

Tender Document

Procurement of IT Equipment

Tender Ref# EPC IT Equipment/02 (2023-2024)



**COMSATS University Islamabad
Abbottabad Campus.**

Table of Contents

1.	Tender Notice.....	3
2.	Key Points.....	3
	Table # 1.....	4
3.	General Terms & Conditions of the Tender.....	4
4.	Contact person and Submission of Bids:	4
5.	Validity of Bids:.....	4
6.	Price of the Bid:.....	5
7.	Bid Currencies & Bid Security:	5
8.	Clarification of Bidding Document:	6
9.	Opening of Bids:.....	6
10.	Influencing the evaluation process:.....	6
11.	Qualification & Evaluation of Bids:	6
12.	Notification of Evaluation Reports:.....	7
13.	Corrupt or Fraudulent Practices & Blacklisting:.....	8
14.	Right to Accept or Reject Bids:	8
15.	Award of Contract:	8
16.	Notification of Award:	8
17.	Delivery Information:.....	9
18.	Legal Document.....	10
19.	Declaration Form	11
20.	Evaluation Criteria:	12
	Table # 2: Mandatory Requirements:.....	12
21.	FINANCIAL PROPOSAL	13
22.	Items Detail Specifications.....	Error! Bookmark not defined.

1. Tender Notice

COMSTS University Islamabad, Abbottabad Campus

Tender Ref # EPC IT Equipment/02 (2023-2024)

Procurement of IT Equipment

1. COMSATS University Islamabad-Abbottabad Campus, a Public Sector University invites Bids through e-Pak Acquisition & Disposal System (EPADS) <https://eprocure.gov.pk> on “Single-Stage Single-Envelope” procedure basis from Income Tax & GST registered Firms/Companies who are on the Active Taxpayer List (ATL) for General Sales Tax and Income Tax of FBR for **procurement of Class Room and Office Furniture**.
2. The Bid Security for the Bid is **Rs. 300,000.00** in the form of Call Deposit/Bank Draft (refundable) drawn in favor of “COMSATS University Islamabad, Abbottabad Campus” (FTN/NTN: 9013701-9); scanned copy of which is required to be uploaded through EPADS and hard copy must be submitted physically along with hard-copy of sealed bidding document on the closing date of the tender to COMSATS University Islamabad, Abbottabad Campus on the address given below.
3. The complete Tendering process shall be carried out through EPADS.
4. Interested bidders are requested to register themselves on the EPADS <https://eprocure.gov.pk/#/supplier/registration> and submit their tender documents.
5. For registration and guidance/training on EPADS, you may contact EPADS UAN: 051-111-137-237.
6. Closing date of submission is **March 07, 2024, by 1100 hours**. The bids shall be opened **half hour after the closing time** in the presence of the bidders who wish to be present, in Purchase office Admin Block, COMSATS University Islamabad, Abbottabad Campus
7. As per PPRA Rule 33, CUI may reject all bids or proposals at any time prior to the acceptance of a bid or proposal.

Contact Person and Submission



Purchase Officer

COMSATS University Islamabad, Abbottabad Campus

University Road, Tobe Camp, Abbottabad

Tel: 0992-383591-6, 0992-383863

Email: nisarahmed@cuiatd.edu.pk

2. Key Points

Table # 1

S.N	Detail	Specification
1.	Validity of Bid	90 Days from the date of closing of Bids
2.	Award of Contract / W.O	Item-wise Basis
3.	Delivery Time	30 Days from the date of issuance of W.O
4.	Method	Single Stage Single Envelope
5.	Closing Date & Time	March 07, 2024 by 1100 HRS
6.	Opening Date & Time	Half Hour after the Closing Time on the same day
7.	Bid Security Amount (Under Rule 25 of PPRA Rules 2004)	300,000.00
8.	Performance Guarantee (Under Rule 39 of PPRA Rules 2004)	10% of total value of the order for period of six month from the date of invoice.

3. General Terms & Conditions of the Tender

- i. No tender/bid shall be considered if: -
 - a) Not uploaded through EPADS;
 - b) Received without required documentation or deficiency in required documentation;
 - c) Received without bid security;
 - d) In contradiction with the specification given by the CUI Atd Campus ;
 - e) Received with any condition;
 - f) The bidder is in litigation with CUI Atd or is blacklisted by any organization or is notified as blacklisted on PPRA website.

