



**BID BULLETIN 01**

**Date:** 14 November 2022

**Project Title:** *Supply and Delivery of I.T Equipment and Supplies (VSU-GOODS-23-03)*

**Location:** VSU Main, Visca, Baybay City, Leyte

Bidders are hereby informed/reminded of the following addendums/amendments/clarifications:

**I. LIST OF REQUIREMENTS**

<b>(1st Envelope) TECHNICAL COMPONENT ENVELOPE</b>	
<i>Legal Documents</i>	
1	PhilGEPS Certificate of Registration (Platinum)
<i>Technical Documents</i>	
2	Statement of All On-Going Government & Private Contracts
3	Statement of Bidder's Single Largest Completed Contract (at least 50% of the ABC or Php <b>3,775,702.50</b> )
	Or
	Statement of at least two (2) similar completed contracts w/ total amount of at least Php 3,775,702.50 and the largest of which should be at least Php <b>1,887,851.25</b> .
4	Bid Security
5	Technical Specifications
6	SCHEDULE of Requirements/Production and delivery schedule
7	Manpower Requirements
8	After Sales service/parts from acceptance of delivered goods (at least 1 year for equipment and 3 months for supplies)
9	Original Duly Signed Omnibus Sworn Statement
<i>Financial Documents</i>	
10	The Supplier's Audited Financial Statements
11	Net Financial Contracting Capacity (at least Php 7,551,405)
	Or
	Committed Line of Credit (at least Php 755,140.50)
<b>(2<sup>nd</sup> Envelope) FINANCIAL COMPONENT ENVELOPE</b>	
12	Original of duly signed and accomplished Financial Bid Form
13	Original of duly signed and accomplished Price Schedule(s)



**Please take note:**

In the **Technical Specifications**, bidders must state either “Comply” or “Not Comply” **against each of the individual parameters of the specifications** per item stating the corresponding performance parameter of the equipment offered. Statements of “Comply” or “Not Comply” must be supported by evidence in the **Bidders Bid** and cross-referenced to that evidence. Evidence shall be in the form of **manufacturer’s un-amended sales literature (Data Sheets), unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data, and Brand and Model** 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).

**II. Preparation of Electronic Bid (for bidders who prefer electronic bid submission)**

1. Convert all documents into Portable Document Format (PDF) and should be printable.
2. Properly label all documents for prompt identification. Filename of documents, whichever are applicable to the bidder, should be as follows:

<b>Document</b>	<b>Filename (in PDF form)</b>
1. PhilGEPS Certificate of Registration (Platinum)	PhilGEPS
2. Registration Certificate (SEC/DTI)	Registration Certificate
3. Mayor’s/Business Permit	Mayor’s-Business Permit
4. Tax Clearance	Tax Clearance
5. Statement of On-Going Government & Private Contracts	Statement of On-Going Contracts
6. Statement of Bidder's Single Largest Completed Contract	SLCC
7. Statement of at least two (2) similar completed contracts	Statement of Completed Contracts
8. Bid Security	Bid Security
9. Technical Specifications	Technical Specifications
10. SCHEDULE of Requirements/Production and delivery schedule	Schedule of Requirements
11. Manpower Requirements	Manpower Requirements
12. After Sales service/parts	After Sales
13. Omnibus Sworn Statement	Omnibus Sworn Statement
14. Audited Financial Statements	Audited Financial Statements
15. Net Financial Contracting Capacity	NFCC
16. Committed Line of Credit	CLC
17. Bid Form	Bid Form
18. Price Schedule	Price Schedule

3. Create two (2) folders that are password-protected. The first folder should contain all requirements under Technical Component checklist as presented under Section VIII.

The second folder should contain all requirements under Financial Component checklist.



4. Compress the two (2) folders and name as follows: a) first folder: **Technical Documents**, b) second folder: **Financial Documents**.
5. Email the 2 compressed folders to Ms. Jessamine C. Ecleo at [jessamine.ecleo@vsu.edu.ph](mailto:jessamine.ecleo@vsu.edu.ph) before the deadline.

**III. Changes in the Bidding Documents**

Original	
<p><b>Section I. Invitation to Bid</b></p> <p>5. A complete set of Bidding Documents may be acquired by interested Bidders on <i>03 November – 23 November 2022 until 8:30 AM</i> from the given address and website(s) below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Ten Thousand Pesos (PhP 10,000.00). The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person, by facsimile, or through electronic means.</p>	<p><i>(Amendment)</i></p> <p>A complete set of Bidding Documents may be acquired by interested Bidders on <i>03 November – 23 November 2022 until 8:30 AM</i> from the given address and website(s) below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Ten Thousand Pesos (PhP 10,000.00). The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person, by facsimile, or through electronic means:</p> <p>The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person, by facsimile, or through electronic means.</p> <p>The Bidders may deposit the payment for the bidding documents to the Visayas State University Landbank Account with the following details:</p> <p>Account Name: Visayas State University Fund 164 Account Number: <u>3572-1000-13</u></p> <p>Then send the deposit slip to <a href="mailto:jessamine.ecleo@vsu.edu.ph">jessamine.ecleo@vsu.edu.ph</a></p>
<p><b>Section II. Instructions to Bidders</b></p> <p>15. Sealing and Marking of Bids</p>	<p><i>(Additional Instructions)</i></p> <p>Bidders are requested to submit three (3) copies of its bid – 1 Original, Copy 1, and Copy 2.</p> <p>For filing purposes, the bidders are urged to use <b>Dark Blue</b> envelopes for its Technical and Financial Component envelopes, including the Mother (outer) Envelope.</p>



**IV. Revised List of Goods and Technical Specifications**

- Some Specifications were added (in red font) and/or deleted (in blue font)
- Some Quantities and Unit Prices (ABC) were changed

Item No.	Description	Unit	Qty	ABC/Unit	Total ABC
1	<b>1TB, Hard disk Drive, 7200rpm, for desktop</b>	piece	1	3,000.00	3,000.00
	☐11TB				
	☐SATA 6Gb/s interface optimizes burst performance;				
	☐64MB Cache				
	☐Average Data Rate, Read/Write : 156				
	☐Max Sustained Data Rate, OD Read (MB/s) : 210				
	☐Cache, Multisegmented (MB) : 64				
2	<b>All-in-One Ink Tank Printer Wi-Fi Duplex with ADF</b>	unit	1	21,000.00	21,000.00
	☐Compact integrated tank design				
	☐Print speeds up to 15ipm for black and 8.0ipm for colour				
	☐Auto-duplex printing Fax and ADF capability / Ethernet &				
	☐Wi-Fi Direct				
	☐Borderless Printing up to A4 size				
	☐Spill-free ink refilling				
	☐Control Panel: 2.4 " Colour LCD Touch Panel				
3	<b>Antivirus Software 3 Device, 1+1 Year Licence include VPN (enrolled auto-renewal)</b>	pc	2	2,000.00	4,000.00
	☐Antivirus Software keeps your PC/Laptop/Mobile device safe from Trojans, viruses, spyware, rootkits, and more, with state-of-the-art anti-malware protection				
	☐Detects, quarantines, and blocks viruses and malware to prevent damage to your PC/Laptop				
	☐Keep zero-day threats and botnets at bay - McAfee Active Protection and Global Threat Intelligence technology have you covered				
	☐Block inappropriate sites				
	☐Two-Way Firewall system monitors and stops traffic in and out of your PC				
	☐Keep sensitive files private by storing them on your PC with 128-bit encryption				
	☐Eliminate the hassle of passwords with the password manager app				
4	<b>Anti-virus Software, at least 3 users</b>	pc	1	5,000.00	5,000.00
	anti-malware				
	anti-ransomware				
	anti-hacking				
	perpetual license				
5	<b>Apple Pencil (2nd Generation) for iPad Pro and iPad Air</b>	pc	1	8,000.00	8,000.00
	Pixel-perfect precision and industry-				



	leading low latency				
	Compatible with iPad Pro and iPad Air and attaches magnetically for automatic charging and pairing.				
	Connections: Bluetooth				
	Genuine Apple accessory				
6	<b>ATX Power Supply Unit, with 24 pin plus 8 pin</b>	unit	2	1,200.00	2,400.00
	Power Input: 220V - 240V VAC, 6A				
	Input Frequency Range: 50-60Hz				
	PFC: Passive PFC				
	MTBF: 50,000 Hours				
	Wattage: Max 700W				
	Power Output: +3.3V 18A; +5V 20A; +12V 48A; -12V 0.3A; +5VSB 2.5A				
	Operation Temperature: 0-40°C (Nominal Input Voltage)				
	Connectors: 1 x 24-Pin (20+4) Main, 1 x 8-Pin (4+4) 12V, 1 x 8-Pin PCI-E (6+2) , 6 x SATA Connector, 3 x 4-Pin Molex Peripheral, 1 x Floppy Drive Connector				
7	<b>Automatic Voltage Regulatory (AVR), 1500W, heavy duty</b>	unit	1	5,000.00	5,000.00
	☑Input: 220volts				
	☑Power: 1500watts				
	☑Output: 110-220 volts				
	☑Range voltage 120v-220 volts				
	☑Servo motor controlled				
8	<b>AVR, 500W (IC Controlled)</b>	unit	5	500.00	2,500.00
	☑Power Output: 500 W				
	☑Power Factor Correction (PFC): Active PFC with Value of 0.98				
	☑Fan Type: 1 x 120 mm Smart and Silent Fan Control 22 dBA				
	☑Safety Standards: FCC, CB, CCC, TUV, CE, C-tick, EMI, EMC, S-Intertek, CPT-AB15				
9	<b>Canon PIXMA, 830 (Black Ink)</b>	pc	4	900.00	3,600.00
10	<b>Compact Document Scanner</b>	unit	1	18,000.00	18,000.00
	25ppm/50ipm, 2-sided colour scan speed				
	20 sheets Automatic Document Feeder (ADF)				
	Portable with micro-B USB3.0 Bus power				
	Dedicated plastic ID card slot				
	Scan to PC and USB host				
	Scanning Speed: 25ppm (A4) 2-sided colour scan speed				
	Document Size - Multiple Papers - Width: 51 mm to 215.9 mm				
	Document Size - Multiple Papers - Length: 70 mm to 863 mm				
	Document Size - Single Papers - Width: 51 mm to 215.9 mm				
	Document Size - Single Papers - Length: 70 mm to 863 mm				
	Colour/Black: Yes/Yes				
	Duplex Scan: Yes				



