

Bidding Document for Procurement of Software and IT Equipment



CENTRAL PURCHASE COMMITTEE

Liaquat University of Medical & Health Sciences Jamshoro

Purchase and Stores Department, LUMHS, Jamshoro.
PHONE: +92.22.921.3350 | EMAIL: STORESECTION@LUMHS.EDU.PK

NOTE:

The bidder is expected to examine the Bidding Documents, including all instructions, forms, terms and specifications. Failure to furnish all information required by the Bidding documents or submission of a Bid not substantially responsive to the Bidding Documents in every respect would result in the rejection of the Bid.

INVITATION TO BID

1. The Central Purchase Committee, LUMHS requests Tender Bids in sealed envelopes for Procurement of Software and IT Equipment mentioned in Schedule–B of this document.
2. The bidder should submit two separate sealed envelopes containing technical and financial proposals proposal should be submitted in accordance with the parameters of technical evaluation given in the bidding document.
3. The bidding document can be downloaded from the website http://www.lumhs.edu.pk/tenders_and_ppms.pprsindh.gov.pk At the time of submission of bids, the bidders are required to submit **Pay Order/ DD** in the name of **Vice-Chancellor Liaquat University of Medical & Health Sciences Jamshoro** according to the table given below.

LOT#	ITEM HEADS	Tender Document Amount (Non-Refundable)	Bid Money/Security
01	Network Equipment/Accessories	Rs. 2000/-	2% of Quoted Amount
02	Storage	Rs. 2000/-	
03	Desktops and Laptops	Rs. 2000/-	
04	Smart Class Solution	Rs. 2000/-	
05	Software	Rs. 2000/-	
06	Display	Rs. 2000/-	
07	Miscellaneous	Rs. 2000/-	

4. All bids must be accompanied by a call deposit as mentioned above which is required to be deposited along with their bids in the favor of Liaquat University of Medical & Health Sciences, Jamshoro; in case of failure the tender document will not be entertained. Total Amount of performance security will be 5% which will be submitted at the time of execution of contract. The Technical bids will be publicly opened in the office of the Chairman, Central Purchase Committee, Liaquat University of Medical & Health Sciences, Jamshoro, at **1130 hours on 15th May, 2019.**
5. Bidder will have to submit undertaking on judicial paper worth **Rs. 50/-**, confirming that the information given is correct and the firm has never been black listed from any government/private organization. In case the information given by the bidder is found to be incorrect, legal action will be taken against them, besides blacklisting the firm. In case of any dispute the decision of the competent authority shall be final.
6. Bidders must submit bids for each item mentioned in Schedule-B of this document. Failure to this clause will disqualify the bidder.
7. Liaquat University of Medical and Health Sciences-Jamshoro will not be responsible for any costs or expenses incurred by bidders in connection with the preparation or delivery of bids.
8. Bidders shall submit Bids, which comply with the Bidding Documents. Alternative Bids will not be considered. The attention of bidders is drawn to the provisions of Clause on “Determination of Responsiveness of Bid” regarding the rejection of Bids, which are not substantially responsive to the requirements of the Bidding Documents.
9. As authority competent to accept the tender, the Purchaser reserves the right to accept or reject one or all the tenders without assigning any reason thereof and to divide business amongst more than one bidder and also increase or decrease the quantity of items and extend the opening date without any reason thereof.
10. All prices quoted must include any Taxes applicable, such as GST, Income Tax, etc. If not specifically mentioned in the Quotation, it will be presumed that the prices include all the taxes.
11. Failure to supply items within the stipulated time period will invoke penalty as specified in Schedule-A of this document. In addition to that, Call Deposit amount will be forfeited and the company will not be allowed to participate in future tenders as well.
12. Execution/installation of the said tendered equipment will be carried out at Liaquat University of Medical and Health Sciences and other departments/sites described by Chairman, Central Purchase Committee, LUMHS-Jamshoro.
13. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