4. Contact person and Submission of Bids:

- i. Contact Person for all inquiries, clarifications and bid submission shall be:

Purchase Officer,
COMSATS University Islamabad, Abbottabad Campus
Admin Block Purchase Officer, University Road Tobe Camp Abbottabad,
Tel: 0992383863, 383591-5 FAX: 0992-3838441
Email: nisarahmed@cuiatd.edu.pk

5. Validity of Bids:

- i. The Bid shall remain valid as mentioned in **Table 1** of the tender document.
- ii. Any bidder/firm/ company which refuses to accept the Work Order based on market price escalation shall result in forfeiting the bid security. CUI Atd Campus may also impose a ban from business with it for a period of 6 months.

6. Price of the Bid:

- i. Prices quoted by the Bidder shall be fixed during the period of the contract and not subject to variation on any account.
- ii. Applicable Income tax and GST shall be deducted at source and as per rules. In case of exemption, please mention and attach proper documentation duly verified from the concerned tax authorities. However, CUI Atd Campus may accept the exemption certificate. In case of non-acceptance, CUI Atd Campus shall deduct all applicable taxes as per tax rate. CUI Atd Campus shall provide a certificate of tax deduction and the vendor may claim refunds from Tax Authorities/FBR.
- iii. In the case of tie in rates of the bidders, award of contract shall be decided through balloting in the presence of the of the bidders.
- iv. Unit price shall be taken up to 1 decimal point. The total cost shall be round-up to zero decimal.
- v. In case of any conflict in the price/cost quoted by the bidder, the unit cost (Exclusive of GST) quoted by the bidder shall be considered for calculation.
- vi. In case GST is not mentioned, the prices shall be considered as inclusive of GST.

7. Bid Currencies & Bid Security:

- i. Bid prices shall be quoted in Pak Rupees.
- ii. The currency of the bid security shall also be in Pak Rupees.
- iii. The Bidder shall furnish, as part of its bid, bid security as specified in **Table 1** of the tender document. The bid security is required to protect CUI Atd Campus against the risk of Bidder's default which would warrant the security's forfeiture.
- iv. The bid security shall be in favor of **COMSATS University Islamabad Abbottabad Campus (FTN/NTN: 9013701-9)**, in any of the following form:
 - a. Bank Draft
 - b. Pay Order
- v. A scanned copy of bid security is required to be uploaded through EPADS and hard copy must be submitted physically on the closing date of the tender to COMSATS University Islamabad Abbottabad Campus on the address given in the tender notice.
- vi. No personal cheques shall be acceptable at any cost. Also, any previous bid security shall not be considered or carried forward.
- vii. The bid security found deficient of the required amount shall not be considered.
- viii. Unsuccessful bidders' bid security shall be released and returned promptly as the successful bidder gives consent to the work order or signs the contract agreement, whichever is applicable.
- ix. The bid security of the bidder shall be forfeited if the bidder:
 - a. Requests for withdrawal of his bid during the evaluation process.

- b. Does not accept the correction of arithmetic errors in its bid.
- x. The bid security of the successful bidder shall be forfeited if the bidder:
 - a. Fails to accept the work order/sign the contract agreement after announced as successful Bidder.
 - b. Fails to comply with the requirement of the bid and contract.

8. Clarification of Bidding Document:

- i. During evaluation of the bid(s), CUI Atd Campus may, at its discretion, ask the Bidder for a clarification of its bid and such information imperative for evaluation. The request for clarification and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered, or permitted. In case the bidder fails to respond within given deadline, the bidder shall be considered as non-responsive and shall be disqualified from the bidding process.

9. Opening of Bids:

- i. CUI Atd Campus shall open all bids through EPADS at the time, date, and place specified in tender notice, in presence of bidders' representatives who wish to attend the meeting and shall sign an attendance sheet as evidence of their presence.

10. Influencing the evaluation process:

- i. No Bidder shall contact CUI Atd Campus on any matter relating to evaluation of its bid, from the time of bid opening to the time evaluation report is made public. If the Bidder wishes to bring additional information or has a grievance to submit, it should do so through EPADS.
- ii. Any effort by a Bidder to influence CUI Atd Campus during bid evaluation may result in disqualification of the bid.