	Color Depth - Input: 48-bit colour processing				
	Color Depth - Output: 24-bit colour processing				
	Resolution - Optical: Max 600 dpi x 600 dpi				
	Resolution - Interpolated: Max 1,200 dpi x 1,200 dpi				
	Scanning Width: Max 216mm				
	Grayscale: 256 levels				
	Memory Capacity: SDRAM: 256 MB				
	ADF: up to 20 sheets				
	Interface: USB: Hi-Speed USB 2.0, Superspeed USB 3.0				
11	<b>Computer HD Webcam</b>	pieces	2	4,000.00	8,000.00
	☐1080P Full HD Webcam				
	☐Lens: HD lens				
	☐Sensor Type: CMOS				
	☐Video Format: AVI				
	☐Frame Rate: at least 30FPS				
	☐Drive Type: free drive. Plug and play				
	☐Photo Format: BMP JPG				
	☐Resolution: 1920 * 1080 P				
	☐Output Format: M-JPEG				
	☐Interface Type: USB2.0				
	☐Microphone: Built-in microphone				
	☐Focusing Range: 20mm				
12	<b>Computer Keyboard USB</b>	pcs	20	400.00	8,000.00
	☐Standard Keyboard with 104 Keys				
	☐USB Connection				
	☐Low Profile Key Caps				
	☐Minimum Key Noise				
	☐Laser Printing for Key Layout				
	☐Spill Resistant Design				
13	<b>Computer Monitor 21.5" or higher, VA</b>	pc	2	7,500.00	15,000.00
	Size: 21.5"				
	Panel Type: VA				
	Resolution: 1920x1080 (FHD)				
	Refresh Rate: 75Hz				
	Response Time: 5MS				
	Interface: VGA, HDMI				
	With a slim and 3-sided frameless design				
	Flicker Free and Low Blue Mode eye protection technology				
	VESA mount compatibility				
14	<b>Computer Monitor 24", IPS</b>	set	6	10,000.00	60,000.00
	☐Panel Size: Wide Screen 23.8"(60.5cm) 16:9				
	☐Color Saturation : 72%(NTSC)				
	☐Panel Type : In-Plane Switching				
	☐True Resolution : 1920x1080				
	☐Brightness(Max) : 250 cd/m				
	☐Contrast Ratio (Max) : 1000:1				
	☐Response Time : 5ms (Gray to Gray)				
	☐Display Colors : 16.7M				
	☐Flicker free				



15	<b>Computer Printer 3-in-1</b>	unit	3	12,500.00	37,500.00
	☑with CIS Filled with Inks				
	☑Compact integrated tank design				
	☑High yield ink bottles				
	☑Spill-free, error-free refilling				
	☑Wi-Fi, Wi-Fi Direct				
	☑Borderless printing up to 4R				
16	<b>Computer Printer, All-in-One/Multifunction Colored-Ink Tank</b>	unit	6	14,000.00	84,000.00
	☑Ultra-low-cost printing: Print up to 4,500 pages in black and 7,500 in colour				
	☑Next generation ink filling system: Enjoy hassle and mess-free refills with the enhanced ink bottles				
	☑Wi-Fi, Wi-Fi Direct & apps: Print from mobile devices				
	☑3-in-1: Print, copy & scan and borderless photo printing				
	☑Nozzle Configuration: 180 Nozzles Black, 59 Nozzles per Color				
	☑Minimum Droplet Size: 3 pl, With Variable-Sized Droplet Technology				
	☑Ink Technology: Dye Ink				
	☑Printing Resolution: 5,760 x 1,440 DPI				
17	<b>Computer ribbon, EPSON SO15531/15086, Genuine</b>	pieces	5	765.00	3,825.00
18	<b>Cover for CPU (Mini Tower) (package)</b>	set	4	60.00	240.00
19	<b>Cover for keyboard</b>	pieces	9	50.00	450.00
20	<b>CPU (Central Processing Unit)</b>	pc	3	15,000.00	45,000.00
	☑AMD A10-8770 Processor				
	☑Motherboard compatible with the processor				
	☑Kingston 4GB DDR4-2666 Memory				
	☑CPU Casing w/ PSU				
	☑256GB SSD				
21	<b>Desktop Computer (i5) 11th Gen, Assembled, with IPS Monitor</b>	unit	1	40,000.00	40,000.00
	☑Processor: 11th Gen Intel(R) Core(TM) i5-11400 processor (6-Core, 12M Cache, 2.6GHz to 4.4GHz) or higher				
	☑Motherboard: Intel H510M Chipset Ultra Durable Motherboard with Gaming LAN, Anti-Sulfur Resistor, Smart Fan 5 or higher				
	☑iGPU: Intel UHD Graphics 730 or higher				
	☑RAM: 8GB, 8Gx1, DDR4, 2933MHz or higher				
	☑Storage: 240GB 2.5" SATA SSD or higher				
	☑Chassis/Power Supply: MicroATX case with 700w PSU				
	☑Keyboard and Optical Mouse				
	☑24" IPS monitor				



22	<b>Desktop Computer (i7), 11th Gen, 8GB RAM</b>	unit	3	48,766.00	146,298.00
	☐Processor: Intel® Core™ i7-11700 or higher				
	☐Chipset: Intel®H510 with ultradurable capacitors				
	☐Graphics: Intel® UHD Graphics 750				
	☐Memory: at least 8 GB Dual Channel, DDR4 at 3200MHz				
	☐Expansion Slots: 1 x M.2, 2 x PCI-e x 1, 1 x PCI-e x 16				
	☐SATA: 4 x SATA 6Gb/s *1				
	☐Storage: at least 250 GB M.2 SSD				
	☐Operating System: Genuine Windows 10 Home with Certificate of authenticity clarify with TWG COA or from Microsoft				
	☐Power Supply: at least 500 W Peak with ATX case				
	☐Monitor: 24" LED IPS Full HD				
	☐Keyboard and Mouse				
23	<b>Desktop Computer (w/o Monitor), Core i3 11th Gen</b>	unit	5	25,600.00	128,000.00
	☐Processor: Intel Core i3-11300 (4 cores /8 threads) or higher				
	☐Motherboard: Intel H510M Ultra Durable motherboard, Gaming LAN, Anti-Sulfur Resistor, LGA-1200				
	☐Memory: 8GB DDR4 2933 DIMM Desktop Memory or higher				
	☐SSD: 240GB NVMe or higher				
	☐Casing with Power Supply				
	☐Operating System: Genuine Windows 10 Home (OEM) with Certificate of authenticity clarify with TWG COA or from Microsoft				
	☐w/ USB Keyboard and Mouse				
24	<b>Desktop Computer, Assembled, 12th Gen Core i5, SDD and HDD</b>	sets	2	45,000.00	90,000.00
	Processor: Intel® Core i5 12th gen with Intel® UHD Graphics 730 or higher				
	Motherboard :Intel® H610 Chipset for 12th Gen Intel® Core™ Series Processors, Dual Channel Non-ECC Unbuffered DDR4, 2 DIMMs, 6+1+1 Hybrid Digital VRM Design, Intel® GbE LAN, NVMe PCIe 3.0 x4 M.2, High Quality Audio Capacitors and Audio Noise Guard, mATX form factor or higher				
	RAM: 16GB DDR4 3200 Mhz or higher				
	SSD: 512 GB NVMe PCIe Gen 3x4				
	HDD: 1 TB 7200 RPM				
	PSU: 650w 80 plus Bronze Certified				
	Casing: mATX Casing with transparent acrylic side panel				
	24" IPS monitor 72% NSTC color gamut with 75Hz refresh rate				
	Keyboard and Mouse Combo: Spill-resistant design with up to Up to 5 million keystrokes (excludes number				



	lock key) keyboard and full-sized ambidextrous optical mouse				
	Operating system: Genuine Windows 11 <b>with Certificate of authenticity clarify with TWG COA or from Microsoft</b>				
25	<b>Desktop Computer, with Monitor, Core i5 12th Gen, 8GB RAM</b>	sets	1	35,000.00	35,000.00
	Processor: 12th Generation Intel® Core™ i5-12400 Processor(2.50 GHz up to 4.40 GHz) or higher				
	Motherboard: Intel® H610 Express Chipset Micro ATX Motherboard, with 6+1+1 Hybrid Digital VRM, High quality capacitors and Anti-sulfur resistors or higher				
	Operating System: Genuine Windows 11 Home 64 <b>with Certificate of authenticity clarify with TWG COA or from Microsoft</b>				
	Memory: 8 GB DDR4-3200MHz (UDIMM) or higher				
	Graphics: Integrated Graphics				
	SSD: 256 GB SSD M.2 2280 PCIe or higher				
	Casing: mATX casing				
	Power supply: at least 450W, True Rated 80+ Bronze				
	Monitor: 24" FHD (1920 x 1080) IPS Monitor, NTSC 72%, 5ms response time, 60Hz				
26	<b>DHT11 Temperature/Humidity Sensor module for Arduino with wires, temp accuracy +-2°C</b>	unit	2	80.00	160.00
	DHT11 Temperature/Humidity Sensor module for Arduino with wires, temp accuracy +-2°C, functional and good quality				
27	<b>Digital Multimeter</b>	pc	3	7,000.00	21,000.00
	DCV: 400m/4/40/400/1000V				
	ACV: 4/40/400/1000V ±(1.2%+7)				
	DCA: 400µ/4000µ/40m/400m/4/10A				
	ACA: 400µ/4000µ/40m/400m/4/10A				
	Resistance: 400/4k/40k/400k/4M/40MΩ				
	Capacitance: 50n/500n/5µ/50µ/100µF				
	Frequency: 5/50/500/5k/50k/100kHz				
	Continuity: Buzzer sounds and LED lights up at between 0Ω and 85Ω ( ±45Ω ) . Open voltage:Approx. 0.4V				
	Diode test: Open voltage:approx.1.5V				
	Battery Check: Approximate value ( 30Ω load ) 1.5V battery only				
	Display numeral display: 4000				
	Sampling rate: 3 times/sec.				
	Bandwidth: 40 ~ 400Hz ( Sine wave)				
	Fuse: 0.5A/1000V 30kA Φ6.35×32mm				



