

Shaheed Benazir Bhutto University



TENDER DOCUMENTS

For

The Supply/Purchase of Generator 50 KVA for Main Project Sheringal, Chemicals etc for Wari Campus, Prospectus, Calendars & Server Rack for Main Campus SBBU Sheringal

**SHAHEED BENAZIR BHUTTO UNIVERSITY,
MAIN CAMPUS SHERINGAL, DIR UPPER**



SHAHEED BENAZIR BHUTTO UNIVERSITY

Sheringal, Dir Upper, Khyber Pakhtunkhawa

Advertisement No. SBBU/Adv./Td/120/2019

TENDER NOTICE

Sealed Tenders are invited from the well established/reputed Firms/Companies/Suppliers, registered with Income tax/Sales tax Departments for the supply of the Lab Equipments, Chemicals & Furniture/Office Equipments etc.

TERMS & CONDITIONS: (Please read tender detail before apply)

1. The detailed BOQ/Specifications along with the terms and conditions have been set forth in the tender documents.
2. Tender documents can be downloaded from the web site of the University www.sbbu.edu.pk OR **PPRA** Web Site info@ppra.org.pk w.e.f. 14/06/2019 till 02/07/2019 (11.30AM) with payment of non-refundable fee of **Rs.1,000/-** per tender. The fee can be deposited in HBL Sheringal Branch or can be sent through bank draft from any HBL branch (ONLY), in favor of the Treasurer, Shaheed BB University, Sheringal or online deposit in A/c # 18787100000103 titles **Receipt Account** HBL Sheringal Branch, Dir Upper, KP.
3. Tenders shall be opened on **02/07/2019 at 12.00 Noon**, in the presence (not obligatory) of the contractors or their authorized agents in the office of the Convener, Purchase Committee of the University.
4. Only the manufacturers/firms/companies or its authorized distributors will be eligible to apply.
5. The single-stage –Single envelope procedure as per PPRA Rules, Govt. of Pakistan will be adopted. The interested parties should submit the bid(s) in a single package containing single envelope marked as Financial Proposal along with Technical specifications (if any), Financial Position, manpower list, plant & machinery list, past performance etc).
6. The quotations must be accompanied with a call deposit of 2% of the quoted amount.
7. The suppliers/firms/manufacturers will not be allowed to sublet the work/contract/supply to another supplier/firm/manufacturer.
8. The interested parties who want to supply the Calendars and Prospectus will provide samples on demand whenever required.
9. The University shall upon request, communicate the bidder the grounds of rejection, but it is not required to Justify those grounds.
10. Errors and omissions, if any, shall subject to rectification by the University.

Convener Purchase Committee

Shaheed Benazir Bhutto University, Sheringal, Dir Upper

Ph. No. 0944-885405/0332-9157609, Fax. 0944-885805, Email- sherali@sbbu.edu.pk

TENDER DOCUMENT

The Supply/Purchase of Generator 50 KVA for Main Project Sheringal, Chemicals etc for Wari Campus, Prospectus, Calendars & Server Rack for Main Campus SBBU Sheringal

The proposals will be opened on 02/07/2019 at 12:00 Noon sharp in the Office of Convener Purchase Committee in the presence of the Purchase Committee under the chairmanship of the Convener Purchase Committee, Shaheed Benazir Bhutto University, Sheringal, Dir Upper.

Name of the Company / Dealer:

Address of the Correspondent:

Date: _____

Signature and Seal

Telephone No: _____

Fax No: _____

E mail: _____

Tender Fee Rs. 1,000/- only

Note:

- a. **Tenderer should read these conditions carefully and comply strictly while sending their tenders.**
- b. **If any discrepancy, error, or omission found in the tender documents; please contact Deputy Director Procurement on or before the closing date for Tender (0944-885405 or 0332-9157609).**
- c. **Purchase Committee shall upon request, communicate the bidder the grounds of rejection, but it is not required to justify those grounds. The decision of the Purchase Committee shall be final.**