11. Qualification & Evaluation of Bids:

- i. CUI Atd Campus shall determine whether the Bidder is qualified to perform the Contract satisfactorily, in accordance with the criteria & qualification specified in the tender document.
- ii. The qualification shall be based upon an examination of the documentary evidence submitted by the Bidder, as well as such other information as CUI Atd Campus deem necessary and appropriate.
- iii. CUI Atd Campus shall technically evaluate and compare the bids which have been determined to be substantially responsive, as per evaluation criteria given in the tender document.
- iv. The bidder's financial evaluation of a bid shall be based on the lowest evaluated bid inclusive of all prevailing taxes and duties.
- v. CUI Atd Campus shall examine the bids as whether:

- a. They are complete in all respect;
 - b. Any computational errors have been made;
 - c. Required financial sureties have been furnished;
 - d. The documents have been properly signed.
- vi. Arithmetical errors shall be rectified on the following basis:
- a. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price (exclusive of tax) shall prevail, and the total price shall be corrected. If the Contractor does not accept the correction of the errors, the bid shall be rejected, and the bid security shall be forfeited.
 - b. If there is a discrepancy between words and figures, the amount in words shall prevail.
- vii. CUI Atd Camus may waive any minor non-conformity, in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.
- a. *Explanation: A minor non-conformity is one that is merely a matter of form and not of substance. It also pertains to some immaterial deficiency in a Bid or variation of a bid from the exact requirements of the tender document that can be corrected or waived without being prejudicial to other bidders. The deficiency is immaterial when the affect on quantity, quality, or delivery is negligible when contrasted with the total cost or scope of the supplies or services being acquired. CUI Atd Campus shall either give the bidder an opportunity to correct any deficiency in a bid or waive the deficiency, whichever is advantageous to CUI Atd Campus.*
- viii. Prior to the detailed evaluation, CUI Atd Camus shall determine the substantial responsiveness of each bid to the bidding documents. For the purposes of these clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations.
- ix. Deficiency in bid security, Applicable Law and Taxes and Duties shall be deemed to be a material deviation. The CUI 's Atd Campus determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- x. If a bid is not substantially responsive, it shall be rejected and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

12. Notification of Evaluation Reports:

- i. The evaluation report shall be notified through EPADS.

13. Corrupt or Fraudulent Practices & Blacklisting:

- i. The bidders shall be required to observe the highest standard of ethics during the procurement and execution of contracts. For the purpose of this provision, the terms set forth below are defined as under:
 - a. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution;
 - b. "Fraudulent practice" means a misrepresentation of facts to influence a procurement process or the execution of a contract to the detriment of CUI Atd Campus;
 - c. "Collusive practice" is an arrangement among bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels for any wrongful gains, and to deprive CUI Atd Campus of the benefits of free and open competition.
- ii. CUI Atd Campus shall have the right to reject a proposal for award if it determines that the bidder had been engaged in corrupt or fraudulent practices in the past with any organization.
- iii. Any bidder/firm/company which is blacklisted by any organization and/or notified as blacklisted by PPRA shall be considered disqualified from the bidding process unless and until it is de-notified on PPRA website.
- iv. If it at any time, CUI Atd Campus determines that the firm has engaged in corrupt, fraudulent, or collusive practices in competing for, or in executing the contract, it shall sanction/ban a bidder/firm/company, in accordance with prevailing Blacklisting procedures under Federal Public Procurement Rules.

14. Right to Accept or Reject Bids:

- i. Under PPRA Rule 33(1), CUI Atd Campus may reject bids or proposals at any time prior to the acceptance of a bid or proposal, without incurring any liability to the bidder(s).

15. Award of Contract:

- iii. After scrutiny of all bidding documents, the final evaluation report shall be uploaded to EPADS, and the work order/purchase order shall be issued on the basis of most advantageous bid as mentioned in **Table 1** of the tender document.
- ii. The successful bidder shall immediately sign a contract agreement / give consent to the Work Order/Purchase Order. The bidder shall bear all the stamp duties and expenses for the purpose of contract agreement/Work Order/Purchase Order, if any.

16. Notification of Award:

- i. The notification of award shall constitute the formation of the Agreement/Work Order/Purchase Order.

- ii. Upon the successful bidder's signing the contract agreement/acceptance/consent to the Work Order/Purchase Order, CUI Atd Campus will promptly notify the unsuccessful bidder(s) and will release its bids security.

