size: 55” 	
VEE23-04	EXPANDABLE POWER STATION	
	<ul style="list-style-type: none"> • Capacity: 2,048 W (51.2 V, 40 Ah) • Type: Life PO4 (Lithium Iron Phosphate) • Life cycles: 3,500+ cycles to 80% original capacity • Shelf-life: Recharge to 80% every 3-6 months • Management system: MPPT Controller, BMS, etc. • Output • AC Outlet: 4X 220V/20A, Outlet 1X 120V/30A NEMA TT-30 2200 W in total • Inverter type: Pure sine wave • Surge power: 4800 W • USB-C port 1: 1 X 100 W max. • USB-A port 2: 2 X 5V/3A USB-A 2 X 18 W USB-A • 12V DC Outlet: 1 X 12 V/10 A (Car outlet) 2 X 12 V/10 A DC 5521 • (5.5 mm outlet) *All regulated. • Wireless charging pad: 2 X 15 W Max. (for each) • Input • AC Adapter Input: 500 W • Solar input: 900 W Max., VOC 10-145 VDC, 15 A • Car input: 12/24 V from cigarette lighter port • Max. input: 1,400 W, with AC + Solar input • Recharge Time • AC Adapter (500 W): 5.5 - 6 hours • Solar (900 W): 3.5 - 3.5 hours (w/ prime sunshine, ideal orientation and low temperature) • 12 V/24 V car outlet (100 W/ 200 W): 10 or 20 hours 	

	<ul style="list-style-type: none"> • AC Adapter + Solar (1400 W): 2.0 - 2.5 hours (w/ prime sunshine, ideal orientation and low temperature) • Dual AC Adapters (1000 W): 3.0 - 3.5 hours • Warranty: 4 years 	
VEE23-05	MANAGED SWITCH 24-PORT	
	<p>Network Switches (24-port switch)</p> <p>A. Hardware specification</p> <ul style="list-style-type: none"> i. Must have 24 X 10/100/1000 POE + Ethernet ports ii. Must have at least 10/100/1000 4 SFP-based network module iii. Must support POE w/ a budget of 195 W, 30 W per port <p>B. Performance and scalability</p> <ul style="list-style-type: none"> i. Must have 256 MB of flash memory ii. Must have 512 MB of DRAM iii. Must have a throughput of at least 40 MPPS iv. Must have forwarding performance (64-byte packet size) of at least 28 Gbps v. Must have switching performance of at least 56 Gbps vi. Support up to 1023 active VLANs vii. Must support up to 4096 VLAN <p>C. Feature specification</p> <ul style="list-style-type: none"> i. Device management support with over-the-air access via bluetooth, Simple Network Management Protocol (SNMP), RJ-45 console access ii. Must have an automatic attempt to reactive link that is disabled because of network error iii. Must have the capability to be fully integrated into the existing network switches installed in the hospital <p>D. Must support fundamental switch features and must have the following standards:</p> <ul style="list-style-type: none"> i. IEEE 802.1D Spanning Tree Protocol ii. IEEE 802.1P CoS Prioritization iii. IEEE 802.1Q VLAN iv. IEEE 802.1S v. IEEE 802.1W vi. IEEE 802.1X vii. IEEE 802.1AB (LLDP) viii. IEEE 802.3ad <p>E. Must include maintenance support 8 X 5 X NBD (Next business day)</p> <p>F. Supports modern operating systems for the enterprise w/ support for model-driven programmability features</p>	

VEE23-06	WIRELESS ACCESS POINT	
	<p>Entry-level Wireless Access Point</p> <p>A. Radio specifications</p> <ul style="list-style-type: none"> i. Can support simultaneous device connections; radio 2 X 2:2 in both 2.4 GHz and 5 GHz ii. 2.4 GHz & 5 GHz dual-band WIDS/WIPS, spectrum analysis, and location analytics radio iii. 2.4 GHz bluetooth low energy (BLE) radio w/ beacon and BLE Scanning support iv. Supports multi-user, multiple-input, multiple-output technology (MU-MIMO) and utilizes Downlink Orthogonal Frequency Division Multiple Access (DL-OFDMA) multiplexing technique v. Supports 1024-QAM multiplexing vi. Supports maximal ratio combining (MRC) and beam forming vii. Data rate up to 286 Mbps on 2.4 GHz and 1.2 Gbps on 5 GHz viii. Supports 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac, 802.11ax standards ix. Has antenna gain of less than or equal to 4.5 dbi when using 2.4 GHz and less than or equal to 5 dpci when using 5 GHz x. Supports roaming and mobility; PMK, OKC, and 802.11r for fast Layer 2 roaming; distributed or centralized Layer 3 roaming xi. Supports bluetooth low energy xii. Supports mesh self-healing <p>B. Radio management</p> <ul style="list-style-type: none"> i. Must be seamlessly integrated with the existing cloud-based wireless controller of NCMH ii. Has the ability to change an AP's channel automatically within either the 2.4 or 5 GHz bands/channels when interference of contention conditions requireds. iii. Has the ability to scan other channels to be able to detect congested and free ones; to efficiently detect rogue WAPs iv. Has the ability to redistribute clients on different bands dynamically to balance associated clietns so that APs can provide better Wi-Fi service to clients with weaker signals v. Has the ability to spread associated clients within adjacent WAPs vi. Has the ability to divide Wi-Fi Signal into many time slots and make each client take turns sending and receiving data from the network to improve efficiency; it must have the ability to prioritize certain connections vii. Must support L2-L4 ACLs viii. Must have diagnostic tools for spectrum analysis 	