1. General

- All Quotations should reach the undersigned within due date as specified in the advertisement only through registered post/Courier. By hand delivery will not be accepted.
- **The soft copy of quotations on a CD shall be provided along with hard copy or through email after financial bid opening.**
- Any cutting/ correction in bid will make quotation invalid.
- In case of quoting alternate prices, separate tender shall be purchased.
- Tenders forms shall be filled in ink or typed. No tender filled in pencil shall be considered.
- The bidder shall sign and stamp each page of the Technical and Financial Proposal.
- Rates shall be written both in words and figures. There should not be errors and / or over-writings. Corrections if any should be made clearly and initiated with dates.
- Quotations must be valid for **90 days** from the date of opening of tender.
- Only Manufacturers / Distributors / bona fide dealers of the goods shall give tenders. They shall, therefore, furnish necessary declaration along with documentary proofs for the same.
- Any bidder, interested in bidding for one or more items separately, is allowed to do so. However, preference will be given to bidder offering several items together.
- **The single-stage –single envelope procedure as per PPRA Rules, Govt. of Pakistan will be adopted. The interested parties should submit the bid(s) in a single package containing single envelope marked as Financial Proposal (may also include company profile, financial position, list of employees. Registration documents & past experience).**
- Supply order/ contract award will be issued to the successful bidders.
- The contractor shall notify forth in written form to the purchase committee with any change in the constitution of the firm, etc. and such change shall not relieve any former member of the firm, etc., from any liability under the contract.
- The contractor, in respect of the contract, shall accept no new partner/ partners in the firm unless he / they agree to abide by all its terms, conditions and deposits with the purchase committee a written agreement to this affect. The contractor's receipt for acknowledgement or that of any partners subsequently accepted as above shall bind all of them.
- The contractor shall not assign or sub-let his contract or any substantial part thereof to any other agency.
- The purchase committee reserves the right to accept any tender not necessarily the lowest, reject any tender without assigning any reasons and accept tender for all or anyone or more of the articles for which tender has been given or distribute items of stores to more than one firm/ supplier.

- The tender shall remove the rejected articles within 15 days of intimation of rejection, after which purchase committee shall not be responsible for any loss, shortage or damage and shall have the right to dispose of such articles as it thinks fit, at the tenderer risk and on his account.

2 **Scope of supply**

- The firm will enter into a contract with Shaheed Benazir Bhutto University, regarding the repairs and maintenance of the Item / equipment(s) supplied and will be responsible for the arrangements of spare parts whenever needed.
- Although, specifications and accessories have been provided, yet the University will not accept any excuse for any missing part / item needed for its full working condition.
- The tenderer, whose tender is accepted, shall arrange to supply as per schedule to be provided by the University in supply order.

3. **BID price**

- The Bidder shall indicate in his offer, list of items with specifications, standard accessories, make and origin, the unit price and total Bid prices of the goods.
- Prices of the optional accessories should be quoted separately. Rates quoted should be on the basis of F.O.R, Shaheed Benazir Bhutto University Sheringal, Sub Campus Wari, respectively as mentioned in the B.O.Q.
- Taxes levied by the government, if any, shall be paid by the bidder and must be included in the quoted prices.
- In case of supply from local market or from ready stock, security @ 10% of the total bill will be deducted for a period of One Year and will be released subject to receiving satisfactory report from the concerned office.
- In case of items supplied from local stock, sales Tax and Income Tax will be deducted from the supplier's bill as per government rules.

4. **Currencies of BID**

- The prices shall be quoted in Pakistani rupees on F.O.R SBBU Sheringal/Wari basis,

5, **BID validity**

- The Bid remain valid and open for acceptance of the purchaser for **90 days** from the specified date of opening.

6. **Earnest Money/Call Deposit**

- The Quotation must be accompanied with a call deposit of 2% of the local quoted prices with their offer in the form of Bank CDR/demand draft/pay order in favor, of the Shaheed Benazir Bhutto University, Sheringal (refundable).
- The earnest money shall be denominated in Pakistani rupees and shall be in the form of demand draft, pay order or call deposit, issued by Pakistani bank or branch of a foreign bank, operating in Pakistan.
- In case of alternate prices, earnest money will be based on the maximum quoted price of the same items. The demand draft/CDR shall be returned to unsuccessful bidders on written request. Further 2% CDR will be returned upon request to successful Bidders after signing Contract Agreement on stamp paper & furnishing 10% performance bond through DD/PO/CDR/BANK/INSURANCE Guarantee of the total supply order value.
- The earnest money may be forfeited in the following cases:
 - i. When Tenderer withdraws or modifies the offer, after opening of tender but before acceptance of tender,
 - ii. When Tenderer does not execute the agreement if any, prescribed within the specified time.
 - iii. When the Tenderer does not deposit the security money after supply order is given & accepted.
 - iv. When he fails to commence the supply of the items as per supply order within the time prescribed.

7. **Signing of BIDS**

- The person signing the Bids shall initial all the pages of the bid along with official seal/stamp where entries are made.