**Chairman, Central Purchase Committee
Liaquat University of Medical and Health Sciences Jamshoro**

BIDDING DATA SHEET

1	Name of Procuring Agency	Liaquat University of Medical & Health Sciences Jamshoro
2	Brief Description of Tender	Procurement of Software and IT Equipment
3	Procuring Agency Address	Purchase and Stores Department, LUMHS, Jamshoro. PHONE: +92.22.921.3350 EMAIL:
4	Document Availability	HTTP://WWW.LUMHS.EDU.PK/TENDERS PPMS.PPRSINDH.GOV.PK
5	Amount of Bid Money/Security	2% of Total Bidding Cost
6	Period of bid validity	90 Days
7	Performance Security	5% of the price of contract.
8	Deadline for submission of bid with time	11:30 am 15 th May 2019
9	Venue, Time & date of Bid opening	Office of the Chairman Central Purchase Committee LUMHS, Jamshoro
11	Liquidity Damages	1% of the Contract Price of the delayed or Service per day or part thereof.
12	Bid issued to firm	
13	Deposit receipt No. and Date	
14	Bidding Document cost	PKR 2000/- Each LOT

AUTHORITY ISSUING BIDDING DOCUMENT

**INSTRUCTIONS TO BIDDERS
INTRODUCTION**

1. Scope

- 1.1 The Purchaser wishes to receive Bid for the Computer Hardware Equipment (hereinafter referred to as Goods) and provide services such as installation, configuration, testing, training, support, after sale services and other such obligations specified hereinafter (hereinafter referred to as Services).
- 1.2 The bid is to be completed and submitted to the Purchaser in accordance with these Instructions to Bidders.

2. Eligible Bidder

- 2.1 The Invitation for Bid is open to the firm based in Pakistan representing with registered office in Pakistan.
- 2.2 The bidder shall provide documentary evidence of NTN, GST & SRB registration and name of their firm must be in active tax payer list.
- 2.3 The bidder shall provide certified copy of sole agent/ distributor, last three years audit reports and minimum turnover of 5 million.

3. Eligible Goods

- 3.1 The Goods and Services to be supplied under the Contract shall have their origin in eligible member countries, as listed below and all expenditures made under the contract will be limited to such Goods and Services.

Afghanistan	Mongolia
Australia	Micronesia, Federal States
Austria	Myanmar
Bangladesh	Nauru
Belgium	Nepal
Bhutan	Netherlands
Burma	New Zealand
Cambodia	Norway
Canada	Pakistan
China, People's Republic of	Papua New Guinea
Cook Islands	Philippines
Denmark	Russia
Fiji	Singapore
Finland	Solomon Islands
France	Spain
Germany,	Sri Lanka
Hong Kong	Sweden
India	Switzerland
Indonesia	Taipei, China
Italy	Thailand
Japan	Tonga
Kazakhstan	Turkey
Kiribati	Tuvalu
Korea, Republic of	United Kingdom
Kyrgyz Republic	UAE
Laos People's Democratic Republic	United States of America
Malaysia	Vanuatu
Maldives	Vietnam
Marshall Island	Western Samoa

- 3.2 For purposes of Clause 3.1 above, "origin" shall be considered to be the place where the Goods are produced or from which the Services are provided. Goods are produced when, through manufacturing, processing or substantial and major assembling of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.

4. Cost of Bidding

- 4.1 The bidder shall bear all costs associated with the preparation and delivery of its Bid, and the Purchaser will in no case be responsible or liable for those costs.

5. Joint Ventures

5.1 Bids submitted by a joint venture of two or more companies or partners shall comply with the following requirements:

- a) the Bid, and in case of successful Bid, the Contract form, shall be signed by all so as to be legally binding on all the partners;
- b) one of the partners shall be authorized to be in charge; and this authority shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners;
- c) the partner in charge shall be authorized to incur liabilities, receive payments and receive instructions for and on behalf of any or all partners of the joint venture;
- d) all partners of the joint venture shall be liable jointly and severally for the executing of the Contract in accordance with the Contract terms, and a relevant statement to this effect shall be included in the authorization mentioned under (b) above as well as in the Bid Form and the Form of Agreement (in case of a successful Bid); and
- e) a copy of the agreement entered into by the joint venture partners shall be submitted with the Bid.