17. Delivery Information:

- i. The supply shall be made to CUI Atd Campus as mentioned in **Table 1** of the tender document.
- ii. In case of delay in delivery, the vendor may submit a written request for extension in delivery time, giving valid justification with proof.
- iii. CUI Atd Campus may extend the delivery time according to the reason of delay with the condition of deductions in percentage (0% to 10%) from the total bill as penalty. The decision shall be communicated to the vendor for extension along with [percentage of deduction, if any]. In case of non-responsiveness/non-acceptance by the vendor, the work order shall automatically be cancelled, the bid security shall be forfeited. CUI may also impose a ban from business with it for a period of six months.
- iv. CUI Atd Campus may reject the request for extension, in which case, the work order shall be cancelled, the bid security shall be forfeited. CUI Atd Campus may also impose a ban from business with CUI for a period of six months.
- v. It shall be the responsibility of vendor to make delivery as per Work Order directly to the **Store Section** and may be informed one day prior to delivery for proper arrangements and entry. The supplier shall insure the duly signed delivery challan from store officials.
- vi. The bills along with delivery challan (duly signed by authorized official of CUI Atd Campus) shall be submitted to the Procurement Office for further necessary payment process. Any deficiency in bill/supporting documentation shall be removed by the vendor.
- vii. Any defective item(s) shall be replaced by the vendor during the warranty period, free of cost, within Fifteen days is time. In case of failure to supply the specific item, CUI Atd Campus shall purchase the item on risk and cost of the supplier, to be deducted from the bidder's bid security or performance guarantee.
- viii. Payment shall be made as per actual quantity delivered & accepted to CUI Atd Campus.
- ix. Samples are mandatory where specifically demanded and bid without samples shall be considered non-responsive. No sample(s) shall be accepted after the closing date of the tender. Sample(s) other than the demanded item(s) shall not be considered.
- x. After technical evaluation of bids, sample(s) provided by bidders may be picked up from the procurement section within 30 days from the date of technical bid evaluation announcement. Failure on the part of the bidder(s) to collect his samples within the stipulated time shall allow CUI Atd Campus to dispose-off the samples.

18. Legal Document

- i. The Tender document and Contract agreement/Work Order/Purchase Order altogether shall have legal binding on all bidders.

19. Declaration Form

(THIS FORM IS TO BE PROVIDED WITH THE BID)

All the terms & conditions have been carefully read and understood and are hereby unconditionally accepted and it is declared that:

- a) I understand that by inserting any condition in my bid consciously or unconsciously shall automatically disqualify me from the bidding process.
- b) By altering/adding/deleting any point, clause, condition in the documents provided shall automatically disqualify me from the bidding process.
- c) All the information furnished by me here-in is correct.
- d) I have no objection if enquiries are made about the work listed by me/us in the accompanying sheets /annexure.
- e) I agree that the decision of CUI Atd Campus in selection shall be final and binding to me.
- f) I have read the instructions appended to the proforma and I understand that if any false information in the document is noticed at a later stage, CUI Atd Campus is at liberty to act in a manner in accordance with the applicable rules and terms & conditions of the tender, which may include Penalty AND/OR forfeiting of bid security AND/OR blacklisting for future tendering with CUI Atd Campus AND/OR bar from business with CUI Atd Campus for a period of six months.

Tender Title	
Name of Firm/ Company	
Year of Establishment in this business	
Name of Authorized agent	
Office Address	
GST No.	
NTN.	
Valid Cell No.	
Valid E-mail (For all official correspondence)	
Signature & Stamp (Authorized Representative)	

20. Evaluation Criteria:

Table # 2: Mandatory Requirements:

Detail	Criteria
1. Draft of Bid Security <i>(To be Physically Submitted to Purchase Section on the Closing Date)</i>	Mandatory
2. Financial Bid / Quotation (Strictly as per CUI Atd Campus pattern) <i>Any alteration/addition/deletion shall dis-qualify the bidder from the bidding process</i>	Mandatory
3. Declaration Form	Mandatory
4. Active Taxpayer List (ATL) of FBR Status as "Active" in I.T and Compliance Level is 100% in GST	Mandatory
5. Proof of Non-Blacklisting: Affidavit on legal paper of appropriate value (duly attested from notary public) OR letterhead that the firm/company is neither blacklisted nor in litigation with any public sector client	Mandatory
6. Compliance with CUI Atd requirement/Specification Mentioning of Brand Name (if any) is mandatory. Blank technical sheet shall be treated as non-compliance and may result rejection of tender / bid	Mandatory
7. Professional Experience List of 3 executed/ similar contracts for Different Clients in the last 3 Year (will be given preference).	

- Failing in any of the mandatory requirement shall disqualify the bidder from the bidding process.
- Technically most advantageous/responsive bidder offering the lowest price will be awarded contract/supply order on the items basis.
- **DO NOT attach any information or portfolio which is not requested. Only provide the demanded information**

21. FINANCIAL PROPOSAL

(On Company's Letterhead)

Ref No: _____

NTN: _____

Date: _____

GST: _____

Procurement of Office Furniture against Development project

SN	Specification	Qty	Unit Price (GST Excl)	GST Amount (If any)	Unit Price (GST Incl)	Total Cost (GST Incl)
1						
Total Cost (Inclusive of GST)						

- The bid is submitted without any conditions.
- All the terms and conditions set forth by COMSATS University Islamabad, Abbottabad Campus in this tender are acceptable unconditionally, including **bid validity and delivery time**.