8. Dead Line for submission of Bids

- All Bids must reach and be received by the purchaser on or before the prescribed date & time during the office hours.

9. Late BIDS

- Late bids will not be entertained and returned unopened to the Bidders.

10. Canvassing

- Counseling or canvassing staff or elected representatives by any Tenderer will become liable to disqualification.

11. Delivery of Equipment / Items

The tenderer, whose tender is accepted, shall arrange to supply as per schedule to be provided by the University in supply order.

- The items/ equipment (s) will be supplied in packed form and opened in front of the Purchase Committee. The working manuals, circuit diagrams, related literature and computer programs, if any, must accompany the items/ equipment(s) in original.
- The tenderer shall be responsible for the proper packing, so as to avoid damage under normal conditions of transport by sea, rail and road or air and delivery of the material in the good condition to the consignee at destination.
- In the event of any loss, damage, breakage or leakage or any shortage the tenderer shall be liable to make good such loss and shortage found at the checking / inspection of the material by the consignee. No extra cost on such account shall be admissible.
- The goods will be delivered at the destination godown in perfect condition.
- The supplier, if he so desires may insure the valuable goods against lost by theft, destruction or damage, by fire, flood under exposure to whether or otherwise viz., (war, rebellion, riot, etc.,).
- The insurance charges will be borne by the supplier and tendering committee will not be required to pay such charges if incurred.

12. Performance Security

- Within 15 days of issuance of the purchase/supply order successful bidders shall furnish to Shaheed Benazir Bhutto University, Sheringal Dir Upper the performance security bond as per **Annexure A** equivalent to 10% of the bid price in the form of DD/PO/CDR or Bank Guarantee/Insurance Guarantee from a company having AA ranking. The performance security shall be payable to Shaheed Benazir Bhutto University as compensation for any loss resulting from the suppliers failure to complete its obligations.
- The performance security will be discharged by the University and returned to the supplier after completion of the supplier's performance obligations under the contract.

13. Forfeiture of Security Deposit

- Security amount in full or part may be forfeited in the following cases:
 - i. When the terms and conditions of contract is breached.
 - ii. When the Tenderer fails to make complete supply satisfactorily.
 - iii. Notice of reasonable time will be given in case of forfeiture of security deposit. The decision of the Purchase Committee in this regard shall be final.

14. Mode of Payment

- Payment shall be made in the form of cheque which shall be issued after receipt of equipment / items, installation and inspection, according to the following schedule.
 - i. 90% payment will be made only after the equipment(s) is fully installed and comes in working condition upon provision of end user report.
 - ii. 10% after the security period is expired from the date of supply.
- No advance payment will be made. Payments will be made subject to the clearance of account and audit cells.
- The time specified for delivery in the tender form shall be deemed to be the essence of the contract and the successful tenderer shall arrange supplies within the specified period.
- If the supplier requires an extension of time in completion of contractual supply on account of occurrence of any hindrance, he shall apply in writing to the committee with solid proof, which has placed the supply order, for the same immediately on occurrence of the hindrance but not after the stipulated date of completion of supply.

15. Prices

- Prices charged by the supplier for goods delivered in services performed under the contract shall not exceed the prices quoted the supplier in its bids. The quantity of items to be purchased can be increased / decreased at the quoted/approved rates.
- The Purchase Committee reserves the right to consider a total package deal for all or group of some equipment with a total lowest quoted price for the package rather than lowest prices for the individual items.

16. Standard

- The equipment supplied must be tropical zed and it must be capable of functioning under the climatic conditions of Sheringal, Dir Upper.
- There shall be no deviation from specification and country of make as provided with each item. In case of any ambiguity in specification/accessories needed for the full functioning of the equipment, the firm must clear it with the Purchase Committee. However, the decision of the Purchase Committee will be final.
- The goods with standard accessories supplied under this contract shall confirm to the standard maintenance in the technical specification along with the set of operational and maintenance manual it will be responsibility of the supplier to quote equipment in complete package.

17. Training

- The firm supplying the item/ equipment(s) will demonstrate the operation / working of the equipment(s) to the satisfaction of the quarter concerned and provide training if needed.

18. Calibration of item/equipment

- The approved firm will install the equipment(s) in the presence and to the satisfaction of the Purchase Committee. In case of any defect in the supplied equipment(s) or if it is not in accordance with the desired specification, the item will be changed at the cost of the supplier.