6. Assurance

6.1 The successful bidder will be required to give satisfactory assurance of its ability and intention to supply the Goods and Services pursuant to the Contract, within the time set forth therein.

BIDDING DOCUMENTS

7. Contents of Bidding Documents

7.1 The Services required, bidding procedures and Contract terms are prescribed in the bidding documents. In addition to the Invitation for Bid, the bidding documents include:

- a) Instructions to Bidders
- b) Bid Form
- c) Schedules:
 - Schedule - A - Special Stipulations
 - Schedule - B - Price Schedule
- d) Bid Security Form
- e) Performance Security Form
- f) Contract Form
- h) Conditions of Contract
- i) Technical Specifications

7.2 The bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents. Failure to furnish all information required by the Bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will result in the rejection of the bid.

8. Clarification of Bidding Documents

8.1 The prospective bidder requiring any further information or clarification of the bidding documents may notify the Purchaser in writing or by telephone or by visiting at the following address:

**Chairman, Central Purchase Committee
Liaquat University of Medical and Health Sciences
Jamshoro Sindh Pakistan**

The Chairman, Central Purchase Committee, LUMHS will respond in writing to any request for information or clarification of the bidding documents which it receives no later than three (03) days prior to the deadline for the submission of bid.

9. Amendment of Bidding Documents

9.1 At any time prior to the deadline for submission of bid, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by the prospective bidder, modify the bidding documents by amendment

9.2 The amendment shall be part of the bidding documents, pursuant to Clause 7.1, will be notified in writing or by telex, or by fax to the prospective bidder who has received the bidding documents, and will be binding on him. Bidder is required to acknowledge receipt of any such amendment to the bidding documents.

9.3 In order to afford the prospective bidder reasonable time in which to take the amendment into account in preparing its bid, the Purchaser may, at its discretion, extend the deadline for the submission of bid.

PREPARATION OF BID

10. Language of Bid

10.1 The bid prepared by the bidder and all correspondence and documents relating to the bid exchanged by the bidder and the Purchaser shall be written in the English language. Any printed literature furnished by the bidder may be written in another language, provided that this literature is accompanied by an English translation, in which case, for purposes of interpretation of the bid, the English translation shall govern.

11. Documents Comprising the Bid

11.1 The bid prepared by the bidder shall comprise the technical and financial proposal in accordance with clause 11.2 & 11.3. However, the evaluation of proposal submitted shall be inclusive of, but not be limited to, the following factors:

11.2 Financial Proposal

11.2.1 The Financial Proposal of the bid shall comprise the following documents:

a) Bid Form

The Bidder shall complete the Bid Form in accordance with Clause 12.

b) Price Schedule

The Bidder shall complete the appropriate Price Schedule furnished in the Bidding Documents in accordance with Clauses 13 & 14.

c) Bid Security

The bidder shall furnish Bid Security in accordance with Clause 18.

11.3 Technical Proposal

11.3.1 The Technical Proposal shall comprise the following documents:

- (a) Documentary evidence establishing, in accordance with Clause 15, that the bidder is eligible to bid.
- (b) Documentary evidence establishing, in accordance with Clause 16, that the bidder is qualified to perform the Contract if its Bid is accepted.
- (c) Documentary evidence establishing, in accordance with Clause 17, that the Goods to be supplied by the bidder conform to the bidding documents.
- (d) Power of attorney in accordance with Clause 20.2.

12. Bid Form

12.1 The bidder shall complete the Bid Form duly signed by the authorized personnel along with the stamp of the company and all the Schedules furnished in the bidding documents.

13. Bid Prices

13.1 The bidder shall complete Schedule B Price Schedule for all the items in accordance with the instructions contained in this document.