	10A/1000V 30kA Φ10×38mm				
	Battery: R6Px2				
	Battery life: Approx.400h (manganese battery) at DCV range Safety: IEC61010CAT.Ⅲ600V/CAT.Ⅱ1000VD CV: 400m/4/40/400/1000V				
	ACV: 4/40/400/1000V ±(1.2%+7)				
	DCA: 400μ/4000μ/40m/400m/4/10A				
	ACA: 400μ/4000μ/40m/400m/4/10A				
	Resistance: 400/4k/40k/400k/4M/40MΩ				
	Capacitance: 50n/500n/5μ/50μ/100μF				
	Frequency: 5/50/500/5k/50k/100kHz				
	Continuity: Buzzer sounds and LED lights up at between 0Ω and 85Ω ( ±45Ω ) . Open voltage:Approx. 0.4V				
	Diode test: Open voltage:approx.1.5V				
	Battery Check: Approximate value ( 30Ω load ) 1.5V battery only				
	Display numeral display: 4000				
	Sampling rate: 3 times/sec.				
	Bandwidth: 40 ~ 400Hz ( Sine wave)				
	Fuse: 0.5A/1000V 30kA Φ6.35×32mm 10A/1000V 30kA Φ10×38mm				
	Battery: R6Px2				
	Battery life: Approx.400h (manganese battery) at DCV range				
	Safety: IEC61010CAT.Ⅲ600V/CAT.Ⅱ1000V				
28	<b>Epson 001 ink, Black, 127ml, Genuine</b>	btls	49	600.00	29,400.00
29	<b>Epson 001 ink, Cyan, Genuine</b>	btls	45	350.00	15,750.00
30	<b>Epson 001 ink, Magenta, Genuine</b>	btls	35	350.00	12,250.00
31	<b>Epson 001 ink, Yellow, Genuine</b>	btls	45	350.00	15,750.00
32	<b>Epson 003 Ink Bottle for Epson L3150, Black, Genuine</b>	btls	44	400.00	17,600.00
33	<b>Epson 003 Ink Bottle for Epson L3150, CYAN, Genuine</b>	btls	30	400.00	12,000.00
34	<b>Epson 003 Ink Bottle for Epson L3150, MAGENTA, Genuine</b>	btls	30	400.00	12,000.00
35	<b>Epson 003 Ink Bottle for Epson L3150, YELLOW, Genuine</b>	btls	30	400.00	12,000.00
36	<b>External Hard Disk Drive (Portable, 1TB), USB 3.1</b>	unit	5	3,500.00	17,500.00
	☑Shock-absorbing				
	☑Interface: USB 3.1 (Max.5Gb/s)				
	☑Capacity: 1TB				
	☑Texture: Plastic/Rubber				
	☑Operating Voltage: DC 5V, 900mA				
	☑System Requirements: Windows XP / Vista / 7 / 8 / 8.1 / 10, Mac OS X 10.6 or later, Linux Kernel 2.6 or later				
37	<b>External Hard Disk Drive (Portable, 2TB), USB 3.1</b>	unit	2	4,200.00	8,400.00
	☑Shock-absorbing				
	☑Interface: USB 3.1 (Max.5Gb/s)				



	<ul style="list-style-type: none"> <li>☐Capacity: 2TB</li> <li>☐Texture: Plastic/Rubber</li> <li>☐Operating Voltage: DC 5V, 900mA</li> <li>☐System Requirements: Windows XP / Vista / 7 / 8 / 8.1 / 10, Mac OS X 10.6 or later, Linux Kernel 2.6 or later</li> </ul>				
38	<b>External Hard Disk Drive, (Portable 500GB or higher), USB 3.0</b>	piece	3	3,500.00	10,500.00
	<ul style="list-style-type: none"> <li>☐Hard Drive Type:2.5" HDD</li> <li>☐USB Interface: USB 3.0</li> <li>☐Capacity:500GB</li> </ul>				
39	<b>Flash Drive, 16 GB capacity</b>	pc	12	400.00	4,800.00
40	<b>Flash Drive, at least 32GB USB 3.0</b>	piece	20	400.00	8,000.00
41	<b>Flatbed Scanner</b>	unit	1	5,000.00	5,000.00
	<ul style="list-style-type: none"> <li>☐Scanner Type: <ul style="list-style-type: none"> <li>◀Flatbed colour image scanner</li> </ul> </li> <li>☐Scanning Method: <ul style="list-style-type: none"> <li>◀Fixed document and moving carriage</li> </ul> </li> <li>☐Optical Resolution: <ul style="list-style-type: none"> <li>◀4,800 dpi x 4,800 dpi *1</li> </ul> </li> <li>☐Output Resolution: <ul style="list-style-type: none"> <li>◀50 dpi to 4800 dpi, 7200 dpi, 9600 dpi (50 dpi to 4800 dpi in 1 dpi increments) *2</li> </ul> </li> <li>☐Scanner Bit Depth (Colour): <ul style="list-style-type: none"> <li>◀48-bit input, 24-bit output</li> </ul> </li> <li>☐Scanner Bit Depth (Grayscale): <ul style="list-style-type: none"> <li>◀16-bit input, 8-bit output</li> </ul> </li> <li>☐Scanner Bit Depth (Black &amp; White): <ul style="list-style-type: none"> <li>◀16-bit input, 1-bit output</li> </ul> </li> <li>☐Max Document Size: <ul style="list-style-type: none"> <li>◀Up to 216 x 297mm</li> </ul> </li> </ul>				
42	<b>HDMI to HDMI cable</b>	piece	12	500.00	6,000.00
	☐chord 1.8 meter long;				
43	<b>HDMI to HDMI cable, 20 meters</b>	pcs	2	1,500.00	3,000.00
	Length: 20 Meters				
	High Quality Pure Copper				
	HDMI Male to HDMI Male				
	Transfers at speeds up to 10.2 Gbps				
	Gold plated 19 pin HDMI connectors; oxygen-free copper cable				
	PVC jacket with high visibility nylon braiding				
44	<b>Headset (Wired), Generic Over the Ear with mic</b>	pcs	2	500.00	1,000.00
	☐Line is equipped with a rotary volume controller, one key Mic mute,				
	☐Frequency Range:20-20K(Hz)				
	☐Sensitivity:-52(dB)				
	☐Impedance:32(Ohm)				
	☐Speaker Diameter:40(mm)				
	☐Distortion Rate:0.8%				
	☐Plug Diameter:3.5mm				
45	<b>Headset with Noise Cancelling Mic</b>	unit	4	1,800.00	7,200.00
	☐Input Impedance: at least 32 Ohms				
	☐Sensitivity (headphone):at least 94 dBV/Pa +/- 3 dB				
	☐Sensitivity (microphone): -17 dBV/Pa +/- 4 dB				



	☑Frequency response (Headset): 20 Hz - 20 KHz				
	☑Frequency response (Microphone): 100 Hz - 10 KHz				
	☑Cable Length: at least 7 ft				
	☑Connections: USB-A compatible (1.1, 2.0, 3.0), USB port 1Type A port or adapter				
46	<b>Heavy Duty Office Printer,Scanner and Photocopier</b>	pcs	1	25,000.00	25,000.00
	Printer Type:				
	Print, Scan, Copy, Fax with ADF				
	Photo Default - 10 x 15 cm / 4 x 6 ":Approx. 69 sec per photo (Border) / 90 sec per photo (Borderless) *1Draft, A4 (Black / Colour):Up to 33 ppm / 15 ppm *1ISO 24734, A4 Simplex (Black / Colour):Up to 10 ipm / 5.0 ipm *1First Page Out Time from Ready Mode (Black / Colour):Approx. 10 sec / 16 sec *1				
	Copy Quality:Draft / Standard / Best QualityMaximum Copies from Standalone:99 copiesReduction / Enlargement:25 – 400 %, Auto Fit FunctionMaximum Copy Resolution:600 x 600 dpiMaximum Copy Size:LegalISO 29183, A4 Simplex Flatbed (Black / Colour):Up to 7.7 ipm / 3.8 ipm				
	Scan Function:				
	Scanner Type:				
	Flatbed colour image scanner				
	Sensor Type:				
	CIS				
	Optical Resolution:				
	1200 x 2400 dpi				
	Maximum Scan Area:				
	216 x 297 mm (8.5 x 11.7")				
	Scanner Bit Depth (Colour):				
	48-bit input, 24-bit output				
	Scanner Bit Depth (Grayscale):				
	16-bit input, 8-bit output				
	Scanner Bit Depth (Black & White):				
	16-bit input, 1-bit output				
	Scan Speed (Flatbed / ADF (Simplex)):				
	200dpi, Black: 12 sec / 4.5 ipm				
	200dpi, Colour: 29 sec / 4.5 ipm				
47	<b>HP Ink Cartridge 678 Black</b>	piece	24	550.00	13,200.00
48	<b>HP Ink Cartridge 678 Tricolor</b>	piece	24	550.00	13,200.00
49	<b>HP Laserjet 44a, Toner cartridge</b>	pcs	12	3,000.00	36,000.00
50	<b>Ink, Black C13T05A100 for Epson Copier ProWF-C878R</b>	pack	3	8,000.00	24,000.00
51	<b>Ink, Brother BT5000C Cyan</b>	btls	25	500.00	12,500.00
52	<b>Ink, Brother BT5000M Magenta</b>	btls	30	500.00	15,000.00
53	<b>Ink, Brother BT5000Y Yellow</b>	btls	30	500.00	15,000.00
54	<b>Ink, Brother BTD60BK, Black</b>	btls	30	500.00	15,000.00
55	<b>Ink, Brother LC-539XL, Black</b>	pc	4	470.00	1,880.00
56	<b>Ink, Cyan C13T05A200 Epson Copier ProWF-C878R</b>	box	3	9,000.00	27,000.00