19. Guarantee / Warranty

The tenderer would give comprehensive onsite warranty / guarantee that the goods / stores / articles would continue to conform to the description and quality as specified for a period of **(one year for non stationary items & 03 months for stationary items)** from the date of delivery of the said goods/stores/articles to be purchased and that notwithstanding the fact that the purchaser may have inspected and/or approved the said goods/stores/article, if during the aforesaid period of one year, the said goods/stores/articles, be discovered not to conform to the description and quality aforesaid or have determined (and the decision of the Purchase Committee in that behalf will

be final and conclusive), the purchaser will be entitled to reject the said goods/stores/articles or such portion thereof as may be discovered not to conform to the said description and quality, on such rejection the goods/articles/stores will be at the seller's risk and all the provisions relating to rejection of goods etc. shall apply.

- The tenderer shall, if so called upon to do, replace the goods etc., or such portion thereof as is rejection by Purchase Committee, otherwise the tenderer shall pay such damage as may arise by the reason of the breach of the condition herein contained. Nothing herein contained shall prejudice any other right of the Purchase Committee in that behalf under this contract or otherwise.
- The tenderer shall also replace machinery and equipments, in case it is found defective which cannot be put to operation due to manufacturing defect, etc. In case of machinery and equipment specified by the purchase Committee, the tenderer shall be responsible from carrying out annual maintenance and repairs on the terms and conditions as may be agreed. The tenderer shall also be responsible to ensure adequate regular supply of spare parts needed for a specific type of machinery and equipments whether under their annual maintenance and repairs rate contract or otherwise. In case of change of model he will give sufficient notice to the Purchase Committee who may like to purchase spare parts from them to maintain the machinery and equipments in perfect condition.
- The firm must have a representative office in Peshawar/Islamabad/Lahore, which can be contacted in case of any problem encountered during the working of equipment(s).

20. Conforming Tender

- A conforming tender is defined as follows:
 - i. It is submitted on time.
 - ii. It is lodged at the nominated place.
 - iii. All required forms are completed.
 - iv. Documents are properly signed.
 - v. It complies with the tender conditions.
 - vi. There are no commercial and contractual qualifications to the tender.
- A non-conforming tender is one, which does not satisfy the above requirements and it may be rejected.

21. Disqualification of Tender

- The tenderer shall observe all relevant statutory and legal requirements when complete the tender. Any Tender engaged in collusion with other tenderer shall be disqualified from tendering.

22. Delivery Schedule

- The Delivery Schedule should be Two (2) months from the date contract after issuance of Supply Order & for Generator in case of import to be mutually decided but not exceeding four (4) months.
- Keeping in view the actual problems/delays in delivering the respective items, Delivery Schedule can be relaxed with the approval of the Competent Authority upon written request with proof of reasons quoted.

22. Delay in Delivery

- In case of non extension in the delivery period, the recovery shall be made on the basis of following percentages of value of goods stores / work completion which the tenderer has failed to supply / complete the work.

Conditions with Percentage

- a. Delay up to one fourth period of the prescribed delivery period.

2.5 %

- b. Delay exceeding one fourth but not exceeding half of the prescribed period.

5.0 %

- c. Delay exceeding half but not exceeding three fourth of the prescribed period.

7.5 %

- d. delay exceeding three fourth of the prescribed period.

10.0 %

- Fraction of a day in reckoning period in supplies shall be eliminated if it is less than half a day. The maximum amount shall be 10%.
- The security money shall be refunded immediately after expiry of warranty period provided there is no breach of contract by the supplier and provided there is no outstanding against the tenderer.

24 Recoveries

Recoveries of liquidated damages, short supply, breakage, rejected articles shall ordinarily be made from bills.

Contract Agreement

This agreement is made this day date-month-2019 between the **SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL, DIR UPPER, KHYBER PAKHTUNKHWA** (hereinafter called as Party One which shall include the successors and assignees in the Board/Centre) and the Tenderer/Contractor, M/S XYZ (hereinafter called as Party Two which includes its successors and assignees)

Whereas the Party One having invited tender, **SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL, DIR UPPER, KHYBER PAKHTUNKHWA** decided to accept the tender of **M/S XYZ**

The detail of items is as under for the supply of (quoted item in tender)

SUPPLY ORDER FOR THE PURCHASE OF -----, TENDER # 00/2019, Supply Order # SBBU/Proc/000 DATED 00-00-2019, amounting to Rs-000,000/- Rupees

Now this deed witnessed as follows:

- (a) The SBBU Dir Upper hereby appoints M/S XYZ for the work/items mentioned in **S.O NO # SBBU/Proc/000 DATED 00-00-2019, TENDER # 00/2019, & SBBU** agrees to pay the amount mentioned in **said supply order & tender.**
1. The work/items will be supplied to **SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL, DIR UPPER, KHYBER PAKHTUNKHWA** as per specifications mentioned in the supply order and tender documents as well as warranty.
 2. Delivery of work/items and relevant bill(s) to **SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL, DIR UPPER, KHYBER PAKHTUNKHWA** will be completed within the specified period from the date of contract as per supply order conditions.
 3. All the items will be delivered at **SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL, DIR UPPER, KHYBER PAKHTUNKHWA** at the cost of the firm/supplier.
 4. The function and operation of the equipments/items will be demonstrated at **SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL, DIR UPPER, KHYBER PAKHTUNKHWA** by the firm/supplier.
 5. Sub-standard or not according to specification, the items will be rejected and returned on the expenses of the firm/supplier.
 6. A performance bond @ 10% (Rs-00,000/-) of the Supply Order amount in the shape of bank draft/call deposit/D.D./Bank Guarantee will be submitted to **Treasurer Shaheed Benazir Bhutto University Sheringal, Dir Upper** at the time of contract. The performance bond security will be returned after completion of supply order.
 7. Failure in supply of items within stipulated period shall entail forfeiture of performance bond security.
 8. The Party Two agrees for completion of the job according to the designs and samples approved by the SBBU within specified period from the date of contract. In case of delay, the SBBU reserves the right to impose a penalty up to 10% of the total amount of the contract as per tender terms & conditions.

Signature: _____

Name: M/s **Supplier**

Seal of the firms: _____

Treasurer

SBBU Sheringal, Dir Upper

Witness # 1

Witness # 2

Part 1 List of Lab Chemicals & Equipment required for Department of Botany, Wari Campus

S.#	Name of Item	Specification	Quantity
01	Tris, (Trisaminomethane)		2 kg
02	Sucrose		5 kg
03	Magnissium Chloride (MgCl ₂)		500 g
04	Triton X-100		100 ml
05	Sodium Chloride (NaCl)		1 kg
06	EDTA (Ethylenediamine tetra acetate)		2 kg
07	Phenole		5 liter
08	Chloroform		5 liter
09	Iso-amyl alcohol		500 ml
10	Isopropanol		2 liter
11	Ethanol		5 liter
12	SDS (Sodiumdodecyl sulphate)		500 g
13	Proteinase K (Enzyme)		10x 1 ml
14	Agarose		5 kg
15	Ethedium Bromide		500 mg
16	Bromothiomol Blue		500 mg
17	Sodium-acetate		1 kg
18	Agarose gel electrophoresis cell (Bio-Rad)		1 Piece
19	Bio-Rad Gel Doc LabX		1 Set
20	Acrylamide		5 x 1 kg
21	Bis acrylamide		3x250 g
22	Amunium per Sulphate		500 g
23	TEMED (Tetramethylethylenediamine)		500 ml
24	Potassium Chloride		500 g
25	Sodium Hydrooxide		1 kg
26	HCl		2x 1 liter
27	Ammonium sulfate		500 mg
28	dNTPs (dATP, dGTP, dTTP, dCTP)		10 x 1 ml each
29	Taq. Polymerase (Enzyme)		10x 1 ml
30	Biometra T3 Thermocycler (PCR apparatus)		1 Piece
31	V16-2 polyacrylamide gel electrophoresis apparatus		1 Piece
32	Plates for PAGE		10 pairs
33	Eppendorf Model 5418 Microcentrifuge		1 Piece
34	Micro pippett 1-10 µl		2 Nos.
35	Micro pippett 10-100 µl		2 Nos.

36	Micro pippett 100-1000 µl		2 Nos.
37	Vacuum concentrator 5301		1 No
38	Microcentrifuge Tubes 1.5 ml		10x bags of 500
39	Microcentrifuge Tubes 0.02 ml		10x bags of 500
40	Beakers 100 ml		10 Nos.
41	Beakers 1000 ml		5 Nos.
42	Graduated Cylenders 10ml		5 Nos.
43	Graduated Cylenders 100ml		5 Nos.
44	Graduated Cylenders 100ml		5 Nos.
45	PCR Machine		1 Unit
46	Gel Doc System		1 Unit
47	Large Sized Centrifuge Machine		1 Unit

Part 2 Detail of Prospectus & Calendars required for Academics Office SBBU Sheringal