Name of Authorized Person: _____

Date: _____

Signature _____

Official Company Seal: _____

22. Tender Reference # EPC IT Equipment/02 (20232-2024)

Items Detailed Specifications

S#	ITEM	DESCRIPTION	A/u	Qty
1	Switch Cabinet	9U switch box / Rack Imported, fixed & sliding trays, 2 x fans, Front tinted glass door with lock, Black color, wall mount	10	No
2	Switch Box	6U switch box / Rack Imported, Front tinted glass door with lock, Black color, wall mount	5	No
3	Switch Box	4 U switch box, wall mount lock & key	6	No
4	Fiber Optic	Fiber Optic Cable, 24 core Single mode double coated (in meters)	2,000	Meter
5	Fiber Optic	Fiber Optic Cable, 12 core Single mode double coated (in meters)	2,000	Meter
6	OFDF	OFDF, Single mode fiber 24 core, rack mount	2	No
7	OFDF	OFDF, Single mode fiber 12 core, rack mount	8	No
8	Fiber Patch Cord	Patch cords, SC to LC pair (5m) Single Mode	20	Pieces
9	Fiber Patch Cord	Patch cords, SC to LC pair (3m) Single Mode	20	Pieces
10	Fiber Patch Cord	Patch cords, SC to SC pair (5m) Single Mode	10	Pieces
11	Fiber Patch Cord	Patch cords, SC to SC pair (3m) Single Mode	10	Pieces
12	Fiber Pigtailed	Fiber pigtail, Single mode fiber (1 meter)	170	Pieces
13	UTP Cable	UTP Cable CAT6 305m box 100 Ω, 24AWG, 4-Pair UTP Cable, 350 MHz UTP Category 6 cable, Conductor resistance at 20° C (max.) 98,6 Ω/km, Dielectric strength at 50 Hz 1 kV/1min, Insulation resistance (min.) 5000 MΩ/km, Velocity (nom.) 66%, Characteristic impedance 100 +/-15 Ω (1 to 100 MHz), Mutual capacitance (nom) <55 pF/m. Propagation delay skew <20 ns/100m, Fire	30	Roll

		retardant IEC 60332-1, Halogen free (LSOH version) IEC 60754-1.		
14	STP Cable	STP Cable CAT6 305m box 100 Ω , 24AWG, 4-Pair UTP Cable, 350 MHz UTP Category 6 cable, Conductor resistance at 20° C (max.) 98,6 Ω /km, Dielectric strength at 50 Hz 1 kV/1min, Insulation resistance (min.) 5000 M Ω /km, Velocity (nom.) 66%, Characteristic impedance 100 +/-15 Ω (1 to 100 MHz), Mutual capacitance (nom) <55 pF/m. Propagation delay skew <20 ns/100m, Fire retardant IEC 60332-1, Halogen free (LSOH versions) IEC60754-1	15	Roll
15	Face Plates	Network face plates, PVC standard single channel, white color, color icons, shutter for dust protection, depth 27 mm	300	No
16	Back Box	Standard size network face plate back box soft plastic, single	300	No
17	Information Outlet	I/O inserts, Imported, high density copper connectors, back push shutter	300	No
18	RJ 45 connectors	RJ-45 Cat 6 Connector, Full copper conductor, High quality 50-micron gold contacts, Meets or exceeds Category 6 EIA/TIA 568 a-B, RoHS compliant, For 23AWG - 24AWG Wires.	5,00 0	No
19	Cable ties	Cable ties small (in packets)	25	Packet
20	Cable ties	Cable ties medium (in packets)	40	Packet
21	Cable ties	Cable ties large (in packets)	20	Packet
22	Cable beads/clips	Cable clips of single cable (in packets)	50	Packet
23	Cable beads/clips	Cable clips of double cable (in packets)	25	Packet

