

ANNEX 1 (Technical Specifications)

CATEGORY-1

1. Computer System (FHS-16, SN-13, FHTS-10) Qty: 39

Specification for Computer Systems (General Use)

		Your brand and Specifications
	Minimum Requirements	
Processor	Core i5 (11th Gen- 6 Core) / AMD Ryzen 5 (6 Cores, 12 threads) or higher	
Processor Frequency	intel: 3GHz (4.4Ghz Max turbo) / AMD: 3.6 GHz (4.2Ghz Boost Clock)	
Cache	Intel: 9MB Intel® Smart Cache / AMD: Total L2 Cache: 3MB, Total L 3 Cache: 32MB	
RAM Memory	16GB DDR4 (8 x 2) Dual Channel	
Memory Speed	2133 Mhz	
Storage	240GB PCIe NVMe SSD (for OS) 500GB HDD	
Video Output	HDMI/ VGA/Displayport	
Audio	Integrated	
Keyboard & Mouse	Keyboard & Optical Mouse	
Display	LED 24" Wide Panel (should be compatible with CPU ports)	
Operating System	Genuine Windows 10/11 Pro	
Network	Gigabit Ethernet	
Warranty	1 Year Parts	

CATEGORY-2

1. Laptop (CA-08) Qty: 08

Specification for Laptop

		Your brand and Specifications
	Minimum Requirements	
Processor	Core i5 11th gen or higher	
Memory	8GB DDR4 2666MHz	
Storage	256GB PCIe NVMe SSD	
Display Size	14" Full HD	
Connectivity	WiFi and Bluetooth	
Ports	Gigabit Ethernet	
	HDMI	
	USB 3.1 Gen1	
Built-in Webcam & mic	Required	
Warranty	3 Year Parts	

CATEGORY-3

1. Tablet (CA-20) Qty: 20

Specifications for Tablet



		Your brand and Specifications
	Minimum Requirements	
Model	Surface Go 3 or equivalent	
Memory	8GB LPDR3	
Processor	Dual-core Intel® Pentium® Gold 6500Y processor	
Storage	SSD 128GB	
Dimensions	9.65" x 6.9" x 0.33" (245 mm x 175 mm x 8.3 mm)	
Battery capacities	Battery Capacity Nominal (WH) 28.0 Battery Capacity Min (WH) 26.8	
Display	Screen: 10.5" PixelSense™ Display Resolution: 1920 x 1280 (220 PPI) Aspect ratio: 3:2 Touch: 10-point multi-touch Contrast ratio: 1500:1 Corning Gorilla Glass 3	
Security	Enterprise-grade protection with Windows Hello face sign-in Firmware TPM	
Software	Genuine Windows 11 Pro	
Keyboard compatibility	Surface Go Type Cover	
Pen compatibility	Designed for Surface Pen Integrated magnetic storage with Surface Pen	
Graphics	Intel® UHD Graphics 615	
Connections	1 x USB-C 3.5 mm headphone jack 1 x Surface Connect port Surface Type Cover Port MicroSDXC Card Reader LTE Advanced: Nano SIM tray	
Camera	5MP or more with 1080p (front camera), 8MP or more with 1080p auto-focus (rear camera)	
Accessories	Surface Pen Surface Go Type Cover	
Warranty	1-year	

CATEGORY-4

1. High end Projector (CA-01, BS-01) Qty: 02

Specifications for Projector (Auditorium)		Your brand and Specifications
	Minimum Requirements	
Image Brightness	7000 Lumens	
Lamp Type	Laser	
Resolution	1920 x 1200	
Features	Keystone, Focus	
Video Input	HDMI x 1, HDBaseT x 1, VGA x 1	
Projection Method	Rear, Front and Ceiling	
Authorized letter	yes	



Accessories	HDBaseT TX	
warranty	1 year	

2. Projector (SN-03, KC-03) Qty: 06

Specifications for Projector (classroom)		Your brand and Specifications
	Minimum Requirements	
Brand/Model	Optoma / Benq / Infocus	
Image Brightness	3500 Lumens	
Lamp Type	LCD / DLP	
Resolution	1280x800	
Features	Keystone, Focus	
Video Input	HDMI and VGA	
Projection Method	Rear, Front and Ceiling	