S.#	Name of Item	Specification	Quantity
01	Prospectus 100 to 120 pages	<ol style="list-style-type: none"> 1 . 4 colors Printing (on 115 gram Art Paper). 2 . Number of Pages 200 approximately. 3 . Page Size 9.5 X 7.25(inches) 4 . Title Page on 310 gram Art Hard card with Lamination and Spot UV. 5 . 1Page Admission Form (Double side 100 gram) in Legal Size. (Attached in Prospectus) 6 . Machine gum binding. 7 . Envelope for Prospectus 8 . 1Page Hostel Admission Form (Double side) in Legal Size (Attached in Prospectus) 9 . 1Page Affidavit Form (Double side) in Legal Size (Attached in Prospectus) 10 . 	3000 Copies
02	Admission Form	1Page Admission Form (Double Side) colored in Legal size (Separate from	2000 Nos.

		Prospectus)	
03	Hostel Admission Form	1Page Hostel Admission Form (Double Side) colored in Legal size (Separate from Prospectus)	2000 Nos.
04	Calendar(Wall) 05 Pages	Four colors (on 128 gram Art paper or mat paper) and one black and white sheet for title	200 Nos.
05	Calendar(Table) 12 Pages	Four colors (on 260 gram Hard Card).	200 Nos.

Part 3 Detail of Generator 50 KVA Diesel required for Main Project SBBU Sheringal

S.#	Name of Item	Specification	Quantity
01	Diesel Generator 50 KVA	Generator 50 KVA (Diesel with all solutions, i.e. civil work, automatic changeover, sound & weather protected canopy), ATS (automatic transfer switch), 35mm 4 core copper cable (good quality) armored minimum 100 meters, including excavation, refilling up to 1.50 meter depth, lying breaks on edges, sand filled, 02 feet height PCC 1:2:4 PAD etc (Cater Pillar, FG Wilson, Siemens, Mitsubishi, Cummins Power or equivalent (for technical quarry please contact Mr. Naseeb Zada S/E Electric Projects 0321-9327910)	01 Complete Unit

Part 4 Detail of Server Rack required for Networking Department SBBU Sheringal

Product Specifications

International Branded Rack Server (HP/IBM/Dell or equivalent)

Item	Description of Requirement	Compliance	Quantity
Chassis	Branded 2U Rack Mountable along with rack mounting and arm management kits	M	Quantity 01
CPU	Two latest Generation ® Intel Xeon-Silver 4114 (2.2GHz/10 Cores processors	M	
Memory	24DIMM slots 128GB (4 x 32GB) DIMMS scalable upto 768GB using DDR4 (RDIMM) operating at 2600 MHz	M	
HDD Bays	Support up to 8SFF, HDD/SSD	M	
Optical drive Bay	DVD-RW Optical Drive	M	

Hard disk drive	6 x 1.2 12G SAS 10K 2.5in SFF Hot-plug Hard Drives	M
Controller	PCIe 3.0 based 12Gb/s SAS Raid Controller with RAID 0/1/1+0/5/50/6/60	M
Networking	Embedded 1Gb 4-port network adaptor	M
Interfaces	Serial – 1 Micro SD slot - 1 USB 3.0 support With Up to 5 total: 1 front, 2 rear, 2 internal (secure)	M
Bus Slots	Six PCI-Express 3.0 slots, at least two x16 and four x8 slots	M
Power Supply	2 x 500W Hot plug Power Supply with Power Backplane configurable to support power redundancy	M
FAN	Redundant hot-plug system fans	
Embedded system management	Should support monitoring ongoing management, service alerting, reporting and remote management with embedded Gigabit out of band management port Server should support configuring and booting securely with industry standard Unified Extensible Firmware System should support RESTful API integration	M
Security	Power-on password Serial interface control Administrator's password UEFI Should support upto 12 customizable user accounts on out of band management port and SSL encryption Should also supports directory services integration TPM 1.2	M
Operating Systems and Virtualization Software Support	Microsoft Windows Server Canonical Ubuntu Red Hat Enterprise Linux (RHEL) SUSE Linux Enterprise Server (SLES) Oracle Solaris VMware Citrix XenServer	M
Warranty	<ul style="list-style-type: none"> Server Standard Warranty includes 3-Year Onsite support (Manufacturer Authorization Letter in the name of end user) 	M

International Branded 42 U Rack (HP/IBM/Dell or equivalent)

Item	Description of Requirement	Compliance	
International Branded 42U Rack with KVM	<u>42U RACK WITH 8 Ports KVM Console Digitus Germany/HP/Dell or Equivalent</u> 1- 600*1000*2000(42U)	M	Quantity 01