57	<b>Ink, Epson 001 Cyan, Magenta, Yellow and Black (C,Y,M,K) set for L6170</b>	set	10	1,600.00	16,000.00
58	<b>Ink, Epson 003, Genuine Black 65mL</b>	btl	387	350.00	135,450.00
59	<b>Ink, EPSON 003, Genuine Cyan 65mL</b>	btl	205	350.00	71,750.00
60	<b>Ink, EPSON 003, Genuine Magenta 65mL</b>	btl	200	350.00	70,000.00
61	<b>Ink, EPSON 003, Genuine Yellow 65mL</b>	btl	203	350.00	71,050.00
62	<b>Ink, Epson 664 T664 Black and Color set (Black / Cyan / Magenta / Yellow) for Epson L405</b>	set	8	1,500.00	12,000.00
63	<b>Ink, Epson, genuine (C) T664, 70 ml</b>	pieces	59	350.00	20,650.00
64	<b>Ink, Epson, genuine (M) T664, 70 ml</b>	pieces	58	350.00	20,300.00
65	<b>Ink, Epson, genuine, (BK) T664, 70 ml</b>	pieces	133	350.00	46,550.00
66	<b>Ink, Epson, genuine, (Y) T664, 70 ml</b>	pieces	58	350.00	20,300.00
67	<b>Ink, Magenta C13T05A300 for Epson Copier ProWF-C878R</b>	box	3	9,000.00	27,000.00
68	<b>Ink, MP100Le (for digital copier)</b>	piece	1	2,900.00	2,900.00
69	<b>Ink, Yellow C13T05A400 for Epson Copier ProWF-C878R</b>	pack	3	9,000.00	27,000.00
70	<b>Keyboard And Mouse Combo Bundle, USB powered</b>	set	17	600.00	10,200.00
	☑Keyboard				
	◀Keycaps: A-Shape, Round Edge				
	◀Hotkeys: No				
	◀Character: Laser Engraving				
	◀Adjustable Keyboard Legs: Yes				
	◀Rating: 5 V / 30 mA				
	☑Mouse				
	◀Report Rate: 125 Hz				
	◀Sensor: Optical				
	◀Resolution: 1000 DPI				
	◀Rating: 5 V / 100 mA				
	◀Buttons No.: 3				
	◀Ergonomic Design: Symmetric				
	◀Size: Middle / Big Hands				
71	<b>Laptop 14" (i3)</b>	unit	1	33,000.00	33,000.00
	☑Processor : Intel Core i3-1005G1 Processor 4M Cache, up to 3.40 GHz or higher				
	☑Operating System : Windows 10 Home				
	☑Memory : 4GB Onboard memory, 1 x SO-DIMM socket , total up to 8 GB SDRAM				
	☑Display : 14.0" (16:9) LED-backlit HD (1366x768) 60Hz Anti-Glare Panel with 45% NTSC				
	☑Graphics : Integrated Intel UHD Graphics				
	☑Storage : 512GB PCIe Gen3 x2 SSD				
	☑Networking : Integrated Wi-Fi 5 (802.11 ac) Bluetooth 5.0				
	☑Battery : 2 -Cell 32 Wh lithium-polymer battery				
72	<b>Laptop 14" (i5)</b>	unit	5	44,000.00	220,000.00
	☑Processor: Intel Core i5-1035G1 Processor 1.0 GHz 6M Cache, up to				



	3.60 GHz or higher				
	▣Operating system: Windows 10 Home				
	▣Memory: 4GB memory, 1 x SO-DIMM socket (for expansion)				
	▣Display: 14.0" (16:9) LED-backlit FHD (1920x1080) 60Hz Anti-Glare Panel with 45% NTSC				
	▣Video Processor: NVIDIA GeForce MX330 , with 2GB GDDR5 VRAM				
	▣Storage: 512GB PCIe Gen3 x2 SSD				
73	<b>Laser Printer Color (Print, Copy, Scan), with 5" LCD, Ethernet and WiFi Capable</b>	unit	1	25,000.00	25,000.00
	Printing Method: Colour Laser Beam Printing				
	Print Speed: A4 18 / 18 ppm (Mono / Colour), Letter 18 / 18 ppm (Mono / Colour)				
	Print Resolution: 600 x 600 dpi				
	Print Quality with Image Refinement Technology: 1,200 (eq.) x 1,200dpi (eq.)				
	Warm up Time (From Power On): 13 sec or less				
	First Print Out Time (FPOT): A4				
	Approx. 10.4 / 10.5 sec (Mono / Colour)				
	Letter: Approx 10.3 / 10.3 sec (Mono / Colour)				
	Recovery Time (From Sleep Mode): 6.1 sec or less				
	Print Language: UFR II				
	Auto Duplex Print				
	Standard Cassette: 250 sheets (80gsm)				
	Multi-Purpose Tray: 1 sheet				
	Maximum Paper Input Capacity: 251 sheets				
	Paper Output: 100 sheets				
	Standard Cassette: A4, B5, A5, Letter, Legal, Statement, Executive, Government Letter, Government Legal, Foolscap, Indian LegalCustom (Min. 76.2 x 127.0mm to Max. 216.0 x 355.6mm)				
	Multi-Purpose Tray: A4, B5, A5, Letter, Legal, Statement, Executive, Government Letter, Government Legal, Foolscap, Indian Legal, Index Card. Envelope: COM10, Monarch, C5, DLCustom (Min. 76.2 x 127.0mm to Max. 216.0 x 355.6mm)				
	Wired: USB 2.0 High Speed, 10Base-T/100Base-TX/1000Base-T				
	Wireless: Wi-Fi 802.11b/g/n(Infrastructure mode, WPS Easy Setup, Direct Connection)				
	Network Protocol: Print				
	TCP/IP Application Services: Bonjour(mDNS), HTTP, HTTPS, POP before SMTP (IPv4,IPv6), DHCP, ARP+PING, Auto IP, WINS (IPv4), DHCPv6 (IPv6) Management				



	Wired: IP/Mac address filtering, HTTPS, SNMPv3, IEEE802.1x, IPSEC				
	Wireless: WEP 64/128 bit, WPA-PSK (TKIP/AES), WPA2-PSK (AES)				
	Device Memory: 1 GB				
	LCD Display: 5-line LCD				
	Monthly Duty Cycle: 30,000 pages				
74	<b>LCD Projector SVGA (800x600)</b>	unit	2	25,000.00	50,000.00
	☐Projection System: 3LCD Technology, RGB liquid crystal shutter				
	☐Resolution: SVGA (800x600), 4:3				
	☐Light Output: 3,300 Lumen- 2,050 Lumen (economy)				
	☐Contrast Ratio: 15,000:1				
	☐Lamp: 210 W				
	☐Lamp Hours: 6,000-10,000				
75	<b>LCD Projector, XGA (1024x768)</b>	unit	1	27,000.00	27,000.00
	☐Projection Method: Front/rear/ceiling mount				
	☐Pixel Number: at least 786,432 dots (1024 x 768) x 3				
	☐Color Brightness: 3.600 lumen- 2.235 lumen (economy) In accordance with IDMS15.4				
	☐Aspect ratio: 4:3				
	☐Lamp Life: ECO Mode up to 5000 hrs				
	☐Normal Mode up to 4000 hrs				
	☐Projection Distance Wide/Tele: 1,8 m - 2,17 m ( 60 inch screen)				
	☐Keystone Correction: Manual				
	☐USB Plug 'n Play: Compatible w/ PC and MAC computers				
	☐Contrast Ratio: 15.000 : 1				
	☐Color Reproduction: 16.77 million color				
76	<b>Micro Card Memory Shield Module</b>	pcs	3	500.00	1,500.00
	☐Power supply voltage: VCC: 4.5-5.5 volt				
	☐Electric Current: 0.2 – 200 mA				
	☐Interface level: 3.3 or 5 V				
	☐Support Card Type:Micro SD Card (<=2G) micro SDHC cards (<= 32G)				
	☐Compatibility: Arduino				
	☐Communication interface: Standard SPI interface				
	☐Number of pins: Six (GND,VCC,MISO,MOSI,SCK,CS)				
77	<b>Microsoft Office Home &amp; Student 2019, 1 Perpetual License, Medialess</b>	pcs	3	7,500.00	22,500.00
	☐One-time purchase for 1 PC or Mac				
	☐Classic 2019 versions of Word, Excel, and PowerPoint				
	☐Microsoft support included for 60 days at no extra cost				
	☐Licensed for home use				
78	<b>Mouse, Wired, Optical, USB</b>	pieces	30	210.00	6,300.00
	☐USB Port Connectivity				
	☐Sensor: Optical				
	☐DPI: 1600				



	☑Work method: Wired				
	☑Buttons: Left button, middle button, right button				
	☑Scroll wheel direction: Two way				
	☑Design highlights: Easy installation. 1600 DPI high-definition tracking engine. Anti-slip scroll wheel. Full-size, ambidextrous design				
79	<b>Non-contact water level sensor</b>	pcs	6	600.00	3,600.00
	Interface:Gravity Digital				
	Operating Voltage (InVCC) : DC 5 ~ 24 v				
	Current consumption: 5 mA				
	Output current: 1 ~ 50 mA				
	Response time: 500 ms				
	Operating Temperature : 0 ~ 105 °C				
	Range for thickness of induction (sensitivity): 0 ~ 13 mm				
	Humidity: 5% ~ 100%				
	Material: ABS.				
	Waterproof performance: IP67				
80	<b>Printer, computer, continuous ink system, 4-in-1 (Print, Scan, Xerox copy, Fax with ADF)</b>	unit	2	22,000.00	44,000.00
	Print Method: On-demand ink jet (piezoelectric)				
	Minimum Ink Droplet Volume:3 pl				
	Print Direction: Bi-directional printing, Uni-directional printing				
	Nozzle Configuration: 180 nozzles Black, 59 nozzles per colour (Cyan, Magenta, Yellow)				
	Maximum Resolution: 5760 x 1440 dpi (with Variable-Sized Droplet Technology)				
	USB: USB 2.0				
	Network: Wi-Fi IEEE 802.11b/g/n, Wi-Fi Direct				
	Network Protocol: TCP/IPv4, TCP/IPv6				
81	<b>Printer, Ink Tank, Print Only</b>	unit	4	8,000.00	32,000.00
	☑Printing Technology: On-demand inkjet (Piezoelectric)				
	☑Nozzle Configuration: 180 x 1 nozzles Black, 59 x 1 nozzles per colour (Cyan, Magenta, Yellow)				
	☑Print Direction: Bi-directional printing				
	☑Maximum Print Resolution: 5760 x 1440 dpi (with Variable-Sized Droplet Technology)5760 x 1440 dpi (with Variable-Sized Droplet Technology)				
	☑Minimum Ink Droplet Size: 3 pl				
	☑Compact integrated tank design				
	☑High yield ink bottles				
	☑Spill-free, error-free refilling				
	☑Borderless printing up to 4R				
82	<b>Printer, Tank Ink System, 3 in 1 (Print, Scan, Copy)</b>	unit	7	11,000.00	77,000.00
	☑Tank Ink System				
	☑Printer Type: Print, Scan and Copy				