3. Projector Screen (KC-01, FHTS-01, FA-01, FEST-01) Qty:04

Specifications of Projector Screen for Meeting Rooms		Your brand and Specifications
	Minimum Requirements	
Supported Resolution:	1080P / 720p	
Screen Type:	Automatic	
Mount Type:	Wall / Ceiling	
Aspect Ratio:	16:10 / 16:9 / 4:3	
Viewable Diagonal in.:	100" / 94"	
Viewable Width in.:	97" / 80"	
Viewable Height in.:	66" / 50"	
Surface Color:	White	
Front/Rear Projection:	Front	
Projection Surface:	Matte White	

CATEGORY-5

1. WiFi Access Point (CA-05, SN-06) Qty: 11

Specifications for Indoor Wireless access point		Your brand and Specifications
	Minimum Requirements	
Controller Compatibility	Unifi Controller	
Environment	Indoor	
WiFi Standards	802.11a/b/g WiFi 4/WiFi 5/WiFi 6	
Throughput Speeds: 2.4 GHz	450 Mbps	
5 GHz	2.4 Gbps	
Ports	(1) Gigabit Ethernet	
PoE Mode	48V, 0.5A PoE adapter	
PoE Injector	required	



2. Network Switch (KC-02) Qty:02

Specification for Network Switch 16 port (POE)		
		Your brand and Specifications
	Minimum Requirements	
Ports	16 x 1G RJ45 Ports	
Manageable	Yes	
Power Over Ethernet	24W per port	
Warranty	1 Years basic hardware warranty	

3. Network Switch (KC-02) Qty:02

Specification for Network Switch 8 port (POE)		
		Your brand and Specifications
	Minimum Requirements	
Ports	8 x 1G RJ45 Ports	
Manageable	Yes	
Power Over Ethernet	24W per port	
Warranty	1 Years basic hardware warranty	

4. Managed Industrial Poe Switch (KC-01, TC-01, HC-01) Qty:03

Specification for Managed Industrial Network Switch 8 port (POE)		
		Your brand and Specifications
	Minimum Requirements	
Ports	8 x 1G RJ45, 2xSFP Ports	
Manageable	L2+ Managed Industrial	
Power Budget	240 W	
Switching Capacity	20Gbps	
Enclosure	IP40 Rated Metal Enclosure	
Input Voltage	48-55VDC	
Accessories	Power Adaptor UK	
Warranty	1 Years basic hardware warranty	

5. Firewall (TC-01, HC-01) Qty: 02

Specification for Firewall for Campus		
		Your brand and Specifications
	Minimum Requirements	
Model	FORTIGATE 40F or equivalent	
Hardware Accelerated GE RJ45 WAN / DMZ Ports	1	
Hardware Accelerated GE RJ45 Internal Ports	3	
Hardware Accelerated GE RJ45 FortiLink Ports (Default)	1	
IPS Throughput	1 Gbps	



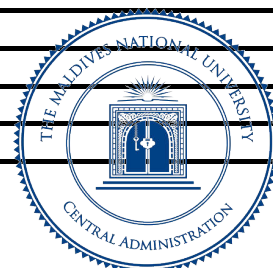
NGFW Throughput	800 Mbps	
Threat Protection Throughput	600 Mbps	
Concurrent Sessions (TCP)	700 000	
New Sessions/Second (TCP)	35 000	
Input Rating	12Vdc, 3A	
Power Required	Powered by External DC Power Adapter, 100–240V AC, 50–60 Hz	
Subscription	UTP bundle subscription	
Warranty	1 year	

6. CCTV Camera (Library-46) Qty: 46

Specifications for CCTV IP Camera (Dome)		Your brand and Specifications
	Minimum Requirements	
HARDWARE		
Sensor	1/3" CMOS /CCD	
Progressive scanning	Required	
Mega Pixel	4MP	
IR Distance	30FT or higher	
Night Vision	Required	
Power input	DC12V and PoE (802.3af)	
AUDIO VIDEO ENCODING		
Video Compression	H.265+/H.265/H.264+/H.264/ MPEG4	
Frame rate	50 Hz: 20 fps (2560 × 1440) 25 fps (1920 × 1080, 1280 × 720) 60 Hz: 20 fps (2560 × 1440) 24 fps (1920 × 1080, 1280 × 720)	
Privacy Mask	4 programmable polygon privacy masks	
DATA TRANSMISSION AND STORAGE		
Alarm Trigger	Motion detection, tampering alarm, network disconnect , IP address conflict, storage exception	

7. CCTV Camera (Library-08) Qty: 08

Specifications for CCTV IP Camera (Bullet)		Your brand and Specifications
	Minimum Requirements	
HARDWARE		
Sensor	1/3" CMOS/CCD	
Mega Pixel	4MP	
Night Vision	Required	
IR distance	50FT or higher	
Power input	DC12V and PoE (802.3af)	
AUDIO VIDEO ENCODING		
Video Compression	H.265+/H.265/H.264+/H.264/ MPEG4	