	<p>2- 3 fixed shelf</p> <p>3- 4 fans EU standard</p> <p>4- 4 casters</p> <p>5- 4 adjustable feet,</p> <p>6- Front Mesh Door</p> <p><u>KVM CONSOLE SPECS</u></p> <p>1- Control panel with TFT 43.2 cm (17"), keyboard, touchpad, and built-in KVM switch</p> <p>2- Control up to 256 computers by KVM cascading</p> <p>3- Non-reflective and break-proof TFT monitor 43.2 cm (17")</p> <p>4- Optimum resolution: 1280x1024 at 60 Hz</p> <p>5- Highest resolution: 1920x1080 at 60 Hz</p> <p>6- Console could save almost 85 % space</p> <p>7- Contrast rate: 1000:1</p> <p>8- Supports: 16.7 M colors</p> <p>9- Ultra thin keyboard</p> <p>10- Mouse touch board with two function button</p> <p>11- The console can be totally pulled out from the cabinet and the TFT screen can be tilted by 120 degrees</p> <p>12- Front panel with lock to prevent damage by accident</p> <p>13- Space saving steel sheet housing (1U height), black RAL 9005</p> <p>14- Connection cables included (1.8 m)</p> <ul style="list-style-type: none"> • (Manufacturer Authorization Letter in the name of end user) 		
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Wireless Access Points (Indoor) must support the following With License (HP/Cisco/Ruckus or equivalent)

Item	Description of Requirement	Compliance	
Wireless Access Point with Licenses	<p>The AP's should support 802.11 a/b/g/n/ac standards</p> <p>1. Access Point must support 802.11 ac Wave 1 standards.</p> <p>2. The access point should work on 2.4GHz and 5 GHz band simultaneously.</p> <p>3. Access Point should support 300 Mbps (2.4 GHz) and 867 Mbps (5 GHz).</p> <p>4. Access Point should support Channelization of 20</p>	M	Quantity 10

MHz, 40 MHz and 80 MHz

5. Access point must work on 2 x 2 MIMO technologies.
6. Two Spatial Streams support with intelligent software-controlled antenna technologies.
7. Support backward compatibility with legacy 802.11 Clients.
8. Access point must support integrated antenna array system which is software controlled for clients and interference mitigation.
9. Integrated antennas which support 64 of unique patterns to support reliable WiFi signals and interference rejection
10. Antenna must support 3 dBi physical antenna gain and 4 dB (TX/RX) Additional Gain. Maximum Overall Strategic gain of Access Point should be 6dBi.
11. Access Point should support 10 dB interference rejection
12. Access Point must support -99 dBm Receive Sensitivity.
13. Access Point must optimize RF channel selection on the basis of channel capacity.
14. Access Point must be able to use all RF channel (not only non-overlapping channels) and maintain channel history with respect to Channel interference and throughput.
15. Access Point should support Space time Block coding (STBC), Low Density Parity Check (LDPC), Maximum Likelihood Decoding (MLD) for Better Downlink and Uplink Transmission.
16. AP should support 802.3af POE standards.
17. AP must have one Auto MDX, Auto Sensing Gigabit PoE Ethernet support
18. Wireless Security: WEP, WPA-PSK, WPA-TKIP, WPA2 AES, 802.11i
19. Support integrated NAT and DHCP as Standalone Access Point.
20. The access point should support 802.1q VLAN tagging
21. Support up to 30 VOIP clients.

	<p>22. 100 Concurrent clients support.</p> <p>23. AP should support IP multicast video streaming</p> <p>24. Device must support IPv4, IPv6 and Dual Stack</p> <p>7- Mounting Bracket should be Quoted</p> <ul style="list-style-type: none"> • (Manufacturer Authorization Letter in the name of end user) 		
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Wireless Controller must support the following With License (HP/Cisco/Ruckus or equivalent)

Item	Description of Requirement	Compliance	
Wireless Controller	<p><u>Wireless Controller must support the following</u></p> <ol style="list-style-type: none"> 1. Controller should be able to support up to 150 access points 2. Controller should support up to 4,000 concurrent user session. 3. Controller should support 1+1 redundancy with auto synchronization. 4. Controller must have two Gigabit Ethernet (10/100/1000) ports. 5. Support automatic channel adjustment 6. Support automatic transmits power adjustment on each AP to achieve optimal performance. 7. Controller must support integrated Captive portal. 8. Support smart mesh networking and also show the mesh topology on floor plan. 9. Support 256 WLAN SSID on network. 10. Support integrated DHCP server 11. Controller should be able to present a customizable dashboard. 12. Controller should Support HotSpot 2.0 services. 13. System should support Dynamic Pre-shared Key with 63-bit unique Key Generated by Controller 14. System must detect the Rogue Access point and indicate malicious AP and Mac Spoofing. 15. System must prevent the clients to communicate with Malicious Access. 		Quantity 01
		M	