	☑Scanner Type: Flatbed colour image scanner				
	☑Sensor Type: CIS				
	☑Optical Resolution: 600 x 1200 dpi				
	☑Copy Speed: Maximum Copies from Standalone: 20 copies				
	☑Maximum Copy Size: A4, Letter				
	☑ISO 29183, A4 Simplex Flatbed (Black / Colour): Up to 7.0 ipm / 1.7 ipm				
	☑Max Copy Resolution: 300 x 300 dpi				
	☑Paper Handling: Up to 20 Sheets-Premium Glossy Photo Paper 10 Sheets-Envelope, 30 Sheets-Postcard				
	☑Output Capacity: Up to 30 sheets				
	☑A4 plain paper: 20 sheets, Premium Glossy Photo Paper				
	☑Maximum Paper Size: 215.9 x 1200 mm (8.5 x 47.24")				
	☑Nozzle Configuration: 180 x 1 nozzles Black, 59 x 1 nozzles per colour (Cyan, Magenta, Yellow)				
	☑Print Direction: Bi-directional printing				
	☑Maximum Print Resolution: 5760 x 1440 dpi (with Variable-Sized Droplet Technology)5760 x 1440 dpi (with Variable-Sized Droplet Technology)				
	☑Minimum Ink Droplet Size: 3 pl				
83	<b>Projector Screen</b>	pc	1	15,000.00	15,000.00
	☑manual pull-down with a speed control mechanism				
	☑Ceiling/Wall Mount				
	☑Aspect Ratio 16:9				
	☑Screen Height at least 2030mm				
	☑Screen at least Width 1145mm				
	☑Metal casing				
84	<b>Rechargeable Wireless Keyboard and Mouse Set</b>	unit	11	950.00	10,450.00
	☑Rechargeable Office Wireless Keyboard and Mouse Set				
	☑Size: 284*121*16.mm				
	☑Weight: 280g				
	☑Connection method: USB receiver/Bluetooth				
85	<b>Ribbon Cartridge EPSON S015639</b>	pieces	14	165.00	2,310.00
86	<b>RJ-45 Connector for CAT5 CAT6 Cables</b>	pcs	100	10.00	1,000.00
	RJ45 Stranded Modular Connectors				
	50 micron Gold plating				
	Works with most RJ45 Crimp Tools				
87	<b>RJ45 RJ11 LAN cable tester</b>	unit	3	400.00	1,200.00
	☑Professional RJ45 RJ11 LAN Cable Network Cable Detector Tool Kit				
88	<b>Selfie LED Ring Light 10" with Tripod</b>	unit	2	500.00	1,000.00
	Material: ABS+ aluminum alloy				
	Lighting: warm and cold light				
	Modes: three color light adjustment (can adjust brightness)				
	Working temperature: less than 45°C, no hot hazard, safe to touch				



	Tripod stand height: up to 210cm				
89	<b>Soldering Iron Kit set with carrying bag</b>	set	1	1,200.00	1,200.00
	Work Voltage: 220V				
	Power: 60W				
	Temp Rang: 200°C - 450 °C				
	Tweezers: ESD-15, Length 4.7inches				
	Soldering Iron Stand: Steel				
	Tips Model: 5 pcs, 900M series				
	Desoldering Pump: Plastic and aluminum alloy				
	Carrying bag: Fabric				
	The working temperature is continuously adjustable between 200~450°C.				
90	<b>Solenoid Valve, 1/2" NPS, Brass</b>	pcs	3	600.00	1,800.00
	Working Liquid Pressure: 0 Mpa - 1.0 Mpa (140 PSI)				
	Working Temperature: -5°C - 80 °C				
	Actuating life: ≥ 50 million cycles				
	Actuating voltage: 12VDC				
91	<b>Solenoid valve, 1/2" NPS, plastic water valve</b>	pcs	3	300.00	900.00
	1/2" Nominal NPS				
	Material: Plastic				
	Working Pressure: Inlet Valve: 0.02 Mpa - 0.8 Mpa;				
	Drainage Valve: 0-0.2 Mpa				
	Working Temperature: 1 °C - 75 °C				
	Response time (open): ≤ 0.15 sec				
	Response time (close): ≤ 0.3 sec				
	Actuating voltage: 12VDC				
	Actuating life: ≥ 50 million cycles				
92	<b>Speaker, for PC, 2.1 (Speaker with Subwoofer)</b>	pc	1	1,500.00	1,500.00
	☑Power Output : rms 4.5wx2 sw: 12w				
	☑Signal to noise ratio : 80dba				
	☑Frequency Response : 80hz~20khz (±6db)				
	☑R/I: 300±50mv sw: 100 ± 20mv				
	☑Aux/USB/SD card				
	☑Bass driver :4 inch				
	☑Treble driver :2 3/4 inch				
93	<b>Studio Monitors, 2-way active (Pair Left and Right Speaker)</b>	set	1	17,500.00	17,500.00
	Frequency Response: 70 Hz-20 Khz				
	LF amplifier: 5 W/speaker				
	Peak SPL (@1 meter ): 100dB				
	LF Driver: 4.5" Kevlar				
	Kevlar woofer and low-mass silk-dome tweeter				
	Input Impedance: 10 K ohms				
	Power: 100-120V-50/60 Hz				
	Monitor calibration				
	25W Class AB amplification per speaker				
	Balances 1/4" TRS, unbalance 1/8" TS,				



	RCA, and bare-wire inputs				
	1/8" stereo headphone output				
	Acoustic Space settings				
	Acoustic Tuning controls let you flatten response for mixing accuracy				
94	<b>Temperature and Humidity Sensor, DHT22</b>	pcs	6	350.00	2,100.00
	Sensing element				
	polymer capacitor				
	Power supply				
	3.3 to 6V DC				
	Operating range				
	0-100% RH;				
	-40 to 80 celsius Temp				
	Dimension				
	22 x 28 x 5 mm				
95	<b>Universal HDMI to VGA Adapter Cable, at least 1.8 meters</b>	unit	3	300.00	900.00
96	<b>UPS, 1000 VA</b>	unit	21	3,000.00	63,000.00
	■1000VA/600W capacity				
	■Frequency Range: 60 Hz				
	■Freq. Range (Batt. Mode): 60 Hz ± 1 Hz				
	■Transfer Time: Typical 4-8 ms				
	■Waveform (Batt. Mode): Simulated Sine Wave				
	■Back-up Runtime: 10-15 mins				
	■Voltage: 220 VAC				
	■Voltage Range: 162-270 VAC				
97	<b>UPS, 650VA, Universal Sockets</b>	pc	2	2,800.00	5,600.00
	Output Power Capacity: 325 Watts/650VA				
	Output Frequency: 50/60 Hz +/-1 Hz				
	Output Connections: (2) Universal Receptacle				
	Nominal Input Voltage: 230V				
	Input Connections: NEMA 5-15P				
	Maximum Input Current: 5A				
	Battery Type: Maintenance-free sealed Lead-Acid battery with suspended electrolyte leakproof				
	Recharging Time: 4 Hours				
98	<b>UPS, at least 500 w</b>	piece	3	2,550.00	7,650.00
	Recharging Time: at most 4 Hours				
99	<b>UPS, at least 800 watts</b>	unit	12	5,000.00	60,000.00
	Recharging Time: at most 4 Hours;				
100	<b>UPS, Battery Back-up Power Supply</b>	unit	2	3,800.00	7,600.00
	Input: 220Vac. 50/60Hz, 4.5A Max				
	Output: 220Vac, 50/60Hz. 2.6A Max				
	Capacity: 650Vac/ 390W				
101	<b>USB Hub, 4 gangs</b>	piece	4	250.00	1,000.00
102	<b>Voice Recorder</b>	pc	1	4,500.00	4,500.00
	Built-in, Direct USB connection for quick file transfer to PC				
	Expand memory with the micro SD card slot Up to 55 hours of battery life for extended recording Adjustable microphone range for clearer voices Auto voice recording reduces				



	background noise				
	size AAA alkaline batteries (2)				
	Just plug straight into a free USB port for an immediate connection—no USB cable needed.				
103	<b>VOIP Phone</b>	unit	1	6,000.00	6,000.00
	☐1-Line PoE+ SIP VOIP Phone SPA MAC address (IEEE 802.3) with lifetime warranty				
	☐IPv4 (RFC 791)Integrated web server provides web-based administration and configuration				
	☐Telephone keypad configuration via display menu/navigation				
	☐Automated provisioning and upgrade via HTTPS, HTTP, TFTP				
	☐Asynchronous notification of upgrade availability via NOTIFY				
	☐Nonintrusive in-service upgrades				
	☐Report generation and event logging				
	☐Statistics transmitted in BYE message				
	☐Syslog and debug server records: configurable per line				
	☐Address Resolution Protocol (ARP)				
	☐DNS: A record (RFC 1706), SRV record (RFC 2782)				
	☐Dynamic Host Configuration Protocol (DHCP) client (RFC 2131)				
	☐Internet Control Message Protocol (ICMP) (RFC 792)				
	☐TCP (RFC 793)				
	☐User Datagram Protocol (UDP) (RFC 768)				
	☐Real-Time Transport Protocol (RTP) (RFC 1889, 1890)				
	☐Real-Time Control Protocol (RTCP) (RFC 1889)				
	☐Differentiated Services (DiffServ) (RFC 2475)				
	☐Type of service (ToS) (RFC 791, 1349)				
	☐VLAN tagging 802.1p/Q: Layer 2 quality of service (QoS)				
	☐Simple Network Time Protocol (SNTP) (RFC 2030)SIP version 2 (RFC 3261, 3262, 3263, 3264)				
	☐SPCP with the Cisco Unified Communications 500 Series				
	☐SIP proxy redundancy: dynamic via DNS SRV, A records				
	☐Reregistration with primary SIP proxy server				
	☐SIP support in NAT networks (including STUN)				
	☐SIPFrag (RFC 3420)				
	☐Secure (encrypted) calling via SRTP				
	☐Codec name assignment				
	☐Voice algorithms:				
	☐G.711 (A-law and $\mu$ -law)				
	☐G.726 (16/24/32/40 kbps)				