13.2 Prices quoted in the Price Schedule for the Goods and Services should be entered in the following manner:

- (i) The price of the Goods will be quoted Cost Insurance Freight (CIF) Jamshoro (Pakistan) at the address provided in schedule A.
- (ii) For services (training) in the use of the Goods.

13.3 Prices quoted by the bidder shall remain fixed and valid until completion of the Contract performance and will not be subject to variation on account of escalation.

14. Bid Currencies

14.1 Prices shall be quoted in Pak Rs./US\$.

15. Documents Establishing Eligibility of the Bidder and the Goods

15.1 The bidder shall furnish, as part of its bid, certification establishing both the bidder's eligibility to bid and that the origin of the Goods is an eligible source country, pursuant to Clause 3. The bidder offering to supply Goods under the contract shall establish to the purchaser's satisfaction that the bidder has been duly authorized by his Principal namely M/s _____, to supply the Goods for the Contract.

16. Documents Establishing the Bidder's Qualifications to Perform the Contract

16.1 The documentary evidence of the bidder's qualifications to perform the Contract, if its Bid is accepted, shall establish to the Purchaser's satisfaction prior to the award of Contract:

- (a) that, in the case of a bidder offering to supply Goods under the Contract which the bidder did not manufacture or otherwise produce, the bidder has been duly authorized by the Goods' manufacturer or producer to supply to and install the Goods in the Purchaser's country; The bidder shall attach / submit Valid Authorization Letter (Not Older than One Year) from the Principal.
- (b) that, the bidder has the financial, technical and production capability necessary to perform the Contract, including capacity in terms of personnel for the purpose of carrying out the Services.
- (c) that, the bidder not doing business within the Purchaser's country, the bidder is, or will be (if the Contract is awarded to it), represented by an agent in that country equipped and able to carry out the maintenance, repair and spare parts-stocking obligations prescribed in the Conditions of the Contract and or Technical Specifications.

17. Documents Establishing the Goods' Conformity to the Bidding Documents

17.1 The documentary evidence of the Good's conformity to the bidding documents may be in the form of literature, drawings and data, and shall furnish:

- (a) a detailed description of the Goods' essential technical and performance characteristics;
- (b) a list, giving full particulars, of trained personnel, for training and servicing including available sources spare parts and special tools, etc. necessary for the proper and continuing functioning of the Goods.

18. Bid Security

18.1 Pursuant to Clause 11.2.1(c), the bidder shall furnish, as part of its bid, a bid security in the amount of not less than two percent of the Total Bid Price.

18.2 The bid security shall be denominated in Pak Rupees and shall be in one of the following forms;

- (a) bank guarantee issued by a reputable bank operating in Pakistan in the form provided in the bidding documents;
- (b) cashier's cheque or certified cheque.

18.3 The bid not secured in accordance with Clauses 18.1 and 18.2 above will be rejected by the Purchaser as non-responsive.

18.4 An unsuccessful bidder's bid security will be discharged or returned, or both, as promptly as possible upon award of Contract.

18.5 The bidder's bid security will be returned, upon the bidder's executing the contract, pursuant to Clause 34, and furnishing the performance security, pursuant to Clause 35.

18.6 The bid security may be forfeited:

- (a) if the bidder withdraws its bid during the period of bid validity specified by the bidder on the Bid Form; or
- (b) if the bidder does not accept the correction of the Total Bid Price pursuant to Clause 27; or
- (c) if the bidder fails;
 - (i) to sign the contract in accordance with Clause 34, or
 - (ii) to furnish the performance security in accordance with Clause 35.

19. Period of Validity of Bid

19.1 The bid shall remain valid for ninety (90) days from the date of bid opening prescribed by the Purchaser, pursuant to Clause 22.

19.2 Notwithstanding Clause 19.1 above, the Purchaser may solicit the bidder's consent to an extension of the period of bid validity. The request and the responses thereto shall be made in writing or by fax. If the bidder agrees to the extension request, the validity of the bid security provided under Clause 18 shall also be suitably extended. The bidder may refuse the request without forfeiting its bid security. The bidder will not be required or permitted to modify its bid.