	<p>16. Controller should support Guest network and policies with ease of use.</p> <p>17. Controller should support for Autonomous and Social Media WLANs.</p> <p>18. Support for per SSID and user-based rate limiting.</p> <p>19. Controller should support WEP, WPA-TKIP, WPA2-AES, 802.11i, 802.1X.</p> <p>20. Should support authentication via LDAP, Active Directory and RADIUS sever and also have the internal local database.</p> <p>21. Support 802.1Q (VLAN) per SSID, dynamic VLANs and VLAN Pooling.</p> <p>22. Controller should support Channel fly to automatically select the RF Channel with greater Throughput.</p> <p>23. Controller should support ACL (Access list) layer 2, layer 3 and layer 4.</p> <p>24. Controller should support the OS based policies for iOS, Android, windows and Linux.</p> <p>25. Support Application visibility.</p> <p>26. Controller have the ability to tunnel data from the access points to the controllers</p> <p>27. Controller should support SMTP outbound authentication and TLS encryption.</p> <p>28. Support SNMP v2 and v3</p> <p>29. 1 year Manufacturer Support should be quoted.</p> <ul style="list-style-type: none"> • (Manufacturer Authorization Letter in the name of end user) 		
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Firewall with 1 year Subscription (Fortygate/Cisco/Watch Guard/Sophos or equivalent)

Item	Description of Requirement	Compliance	
Firewall	<p><u>Firewall Specifications</u></p> <p>1-Interfaces 8 Gb (included); Optional 8 Gb, 8 Gb fiber, 4 x 10 Gb fiber</p> <p>2-Application Proxies HTTP, HTTPS, SMTP, FTP, DNS, TCP-UDP, POP3, POP3S, SIP, H.323</p> <p>3-Intrusion Prevention (DOS, DDOS, PAD, port scanning, spoofing attacks, address space probes</p> <p>4-User Authentication with transparent Windows authentication</p>	M	Quantity 01

5-Firewall Throughput 19.6Gbps 6-VPN Throughput 5.2Gbps 7-AV Throughput 3.5 Gbps 8-IPS Throughput 5.7Gbps 9-UTM Throughput 3.1Gbps 10-Concurrent Sessions 3,800,000 11-Branch Office VPN Tunnels 250 12-Mobile VPN with SSL/L2TP 250 13-Mobile VPN with IPSec 250 14-Dynamic NAT 15-Static NAT 16-One to One NAT 17- VLAN 300 18- SD-WAN Dynamic Path Selection 19- Wan Failover 20- Multi Wan Load Balancing 21- Server Load Balancing 22-Traffic Management/QoS 23-Dynamic Routing 24-VoIP (SIP and H.323) Support <ul style="list-style-type: none"> • (Manufacturer Authorization Letter in the name of end user) 		
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Mandatory instruction to the bidders.

- Genuine Manufacturer’s Authorization Letter will be provided by the bidder issued on manufacturer’s letter pad in favor of Shaheed Benazir Bhutto University upper Dir. The same shall be verified from the Manufacturer / issuing authority.
- For rapid warranty claims and to minimize the hardware replacement time, quoted products must have at least one manufacturer’s parts depot in Pakistan for mentioned hardware category. Contact numbers and address must be submitted along with the quotation.
- Any product inferior to the given specification / University requirement shall be disqualified straight away.
- Compliance sheet must be provided by the bidder along with the quotation. Bidder must submit an undertaking on a stamp paper that the quoted items 100 % comply the requirement.
- Shaheed Benazir Bhutto University upper Dir shall only accept the branded equipment imported through proper channel.
- Company must be a registered entity with local/physical presence in KPK having registration with KPRA. Documentary evidence shall be required.
- server should have support for the following functions.
 - DNS

- Bandwidth controller
- Webhosting
- Isa server
- Inbound and outbound traffic controller

The installation, configuration and after sales services are also included in the same server requested. Failing which will also leads to disqualification of the bidder.

For Technical Quarry, please contact Mr. Ali Zia Network Administrator (0300-9004363 & 0321-5359884)