	☐G.729 A				
	☐G.722				
	☐Dynamic payload support				
	☐Adjustable audio frames per packet				
	☐Dual-tone multifrequency (DTMF), in-band and out-of-band (RFC 2833) (SIP INFO)				
	☐Flexible dial plan support with interdigit timers				
	☐IP address/URI dialing support				
	☐Call progress tone generation				
	☐Jitter buffer: adaptive				
	☐Frame loss concealment				
	☐Comfort Noise Generation (CNG)				
	☐Voice activity detection (VAD) with silence suppression				
	☐Attenuation/gain adjustments				
	☐VMWI - Voicemail Waiting Indicator, via NOTIFY, SUBSCRIBE				
	☐Caller ID support (name and number)				
	☐Third-party call control (RFC 3725)				
	☐Should be compatible with existing fleet of VSU IP Phones (CISCO)				
104	<b>Web Camera for Laptop and Desktop</b>	pcs	2	720.00	1,440.00
	☐About 360 degrees, rotate up and down 45 degrees, you can adjust the angle.				
	☐With clips for laptops and desktops.				
	☐Sensor pixels: 2 million				
	☐Interface: USB 2.0				
	☐Frame rate: 30 FPS				
	☐Image sensor: CMOS				
	☐Brightness/color: automatically adjusts				
	☐Additional features: built-in microphone				
105	<b>Web Camera for PC</b>	unit	1	2,500.00	2,500.00
	☐Image sensor: 1 / 2.9				
	☐Lens: 3.6mm/75.7 °				
	☐Effective pixel: 1932 (H) * 1088 (V)				
	☐Horizontal resolution: 2MP				
	☐SNR: > 50dB				
	☐Video stream: H.264:1920 * 1080 / 1920 * 720 / 640 * 360 MJPEG: 1920 * 1080 / 1920 * 720 / 640 * 360				
	☐Video Frame rate: 25FPS / 30FPS				
	☐Electronic shutter: Auto				
	☐Protocol: UVC / UVA				
	☐Video output: USB video stream				
	☐Working voltage: DC5V / 160mA ± 6mA				
	☐Working environment: -20 °C to 60 °C				
106	<b>Wireless Access Point</b>	unit	4	11,00.00	44,000.00
	☐Networking Interface (1) 10/100/1000 Ethernet Port				
	☐Buttons Reset				
	☐Power Method 802.3af PoE				
	☐Power Supply UniFi Switch (PoE)				
	☐Power Save Supported				
	☐Beamforming Supported				



	☑Maximum Power Consumption 10.5W				
	☑Supported Voltage Range 44 to 57VDC				
	☑TX Power				
	☑2.4 GHz				
	☑5 GHz				
	☑23 dBm				
	☑26 dBm				
	☑MIMO				
	☑2.4 GHz				
	☑5 GHz				
	☑2x2				
	☑4x4				
	☑Radio Rates				
	☑2.4 GHz				
	☑5 GHz				
	☑300 Mbps				
	☑1733 Mbps				
	☑Antennas				
	☑2.4 GHz				
	☑5 GHz				
	☑(2) Single-Port, Single-Polarity Antennas, 2.8 dBi each				
	☑(2) Single-Port, Dual-Polarity Antennas, 3 dBi each				
	☑Wi-Fi Standards 802.11 a/b/g/n/r/k/v/ac/ac-wave2				
	☑Wireless Security WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES), 802.11w/PMF				
	☑BSSID 8 per Radio				
	☑Mounting Wall/Ceiling (Kits Included)				
	☑Operating Temperature -10 to 70° C (14 to 158° F)				
	☑Operating Humidity 5 to 95% Noncondensing				
	☑Certifications CE, FCC, IC				
	☑Advanced Traffic Management				
	☑VLAN 802.1Q				
	☑Advanced QoS Per-User Rate Limiting				
	☑Guest Traffic Isolation Supported				
	☑WMM Voice, Video, Best Effort, and Background				
	☑Concurrent Clients 200+				
	☑Supported Data Rates (Mbps)				
	☑Standard Data Rates				
	☑802.11a 6, 9, 12, 18, 24, 36, 48, 54 Mbps				
	☑802.11n 6.5 Mbps to 300 Mbps (MCS0 - MCS15, HT 20/40)				
	☑802.11ac 6.5 Mbps to 1.7 Gbps (MCS0 - MCS9 NSS1/2/3/4, VHT 20/40/80)				
	☑58 Mbps to 1.7 Gbps (MCS0 - MCS9 NSS1/2, VHT 160)				
	☑802.11b 1, 2, 5.5, 11 Mbps				
	☑802.11g 6, 9, 12, 18, 24, 36, 48, 54 Mbps				
	☑Should be compatible with existing				



	UniFi Controller				
107	<b>Wireless Optical Mouse</b>	pcs	1	1,000.00	1,000.00
	Adjustable 500/1000 DPI high-definition tracking engine				
	Reliable 2.4GHz wireless connection, perfect for anti-jamming				
	Supports 4D scroll wheel and optical buttons No installation software or drivers required: plug and play				
	Powered by AA alkaline batteries, you can use this mouse with only one battery				
108	<b>ATX Power Supply (500W)</b>	pcs	10	980.00	9,800.00
	■Single 6pin				
	■24pin connector				
	■Dual 4pin for board				
	■4 sata supply				
	■4 molex supply				
109	<b>External Hard Drive, 1 TB</b>	unit	1	3,000.00	3,000.00
	Capacity: 1TB				
	Connection interface: USB 2.0/3.0				
	Storage Media: 2.5" SATA HDD				
	Op. Voltage: USB DC 5V				
	Size :129.5mm x 82.4mm x 20.4mm				
	Weight: 216g				
110	<b>Router, Wireless</b>	pc	1	4,900.00	4,900.00
	■Enjoy the benefits of Wireless-N300 (802.11n) in your home ideal for surfing the web, emailing and printing wirelessly				
	■Connect your computers, wireless printers, smartphones, and other wireless devices at up to 300 Mbps transfer speed				
	■Enjoy broad wireless coverage provided by MIMO antenna technology				
	■Use four Fast Ethernet (10/100 Mbps) ports to directly connect wired devices				
	■Keep your network protected with customizable security settings, including WPA/WPA2 Personal and SPI firewall protection				
111	<b>Epson L6290 001 Ecotank Ink Black</b>	btls	5	400.00	2,000.00
112	<b>Epson L6290 001 Ecotank Ink Yellow</b>	btls	5	400.00	2,000.00
113	<b>Epson L6290 001 Ecotank Ink Magenta</b>	btls	5	400.00	2,000.00
114	<b>Epson L6290 001 Ecotank Ink Cyan</b>	btls	5	400.00	2,000.00
115	<b>Ink, EPSON T9481 XL for WF-C878R Printer, Black</b>	tubes	10	1,500.00	15,000.00
116	<b>Ink, EPSON T9481 XL for WF-C878R Printer, Cyan</b>	tubes	2	1,500.00	3,000.00
117	<b>Ink, EPSON T9481 XL for WF-C878R Printer, Magenta</b>	tubes	10	1,500.00	15,000.00
118	<b>Ink, EPSON T9481 XL for WF-C878R Printer, Yellow</b>	tubes	2	1,500.00	3,000.00
119	<b>EPSON label tape cartridge compatible for Epson Label Works LW-700, white on clear, 12mmx9m</b>	pc	6	500.00	3,000.00



120	<b>Global Positioning System (GPS)</b>	unit	1	25,000.00	25,000.00
	4-inch dual-orientation, glove friendly touchscreen display; 8 megapixel autofocus camera; automatically geotags photos; tracks both GPS and GLONASS satellites; 1-year birds Eye Satellite Imagery subscription; 3-axis compass with barometric altimeter				
121	<b>Laser Printer, 4 in 1 Print, Scan, Copy, Fax with WiFi Connectivity and Duplex Printing</b>	unit	1	60,000.00	60,000.00
	Technology: Colour Laser				
	Engine speed: Up to 21 pages A4 per minute in colour and b/w				
	Resolution: 1,200 x 1,200 dpi print at reduced speed, multibit technology for print quality up to 9,600 x 600 dpi (print), 600 x 600 dpi, 256 greyscales per colour (scan/copy)				
	Warm-up time: Approx. 32 seconds or less				
	Time to first print: Approx. 11/12.5 seconds or less in b/w / colour				
	Time to first copy: Approx. 10/12 seconds or less in b/w / colour				
	General memory: Standard 512 MB, Max. 1,536 MB				
	Input capacity:50-sheet multi-purpose tray, 60-220 g/m <sup>2</sup> , A4, A5, A6, B5, Letter, Legal, Folio, Envelopes, Custom (70 x 148 to 216 x 356 mm), 250-sheet universal paper cassette, 60-163 g/m <sup>2</sup> , A4, A5, A6, B5, Letter, Legal, Folio, Custom (105 x 148 to 216 x 356 mm)				
	Max. input capacity with options: 550 sheets				
	Duplex unit: Duplex as standard supports 60-120 g/m <sup>2</sup>				
	Max. output capacity: 150 sheets face- down				
	Document processor: 50-sheet, Simplex scan 50-160 g/m <sup>2</sup> , Duplex scan 50-110 g/m <sup>2</sup> , A4, A5, A6, B5, Letter, Legal, Custom (105 x 148 mm to 216 x 356 mm)				
	Processor: Cortex A9, 800MHz				
	Controller language: PRESCRIBE IIc Emulations PCL 6 (5c/XL), KPD 3 (PostScript 3 compatible), PDF Direct Print, XPS Direct Print Fonts				
	Applicable OS: All current Windows operating systems, MAC OS X Version 10.8 or higher, Unix, Linux				
	Max. original size: A4/Legal				
	Digital copy features: Auto Colour Mode, Scan-once-copy-many, electronic sort, 2in1, 4in1, ID-card copy, priority print, program, auto duplex				