Resolution	50 Hz: 20 fps (2560 × 1440) 25 fps (1920 × 1080, 1280 × 720) 60 Hz: 20 fps (2560 × 1440) 24 fps (1920 × 1080, 1280 × 720)	
DATA TRANSMISSION AND STORAGE		
Alarm Trigger	Motion detection, tampering alarm, network disconnect , IP address conflict, storage exception	
GENERAL PARAMETERS		
Built-in Micro SD/SDHC/SDXC slot	Support up to 128 GB	
Environmental Casing	Outdoor Use Weather Proof:IP67	
Features	3DNR, Day/Night(ICR)	

8. NVR 32 Cannel (FHS-01) Qty: 01

Specifications for NVR (32 Channel)		Your brand and Specifications
	Minimum Requirements	
Audio/Video Inputs/Outputs		
IP Video Input	32	
Video Interface	HDMI, VGA	
Recording Resolution	1080p	
Output Resolution	1080p/60Hz	
Decoding and Playback		
Decording Formats	H.264, H.265, H.264+, H.265+	
Synchronous Playback	32-Channel	
HDD		
HDD Included	4 x 8TB SATA (Surveillance Hard Drive)	
Interface		
Network Interface	1 x RJ45 1000M	
Camera Compatibility		
IP Dome camera	Should support ONVIF protocol	
IP Bullet camera		

CATEGORY-6


1. A3 Printer (CA-01) Qty: 01

Specifications for Printer (Color/ A3)		Your brand and Specifications
	Minimum Requirements	
	Xerox C8000 OR Equivalent	
Printing Technology	Laser	
Color Type	Color	
Configuration	4 x Toner	
Print Resolution	2400 x 1200 dpi	
Duplex Printing	Yes	



Printer Language	Adobe PostScript 3, HP PCL 5c, HP PCL 6, HP-GL/2, JPEG, PDF, TIFF	
Print Speed (By Time)	45 ppm (Color) 45 ppm (Color Duplex) 45 ppm (Black) 45 ppm (Black Duplex)	
First Print Out Time	11 Seconds (Black) 11 Seconds (Color)	
Monthly Duty Cycle	205,000 Pages	
Printer Media Handling		
Media Handling	2 x Input Tray, Output Tray	
Media Sizes	Input Tray 1 Minimum: 3.9 x 5.8" / 9.91 x 14.73 cm Maximum: 11.7 x 17" / 29.72 x 43.18 cm Input Tray 2 Minimum: 3.9 x 5.8" / 9.91 x 14.73 cm Maximum: 12.6 x 18" / 32 x 45.72 cm	
Media Weight	Input Tray 1, Input Tray 2: 64 to 300 gsm / 18 to 110 lb	
Paper Capacity	Input Tray 1: 520 x Sheet Input Tray 2: 520 x Sheet	
Special Media Support	Envelopes	
Connectivity		
Inputs/Outputs	RJ45, USB-B	
Wireless	802.11b/g Wi-Fi *Via Optional Adapter	
Wireless	Wi-Fi (via Optional Adapter)	
Wi-Fi	802.11b/g; Single-Band (2.4 GHz)	
Direct Printing	USB Port	
Processor Speed	1.6 GHz	
Internal Memory	4 GB	
OS Compatibility	Citrix UNIX Windows Windows Server macOS	
Display Size	5"	
Display Type	Color Touchscreen	
Warranty	1 Year	

2. Photocopy Machine (FSL-01) Qty: 01

Specifications for Photocopy Machine		Your brand and Specifications
	Minimum Requirements	
Media Sizes	A3, A4, A5	
Media Type	Plain Paper, Envelopes	
Paper Supply	2 Trays (500 Sheets)	

Bypass Tray	Yes (100 Sheets A4, A3)	
Copying speed	40 CPM (A4)	
Continous Copy	Upto 999 copies	
Toner Capacity	30,000 copies	
Memory Size	2 GB	
Hard Disk Size	250 GB	
Scanning Speed	40 SPM	
Scan File Formats	JPEG, PDF	
Scanning Features	Scan to File, USB	
Color Scanning	YES	
Print Resolution	600 x 600 DPI / 256 Levels	
Print Speed	40 PPM	
Warm-up Time	30 Seconds or less	
Operating System	Compatible windows 10	
Duplexing Automatic Document Feeder	Required	
Network Printing	Required	
Warranty & Authorization Letter	1 Years & letter	