	<p>and network traffic</p> <p>ix. Analytics:</p> <p>x. Embedded location analytics reporting and device tracking</p> <p>xi. Global L7 traffic analytics reporting per network, per device, per application</p> <p>C. Networking</p> <p>i. 1 X 10/100/1000 BASE-T Ethernet (RJ45)</p> <p>ii. Supports 802.3af (PoE): 37-57 V</p> <p>iii. Must support rate limiting</p> <p>D. Security</p> <p>i. Supports WPA, WPA2, WPA3 - personal and enterprise</p> <p>ii. Supports AES and SAE encryption</p> <p>iii. Can be integrated and support L2 - L7 stateful firewall from cloud-based wireless controller</p> <p>iv. Flexible guest access w/ device isolation</p> <p>v. Enterprise Mobility Management (EMM); Mobile Device Management (MDM) Integration Supports EAP-TLS, EAP-TTLS, EAP-MSCHAPv2, EAP-SIM</p> <p>vi. Supports VLAN tagging/pooling and tunneling w/ IPsec VPN</p> <p>vii. Real-time WIDS/WIPS w/ alerting and automatic rogue WAP containment</p> <p>E. Wi-Fi Alliance Certifications</p> <p>i. Wi-Fi Certified 6</p> <p>ii. Wi-Fi Certified a, b, g, n, ac</p> <p>iii. WPA - Enterprise, Personal</p> <p>iv. WPA 2 - Enterprise, Personal</p> <p>v. WPA 3 - Enterprise, Personal</p> <p>F. Perpetual license is preferred if applicable, if not, ot must include a 5-year license; with a 1-year warranty and advance replacement included</p> <p>G. Must be operational even if the cloud management license is no longer active</p> <p>H. POE injectors must be included</p>	
<p>VEE23-07</p>	<p>HEAVY DUTY MONOCHROME MULTI-FUNCTION PRINTER</p>	
	<ul style="list-style-type: none"> • Minimum of 45 ppm copy/ppm or higher • Copy, Print, Scan up to A3 Size • Minimum of multi-copy prints 1-9,999 sheets • Minimum of 300 sheets for document feeder: min. 35 gsm to max. 210 gsm • Warm-up time: 15s or less • 1st page out time: 3.8s or less • Resolution: 1800 X 600, 1200 X 1200 dpi • Memory: 8 GB or higher • Hard drive: 256 GB SSD standard • Network capability: Windows, Macintosh, Linux • With at least panel size 10" or higher • With at least 2 cassette tray (500 sheets per tray) and bypass tray (150 sheets or higher) • Scanning speed: 280 ipm in duplex or higher 	

	<ul style="list-style-type: none"> • Toner capacity range: 24,000-26,000 prints higher • Drum capacity range: 260,000-300,000 prints • Developer capacity range: 1,000,000-1.5M prints or higher • Power supply: 220-240V 50/60 Hz • With steel table/pedestal • Can print banner size 1200 X 297 mm • Minimum of 1 year warranty on parts • With initial toner and developer and drum • Package with external electronic stapler • Battery or plug in operating dual power operation • Dual direction design, horizontal and vertical • 40 sheets stapling capacity, 64 gsm • Flat clinch finishing • Rapid stapling performance • Noiseless operation - less than 70 dB • Adjustable stapling depth - 3-15.5 mm • Corner stapling, 45 degrees corner stapling • Easy staple loading - push a button and the magazines comes out to insert new staples • Staple storage compartment • Staple within 0.7s • Weight - 860g • Power consumption - less than 25 W • Loading capacity - 100 staples • Direct distributor form all the brand being offered (w/ attached certificate) • Warranty - 1 year 	
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Conformed by:

**Authorized Representative's
Signature over printed name**

Date: _____