	copy, continuous scan, auto cassette change, copy density control				
	Zoom range: 25 - 400 % in 1% steps				
	Continuous copy: 1 - 999 (When optional memory is installed)				
	Compression format: MMR/JPEG				
	File type: TIFF, PDF, PDF/A, JPG, XPS				
	Scan resolution: 600, 400, 300, 200 dpi (256 grey scales per colour)				
	Scan speed: 30 ipm (300 dpi, A4, b/w), 23 ipm (300 dpi, A4, colour)				
	FAX Compatibility: ITU-T Super G3				
	Modem speed: Max. 33.6 kbps				
	Scanning speed: 2 seconds or less				
	Transmission speed: 3 seconds or less				
	Standard interface: USB 2.0 (Hi-Speed), USB Host Inter-face, Gigabit Ethernet 10BaseT/100BaseTX/1000BaseT), Wireless LAN, Slot for optional SD/SDHC-Card				
122	<b>Projector, Ultra portable Wireless Full HD</b>	unit	2	79,000.00	158,000.00
	☑Projection Technology: RGB liquid crystal shutter projection system				
	☑Auto Iris:10,000:1				
	☑White Light Output (Normal): at least 3,200lm				
	☑Colour Light Output:(Normal / Eco): at least 3,200lm / 1,900lm				
	☑Network: Wireless LAN; In-built				
	☑Analog Input: D-Sub 15 pin; 1(Blue);Composite; RCA x 1				
	☑Digital Input: HDMI; 1(MHL)				
	☑Audio Input: Stereo Mini Jack: 1				
	☑Others: USB Type A: 1 (for USB Memory, USB Document Camera, Firmware Update)				
	☑USB Type B: 1 (for USB Display, mouse, K/B/, Control, Firmware Update)				
	☑Supported Speed for Each Mode: IEEE 802.11b: 11 Mbps				
	☑IEEE 802.11g: 54 Mbps				
	☑IEEE 802.11n: 130.0 Mbps				
	☑Wireless LAN Security: Quick Mode: WPA2-PSK				
	☑Advanced Mode: WPA2-PSK, WPA/WPA2-PSK, WPA2-EAP				
	☑Supported EAP type: PEAP, PEAP-TLS, EAP-TLS, EAP-Fast, LEAP				
	☑Supported Connection Mode: Infrastructure, Access Point				
	☑Operating Temperature:5°C - 40°C < 41°F - 104°F> (0 m / 0 ft to 2,286m / 7,500ft)				
	☑5°C - 35°C < 41°F - 95°F> (over 2,286m / 7,500ft) (20% - 80% humidity, No condensation)				
	☑Operating Altitude:0m - 3,000m (0ft - 9,843 ft) (over 1,500m / 4,921ft: with				



	high altitude mode)				
	☑Start-Up Period: About 7.2 seconds, Warm-up period: 30 seconds				
	☑Cool Down Period: Instant off				
	☑Sound Output: Monaural: 1W X 1				
	☑Direct Power On/Off: Yes/Yes				
	☑Dimension Excluding Feet (W x H x D):292mm x 44mm x 213mm				
	☑Fan Noise (Normal / Eco):39 dB / 30dB				
	☑Supported Speed for Each Mode: IEEE 802.11g (2.4GHz): 54Mbps				
	☑IEEE 802.11n (2.4GHz): 130.0 Mbps				
	☑IEEE 802.11a (5GHz): 54 Mbps				
	☑IEEE 802.11n (5GHz): 270.0 Mbps				
	☑IEEE 802.11ac (5GHz): 780 Mbps				
	☑Supported Connection Mode: Wi-Fi Direct				
123	<b>Network infrastructure</b>	lot	1	1,150,000.00	1,150,000.00
	Specification:				
	<i>Network Switches (2 units)</i>				
	Units-HP 1930 (Based on VSU existing HP fleet of network equipment)				
	• 24 ports				
	• Layer 3				
	<i>Network Switches (10 units)</i>				
	Unifi PoE 24 port Switch (Based on existing Unifi switch fleet of networking equipment)				
	• Unifi USWPro 24 port PoE				
	• Gigabit speed				
	• (1) 1.3" LCM color touchscreen with AR switch management				
	• (24) GbE RJ45 ports				
	• (2) 10G SFP+ ports				
	• (1) USP RPS DC Input				
	• Layer 3 Switching feature				
	• Total Non-Blocking Throughput: 44Gbps				
	• Switching Capacity: 88 Gbps				
	• Forwarding Rate: 65:472 Mpps				
	• USP RPS DC Input 100-240 VAC, 50/60 Hz, 11.5VDC, 2.61A				
	• Max Power Consumption 30W				
	<i>Network WiFi Access Points (15 units)</i>				
	Unifi Nano HD				
	Existing fleet of VSU WiFi Access Points				
	<i>Network IP Phones (9 units)</i>				
	Cisco CP-6821 same existing fleet of VSU IP Phones				
	<i>IP Network Camera (15 units)</i>				
	Hikvision, Dome type camera, 4 Mega Pixel IP67 (Same brand of Existing VSU fleet camera)				
	<i>Uninterruptible Power Supply (8 units)</i>				
	1000 watts, 1500VA, Universal type of				



outlet, built-in AVR				
<i>Data Cabinet 6U (2 units)</i>				
ISO compliant				
<i>Networkable Public Address System (1 LOT)</i>				
Multi-interface Unit complete with compatible amplifier and power supply system.				
<ul style="list-style-type: none"> <li>• Power Source: 230 V AC, 50/60Hz</li> </ul>				
<ul style="list-style-type: none"> <li>• Audio Input: 2 inputs (2P/input), Max 0dBV, under 600Ohms balanced, with a semi-fixed volume for adjustment (0 to 25 dB), Control: 2 inputs (2P/input), no-voltage make contact input, open voltage 12VDC, short-circuit current 10mA Removable terminal block (8 pins).</li> </ul>				
<ul style="list-style-type: none"> <li>• Audio Output: 2 outputs (2P/output). Max 0 dBV, under 600Homs balanced, Control: 2 outputs ( 2P/output), contact capacity: 24V DC/0.5A, Removable terminal block (8 port)</li> </ul>				
<ul style="list-style-type: none"> <li>• Contact input: 16 inputs, no-voltage make contact input open voltage 12V DC. Short-circuit current 10mA removable terminal block (18 pins) (1 common terminal for 4 inputs).</li> </ul>				
<ul style="list-style-type: none"> <li>• Contact Output 16 outputs, relay contact output, contact capacity 24V DC/0.5a, Removable terminal block (18 pins).</li> </ul>				
Network Section:				
<ul style="list-style-type: none"> <li>• Network I/F: 10BASE-T/100BASE-TX (automatic negotiation)</li> </ul>				
<ul style="list-style-type: none"> <li>• Network Protocol: TCP/IP, UDP, ARP, ICMP, HTTP, RTP, IGMP</li> </ul>				
<ul style="list-style-type: none"> <li>• Audio Packet Transmission System: Unicast, Multicast</li> </ul>				
<ul style="list-style-type: none"> <li>• Voice Packet Loss Recovery: Silence insertion</li> </ul>				
<ul style="list-style-type: none"> <li>• Audio Delay Time: 80ms, 320 ms(controllable on the software)</li> </ul>				
Compatible amplifier system complete with Power supply, reflex horn speaker and wire.				
<ul style="list-style-type: none"> <li>• EN54 certified</li> </ul>				
<ul style="list-style-type: none"> <li>• UL Certified</li> </ul>				
<ul style="list-style-type: none"> <li>• 6 Zone</li> </ul>				
<ul style="list-style-type: none"> <li>• Fully compatible to Multi-interface unit</li> </ul>				
<ul style="list-style-type: none"> <li>• rated output: 360Watts</li> </ul>				
<ul style="list-style-type: none"> <li>• Frequency Response: 50Hz to 20Khz +/- 3dB</li> </ul>				
<ul style="list-style-type: none"> <li>• Distortion : under 0.7% (at rated output 1kHz)</li> </ul>				
<ul style="list-style-type: none"> <li>• Signal to Noise Ratio: Over 85 dB</li> </ul>				
<ul style="list-style-type: none"> <li>• Inputs: Input 1 - 3: -50 dB* (MIC)/-10 dB* (LINE) (changeable), 600 Ω,</li> </ul>				



	electronically balanced, combined XLR connector (female)/phone jack				
	Input 4: -50 dB* (MIC)/-10 dB* (LINE) (changeable), 600 Ω, electronically balanced, removable terminal block (14 x 2 pins)				
	BGM 1 - 2: -10 dB*, 10 kΩ, unbalanced, RCA pin jack				
	External amplifier input: 100 V line, removable terminal block (14 pins)				
	• Output: Speaker output 1 - 2: Max. (360 W) per output				
	Speaker output 3 - 6: Max. (120 W) per output				
	Speaker output 1 - 6: Total within 360 W, removable terminal block (14 pins)				
	Allowable minimum load: 500 Ω (20 W) at 100 V line for speaker line failure detection				
	Direct output: Direct output from internal or external amplifier, removable terminal block (16 pins) Recording output BGM/Paging: 0 dB*, 10 kΩ, unbalanced, RCA pin jack				
	• RM Link : Input 1 - 2: Connecting the RM-300MF/RM-200M Remote Microphone.				
	RJ45 female connector				
	Maximum distance: Total 800 m (874.89 yd) between this unit and remote microphones				
	Link cable: Category 5 Shielded Twisted-Pair straight cable (CAT5-STP)				
	• Network I/F: 10BASE-T / 100BASE-TX (selectable by automatic negotiation), RJ45 female connector				
	Maximum distance: 100 m (109.36 yd) between this unit and a switching hub				
	Link cable: Category 5 Shielded Twisted-Pair straight cable (CAT5-STP)				
	• VM Link: Output: Connecting the VM-3240E or VM-3360E, RJ45 female connector				
	Maximum distance: 800 m (874.89 yd)				
	Link cable: Category 5 Shielded Twisted-Pair straight cable (CAT5-STP)				
	• Ext PA Link: Connecting the VP-2421, RJ45 female connector Maximum distance: 5 m (16.4 ft) Link cable: Category 5 Shielded Twisted-Pair straight cable (CAT5-STP)				
	• General Control: Input 1 - 8: No-Voltage make contact input, open voltage: 24 V DC, short-circuit current: 2 mA or less, removable terminal block (14 x 2 pins)				
	Output 1 - 8: Isolated open collector				