24	Cable beads / clips	Cable clips of 4 cables (in packets)	20	Packet
25	Ethernet SFPs	Ethernet SFP modules 1 Gigabit,	10	No
26	Fiber SFPs	Fiber SFP Modules 1 Gigabit, single mode,	22	No
27	Router	Router, 1U rackmount, 8x Gigabit Ethernet, 2xSFP+ cages, LCD, 36 cores x 1.2GHz CPU or higher, 8GB RAM, 41.5mpps fastpath, Up to 28Gbit/s throughput, RouterOS L6, Dual PSU if available.	1	No
28	Distribution Switches	Layer 3 Managed Gigabit Distribution Switch, Ports: 12x 10/100/1000 SFP Ports, Total number of MAC addresses: 32,000, DRAM: 8 GB or more, Flash: 16 GB, IPv4 routing entries: 32,000, IPv6 routing entries: 16,000.	2	No
29	Distribution Switches	Layer 3 Managed Gigabit Distribution Switch, Ports: 24x 10/100/1000 Ethernet Ports, 4 x 1G SFP uplinks, Switching capacity: 208 Gbps on 24-port Gigabit Ethernet model or higher, Total number of MAC addresses: 32,000, DRAM: 8 GB or more, Flash: 16 GB, IPv4 routing entries: 32,000, IPv6 routing entries: 16,000.	2	No
30	Access Switches	Layer 2 Managed Gigabit Access Switch, Ports: 24 x 10/100/1000 Ethernet Ports, 4 x 1G SFP uplinks, CPU: ARM v7 800 MHz or higher, DRAM: 512 MB or more, Flash memory: 256 MB or more, Forwarding bandwidth: 28 Gbps or higher, Switching bandwidth: 56 Gbps or higher.	18	No
31	Access Switches	24x10/100/1000 Gigabit ports, Switching Capacity: 48 Gbps or more, Forwarding Rate: 35.71 mpps or more, Packet buffer: 512KB, Filtering Address Table: 8K MAC addresses per device, Packet Filtering/ Forwarding Rate, Gigabit Ethernet: 1,488,000 pps per port, MAC Address Learning, Self-learning, auto-aging, Standards: IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab, 1000 BASE-T Gigabit	8	No

		Ethernet, ANSI/IEEE 802.3 NWay auto-negotiation, IEEE 802.3x Flow Control, QoS (Quality of Service), 802.1p priority, 8 queues, Energy-Efficient Ethernet (EEE), Flow Control, Port Isolation, Storm Control, Iron body rack mountable, Warranty 1 Year.		
32	Access Switches	16 x 10/100/1000 Gigabit ports, Switching Capacity: 32 Gbps or more, Forwarding Rate: 23 mpps or more, Packet buffer: 512KB, Filtering Address Table, 8K MAC addresses per device, Packet Filtering/Forwarding Rate, Gigabit Ethernet: 1,488,000 pps per port, MAC Address Learning, Self-learning, auto-aging, IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab 1000BASE-T Gigabit Ethernet, ANSI/IEEE 802.3 NWay auto-negotiation, IEEE 802.3x Flow Control, QoS (Quality of Service), 802.1p priority, 8 queues, Energy-Efficient Ethernet (EEE), Flow Control, Port Isolation and Storm Control, Iron body Rack mountable, Warranty 1 Year	10	No
33	Access Switches	8 Port Gigabit Unmanaged Switch, 8 x 10/100/1000 Gigabit ports, 1.6 Gbps Switching capacity, Forwarding Rate: 1.19 mpps or more, Fan-less design for silent operation, IEEE 802.3x Flow Control, Auto MDI/MDI-X crossover for all ports, Support up to 10,000 bytes jumbo frames, 802.3az Energy-Efficient Ethernet (EEE), RoHS-compliant, Energy-Efficient Ethernet (EEE), Flow Control, Port Isolation, Storm Control, Warranty 1 Year	10	No
34	Wireless Access Points	WiFi Access Point (indoor), Wi-Fi 6 Ready, Dual-Band Device Interfaces: 1 x 10/100/1000 Mbps (PoE) Ethernet or above LAN, Antennas: 2 x dual-band internal antennas or above Data Signal Rate: 2.4 GHz - Up to 575 Mbps, 5 GHz	30	No