	output, withstand voltage: 30 V DC, operating current: 10 mA or less, removable terminal block (14 x 2 pins)				
	<ul style="list-style-type: none"> <li>Emergency Control System: Input 1 - 5: No-Voltage make contact input, open voltage: 24 V DC, short-circuit current: 2 mA or less, RJ45 female connector Input 6: Isolated voltage input, Inactive: -24 V ±20 %, Active: +24 V ±20 %, RJ45 female connector Status out: Relay contact output, withstand voltage: 40 V DC, operating current: 2 - 300 mA, RJ45 female connector.</li> </ul>				
	<ul style="list-style-type: none"> <li>ATT Control: Relay contact 1-6, 125 V AC or 30 V DC, total under 5 A, removable terminal block (16 pins)</li> </ul>				
	<ul style="list-style-type: none"> <li>Power Input/Output: Power in: Connecting the VX-2000DS only (operating range: 20 - 40 V DC) PS out: 28 V DC/24 A, M4 screw terminal, distance between barriers: 11 mm (0.43")</li> </ul>				
	<ul style="list-style-type: none"> <li>DC 24V Output: 24 V DC, Maximum feeding current 0.3 A</li> </ul>				
	<ul style="list-style-type: none"> <li>DS Link: Connecting the VX-2000DS, RJ45 female connector Maximum distance: 5 m (16.4 ft)</li> </ul>				
	Link cable: Category 5 Shielded Twisted-Pair straight cable (CAT5-STP)				
	<ul style="list-style-type: none"> <li>Operating Temperature: -5 °C to +45 °C (23 ° F to 113 ° F)</li> </ul>				
	<ul style="list-style-type: none"> <li>Complete with input transformer</li> </ul>				
	<ul style="list-style-type: none"> <li>Accessory: Power cable (2 m (6.56 ft)) ...1, Setting software-CD ...1, Link cable (3 m (9.84 ft)) ...2, Removable terminal plug (14 pins)...3, Removable terminal plug (16 pins) ...1, Emergency microphone (hand-held type) ...1</li> </ul>				
	<ul style="list-style-type: none"> <li>Compatible with the existing network services using TCP/IP protocol.</li> </ul>				
	<i>Reflex Horn Speaker (12 Units), 30 watts</i>				
	<i>Speaker wire (10 Spool) for horn speaker complete with mounting bracket,</i>				
	<ul style="list-style-type: none"> <li>WAN capable ready for Multi-campus with multi-building application.</li> </ul>				
	<ul style="list-style-type: none"> <li>6 zones</li> </ul>				
	<ul style="list-style-type: none"> <li>Campus wide time annunciator, BGM and bldg EVAC(hourly) via PA system. Per building or all the buildings.</li> </ul>				
124	<b>Desktop Computer with Monitor, Assembled, Core i5 12Gen, 8GB RAM, GTX 1050Ti</b>	lot	1	2,790,000.00	2,790,000.00
	Desktop Computer (60 units)				
	Processor: Intel® i5-12400 Total Cores:				



	6, Threads: 12, Max Turbo Frequency: 4.40Ghz, Performance Core Base Frequency: 2.5Ghz, Cache: 18MB, Processor Graphics: Intel® UHD Graphics 730 or higher				
	Motherboard: Intel® H610 Chipset for 12th Gen Intel® Core™ Series Processors, Dual Channel Non-ECC Unbuffered DDR4, 2 DIMMs, 6+1+1 Hybrid Digital VRM Design, Intel® GbE LAN, NVMe PCIe 3.0 x4 M.2, High Quality Audio Capacitors and Audio Noise Guard, mATX form factor or higher				
	RAM: 8GB DDR4 3200 MHz CL16, Intel® XMP-ready and XMP Certified, Low-profile heat spreader design or higher				
	SSD: 512 GB M.2 2280 Form Factor PCIe Gen3x4 Interface, read up to :1700 MB, write up: 1550 MB/s or higher				
	Casing: mATX/ATX casing with transparent acrylic side panels and Cooler Fan Support: front panel 3*120mm/top 2*120mm/rear 1*120mm				
	Graphics Processor: Nvidia GTX 1050 TI 4GB GDDR5 128 bit(DVI/HDMI/DP)				
	PSU:500w, True Rated Power Supply 80 plus Bronze Rated PSU for Micro ATX and ATX casing or higher				
	Monitor: 24" In Plane Switching (IPS), Full HD 1920x1080 Resolution, Response Time: 5ms, Refresh Rate: 75Hz, Brightness: 250 cd/m2				
	Keyboard and Mouse Combo: Spill-resistant design with up to Up to 5 million keystrokes keyboard and full-sized ambidextrous optical mouse				
	Operating System: Genuine Windows 10 or higher <b>with certificate of Authenticity</b>				
	<i>Provision of MATLAB EDUCATION (for academic use) license for 2 desktop units. - 90,000</i>				
125	<b>Desktop Computer, AMD Ryzen 5 5600G, 8GB RAM, RTX 3050</b>	set	6	60,000.00	360,000.00
	Processor: AMD Ryzen 5 5600G 6 Cores & 12 Threads, 3.9 GHz Base Clock,4.4 GHz Max Boost Clock, Socket AM4, 3MB L2 & 16MB L3 Cache or higher				
	Motherboard: AMD B550 Chipset Ultra Durable Motherboard with 5+3 Phases Pure Digital VRM Solution with Low RDS(on) MOSFETs, PCIe 4.0 x16 Slot, Dual PCIe 4.0/3.0 M.2 Connectors, Realtek GbE LAN, High Quality Audio Capacitors and Audio Noise Guard for Ultimate Audio Quality or higher				



	RAM: 8GB 3200 MHz DDR4 CL16, Intel® XMP-ready and XMP Certified, Ready for AMD Ryzen™, Low-profile heat spreader design or higher				
	SSD: 512GB PCIe Gen3x4 interface: 3300MB/s read and 3000MB/s write - M.2 2280 form factor with 3D NAND or higher				
	Graphics Processor: RTX 3050 Dual 8GB GDDR6, Memory Interface 128 bit, DRAM Type GDDR6, Graphics Clock 1552 MHz, Boost Clock 1777 MHz, CUDA Cores 2560				
	PSU: 600W Bronze 80 PLUS Bronze Certified, 24/7 continuous power output with Active PFC Circuitry or higher				
	Casing: mATX/ATX casing with transparent acrylic side panels and Cooler Fan Support: front panel 3*120mm/top 2*120mm/rear 1*120mm				
	Monitor: 24" In Plane Switching (IPS), Full HD 1920x1080 Resolution, Response Time: 5ms, Refresh Rate: 75Hz, Brightness: 250 cd/m2 or higher				
	Keyboard and Mouse Combo: Spill-resistant design with up to Up to 5 million keystrokes keyboard and full-sized ambidextrous optical mouse				
	Operating System: Genuine Windows 10 or higher				
126	<b>Desktop Computer, Core i9 12th Gen, 32GB RAM, RTX 3070Ti, no Monitor</b>	units	2	150,000.00	300,000.00
	CPU: Intel® Core™ i9-12900KF Processor, 16c (8P+8E), 3.2P-core / 2.4E-core, Up to 5.1P-core / 3.9E-core, 30MB L3 Cache, 14MB L2 Cache				
	Motherboard: Intel® Z690 (LGA 1700) ATX motherboard with PCIe® 5.0, four M.2 slots, 16+1 DrMOS power stages, DDR5, HDMI®, DisplayPort™, Intel 2.5 Gb Ethernet, USB 3.2 Gen 2x2 Type-C®, front USB 3.2 Gen 2 Type-C®,				
	GPU: RTX 3070Ti 8GB VRAM, 256 Bit GDDR6x, 6144 Cuda Cores, Core Clock Base: 1575Mhz; Boost: 1770Mhz				
	RAM: 32GB (2x16GB) 3600 MHz DDR4 CL18 Desktop Memory Kit of 2				
	SSD: 1TB Gen4 PCIe M.2 2280				
	PSU: 650W 80+ GOLD Full Modular, Active PFC, Protection: OCP / OVP / OPP / OTP / SCP / UVP				
	Casing: Mid-tower Compact Case for ATX Motherboards with tempered glass side panel, honeycomb front panel, 360mm radiator support				
127	<b>Monochrome and Colored Camera</b>	lot	1	70,000.00	70,000.00
	For Monochrome Camera				
	Camera type (enclosed)				
	4024 x 3036 display resolution				
	USB interface type				



	25 frames per second or about 31 frames per second framerate				
	Video format supported (monochrome)				
	sensor type CMOS				
	with camera driver				
	supports Windows, Linux, macOS				
	For Colored Camera				
	Cameras & Camera Modules with the Sony ICX424 CCD sensor				
	camera type (enclosed)				
	659 x 494 display resolution				
	USB interface type				
	delivers 90 frames per second at VGA resolution				
	Video format supported (Colored)				
	with camera driver				
	supports Windows, Linux, macOS				
128	<b>Ubiquiti Unifi 8 Port PoE+150W SFP Switch</b>	pcs	2	12,000.00	24,000.00
129	<b>SFP SC Transceiver Module 1.25G BIDI 20KM 1310/1550 (PAIR)</b>	pairs	2	1,100.00	2,200.00
130	<b>Laptop Battery</b>	pcs	1	2,500.00	2,500.00
	■Acer Aspire Laptop Battery AL14A32				
				<b>TOTAL:</b>	<b>7,551,405.00</b>

**DILBERTO O. FERRAREN**  
BAC Chairman