		- Up to 1200 Mbps, Antenna Gain: 3.2 dBi (2.4 GHz), 4.3 dBi (5 GHz, User 200+ connections, Standards: IEEE 802.11a/b/g/n/ac/ax, IEEE 802.3u/ab, IEEE 802.3az, Energy-Efficient Ethernet (EEE), IEEE 802.3at PoE, Security Protocol: WPA/WPA2/WPA3™ Personal/Enterprise, WEP, 64/128-bit, SSID broadcast disable, MAC, address access control, internal RADIUS server, Network Management: Web (HTTP), Secure Socket Layer (SSL), Traffic control, Power Supply: Connect 12 V / 2.5 A with power adapter , IEEE 802.3at PoE, with PoE and power adaptor.		
35	Wireless Access Points	WiFi Outdoor Access Point, IEEE 802.11ac Wave 2 wireless, Device Interfaces: 1 x IEEE 802.11a/b/g/n/ac Wave 2 wireless2, 2 x Gigabit LAN, Standards: IEEE 802.11a/b/g/n/ac, IEEE 802.3i/u/ab, IEEE 802.3az Energy-Efficient Ethernet (EEE), IEEE 802.3af Power over Ethernet Antennas: 4 x internal dual-band, 6 dBi at 2.4 GHz, 7 dBi at 5 GHz, Data Signal Rate: 2.4 GHz band: Up to 300 Mbps, 5 GHz band: Up to 866 Mbps, Security Features: 128-bit personal wireless encryption, 128-bit enterprise wireless encryption, WEP 64/128-bit encryption, SSID broadcast disable, MAC address access control, Network Access Protection (NAP), Internal RADIUS server, Other Features: Fast Roaming Support with 802.11k, 802.11v, and 802.11r, Passpoint Hotspot 2.0 Support, Network Management: Telnet, Secure Telnet (SSH), Web (HTTP), Secure Socket Layer (SSL), Traffic control, Certifications: FCC, IC, CE, C-Tick, UL, IP68, Mounting Options: Pole mounting kit	3	No
36	RFID Biometric Attendance	Biometric & RFID Attendance with access control Machine: Biometric, Fingerprint, Palm, FRID, 2.8	4	No

	with Access Control	inch TFT color screen, Palm capacity 300 or more, Fingerprint capacity 3000 or more, RFID 125kHz EM / 13.56MHz IC or more, Card Capacity 10000 or more, Log capacity 100000 or more, Interfaces TCP/IP, USB-Host, Wi-Fi, Automatic Status Switch, Self-Service Query, Work Code, T9 Input, 9 Digit User ID, DST, Scheduled-bell, SMS, RS232 Printer AC module ID Card, IC Card POE, 3G / 4G, Battery Module, ADMS AC module 2: Exit Button, Door Lock, Alarm,12V OUT, AUX IN, Door Sensor, RS485, Wiegand IN / OUT, Power 12V / 1.5 A, Verification Speed <equal to 1 sec, Dimension 179.95x134.94x38.5 mm etc.		
37	LED TV 65"	Smart / Android TV with 2 HDMI or more, 1 VGA, Network / WiFi connectivity / interfaces, with wall mount, remote control. Warranty Card and Panel 1 year.	5	No
38	Network Video Recorder (NVR)	Network Video Recorder: HD, Cloud storage support, Up to 16-ch IP camera inputs, .265+/H.265/H.264+/H.264 video format, Up to 8 MP support decoding capacity, 1 HDMI and 1 VGA interfaces, both interfaces support independent video output 2 SATA interfaces for HDD connection (up to 16 TB per HDD) Up to 160 Mbps incoming bandwidth, resolution support for recording. Warranty 1 Year	6	No
39	Network Video Recorder (NVR)	Network Video Recorder: HD, Cloud storage support, Up to 8-ch IP camera inputs, .265+/H.265/H.264+/H.264 video format, Up to 8 MP support decoding capacity, 1 HDMI and 1 VGA interfaces, both interfaces support independent video output 2 SATA interfaces for HDD connection (up to 16 TB per HDD) Up to 160 Mbps incoming bandwidth, resolution support for recording. Warranty 1 Year	3	No

40	CCTV IP CAM	CCTV IP Camera, 4 MP Outdoor, WDR Fixed Bullet, high quality imaging with 4 MP resolution, Efficient H.265+ compression technology, Clear imaging against strong back light due to 120 dB true WDR technology, Water and dust resistant (IP67), Robust structure design with full metal materials. Image Sensor 1/3" Progressive Scan CMOS, Min. Illumination Color: 0.01 Lux @ (F1.2, AGC ON), 0.018 Lux @ (F1.6, AGC ON), 0 Lux with IR, Shutter Speed 1/3 s to 1/100,000 s, Slow Shutter, Wide Dynamic Range 120dB, Day & Night IR Cut Filter upto 60meter, Angle Adjustment Pan: 0° to 360°, tilt: 0° to 90°, rotate: 0° to 360°. Warranty 1 Year	80	No
41	PTZ CCTV IP CAM	CCTV IP CAM PTZ, 4MP, 30X zoom, IP Network IR PTZ CAM, Dark fighter, with PTZ software and other accessories. Warranty 1 Year	3	No
42	PoE Network Switch	Gigabit PoE Non-managed Network Switch, 8 + 2Port Gigabit, 1.6 Gbps Switching capacity, Forwarding Rate: 1.19 mpps or more, Fan-less design for silent operation, Warranty 1 Year	10	No
43	PoE Network Switch	Gigabit PoE Non-Managed Network Switch 5 port, Harsh environment, Warranty 1 Year.	8	No
44	Power Adaptor	Power Adaptor, 12 Volt (5 AMP) with power cable	30	No
45	Hard Disk	Internal Hard Drive for Surveillance, 8TB, SATA 6.0Gb/s, Cache: 256MB, Form Factor: 3.5", Warranty 2 Year	8	No
46	Hard Disk	Internal Hard Drive for Surveillance, 4TB, SATA 6.0Gb/s, Cache: 256MB, Form Factor: 3.5", Warranty 2 Year	4	No
47	CCTV PVC Box	PVC Plastic CCTV Box for CCTV 4*4	80	No
48	CCTV PVC Box	PVC Plastic CCTV Box CCTV 150*110*70	10	No
49	CCTV PVC Box	PVC Plastic CCTV Box CCTV 380*300*120	10	No
50	Cable Duct	PVC high quality industrial grade Cable Duct 4x4 inches (in feet)	220	Feet

51	Cable Duct	PVC high quality industrial grade Cable Duct 40x40 inches (in feets)	700	Feet
52	Cable Duct	PVC high quality industrial grade Cable Duct 25x38 inches (in feets)	500	Feet
53	Cable Duct	PVC high quality industrial grade Cable Duct 25x25 inches (in feets)	500	Feet
54	Cable Duct	PVC high quality industrial grade Cable Duct 16x16 inches (in feets)	500	Feet
55	PVC Flexible pipe	PVC Flexible pipe 3 inch (in feet)	350	Feet
56	PVC Flexible pipe	PVC Flexible Pipe 1 inch (in feet)	600	Feet
57	Rawal Bolts 2.5"	Rawal Bolts 2.5"	59	No
58	Black Screw	Black Screws 1 inch(in packet)	25	Packet
59	Black Screw	Black Screws 1.5 inch(in packet)	20	Packet
60	Black Screw	Black Screws 2 inch(in packet)	15	Packet
61	Black Screw	Black Screws 3 inch(in packet)	10	Packet
62	Steel nails	Steel nails 1 inch (in packet)	25	Packet
63	Steel nails	Steel nails 1.5 inch (in packet)	20	Packet
64	Steel nails	Steel nails 2 inch (in packet)	20	Packet
65	Steel nails	Steel nails 3 inch (in packet)	10	Packet
66	Tapes	Double tape industrial quality	6	No
67	Tapes	PVC tape electric	150	No
68	Electric Cable	2 Core Electric cable, 3/29 copper (70 meter)	20	Roll

69	Electric Cable	2 Core Electric cable, 7/29 copper (70 meter)	11	Roll
70	Electrification	Electrification labor Charges: Installation of extra power sockets, UPS cabling	1	Job
71	UPS (6KVA) with Dry Battery	UPS 6KVA With (External Battery Bank 3 Hours Backup), real sinewave, LCD Tower, True on-line double-conversion technology, DSP technology guarantees high performance, 0.8 Output Power Factor, Wide input voltage range (110-300 VAC), 0.99 input power factor correction, 50Hz/60Hz frequency converter mode, Warranty 1 Year	2	No
72	UPS (3KVA) with Dry Battery	UPS 3KVA With (External Battery Bank. 3 Hours Backup), real sinewave, LCD Tower, True on-line double-conversion technology, DSP technology guarantees high performance, 0.8 Output Power Factor, Wide input voltage range (110-300 VAC), 0.99 input power factor correction, 50Hz/60Hz frequency converter mode, Warranty 1 Year	4	No
73	Networking / Connectivity Charges	Networking (Full task): Fiber optic laying and splicing. Ethernet Cabling, Ducting, faceplates installation, connectivity all included	1	No
74	Multimedia Projectors	Multimedia Projector, 3,600 ANSI Lumen, SmartEco Energy Conservation, 20,000:1 High contrast, Native Resolution 1024 x 768 pixels, Light Source: Lamp Built-in Speaker 2W, with projector enclosure, and 15m 4K HDMI cable, 15m power cable, Projector Security Cage (top quality cold rolled steel material, 55~100cm ceiling drop adjustment with extension ceiling arm, 25kg max loading support, Universal ceiling mount bracket kit with square case, Lockable key for safe), Installation included	5	No