20. Format and Signing of Bid

20.1 The bidder shall prepare **one (1) original** and **one (1) copy** of the documents comprising the **Technical and Financial Bid** as described in Clause 11, clearly marking each "ORIGINAL" and "COPY" as appropriate. In the event of any discrepancy between the **ORIGINAL** and the **COPY**, the ORIGINAL shall govern.

- 20.2 Prescribed Bid Form and Schedules shall be used and not to be retyped. The original and copy of the bid shall be typed or written in indelible ink (in the case of copies, photocopies are also acceptable) and shall be signed by the bidder or a person duly authorized to sign on behalf of the bidder. Such authorization shall be indicated by written power of attorney accompanying the bid. All pages of the bid where entries and amendments have been made shall be initialed by the person signing the bid.
- 20.3 The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid

SUBMISSION OF BID

21. Sealing and Marking of Bid

21.1 The bidder shall seal the original and each copy of the Technical & Financial Bid separately in an inner and an outer envelope, duly marking the envelopes as "ORIGINAL" and "COPY".

21.2 The inner and outer envelopes shall:

(a) be addressed to the following address:

**Chairman, Central Purchase Committee
Liaquat University of Medical and Health Sciences, Jamshoro, Sindh-Pakistan**

(b) bear the following identification:

**Bid for "LUMHS COMBINE TENDER"
Procurement of Software and IT Equipment
DO NOT OPEN BEFORE 1130 hours on 15th May, 2019**

21.3 In addition the inner envelope shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared "Late".

21.4 Fax bid will not be entertained.

22. Deadline for Submission of Bid

22.2 The original and copy of bid, must be received by the Purchaser at the address specified in Clause 21.2 by **1100 hours, on 15th May, 2019.**

22.3 The Purchaser through the CPC, LUMHS, at its discretion, extend the deadline for the submission of bids by amending the bidding documents in accordance with Clause 9, in which case all rights and obligations of the Purchaser and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

23. Late Bid

23.1 The bid received by the Purchaser after the deadline for submission of bid prescribed by the Purchaser, pursuant to Clause 22, will be rejected and returned unopened to the bidder.

24. Modification and Withdrawal of Bid

24.1 The bidder may modify or withdraw its bid after the bid's submission, provided that written notice of the modification or withdrawal is received by the Purchaser prior to the deadline prescribed for submission of bid.

24.2 The bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of Clause 21. A withdrawal notice may also be sent by telex or fax but must be followed by a signed confirmation copy, post marked not later than the deadline for submission of bid.

24.3 The bid may not be modified subsequent to the deadline for submission of bid.

24.4 The bid may not be withdrawn in the interval between the deadline for submission of bid and the expiration of the period of bid validity specified by the bidder on the Bid Form. Withdrawal of a bid during this interval may result in the bidder's forfeiture of its bid security, pursuant to Clause 18.

OPENING AND EVALUATION OF BID

25. Opening of Bid

- 25.1 The bid shall be opened by the Purchaser in the presence of the bidder's representatives who choose to attend at the time and date specified in Clause 22.1, at the office of the Purchaser, given in Clause 21.2 (a). The bidder's representatives who are present shall sign a register evidencing their attendance.
- 25.2 The bidder's name, bid price, modifications, bid withdrawal, and the presence or absence of the requisite bid security, and such other details as the Purchaser, at its discretion, may consider appropriate will be announced and recorded at the opening.

26. Clarification of Bid

- 26.1 To assist in the examination, evaluation and comparison of bid, the Purchaser may, at its discretion, ask the bidder for a clarification of its bid. All responses to requests for clarification shall be in writing, and no change in the price or substance of the bid shall be sought, offered or permitted except as required to confirm the corrections of arithmetical errors discovered in the evaluation of bid.

27. Determination of Responsiveness of Bid

- 27.1 Prior to the detailed evaluation of the bid, pursuant to Clause 29, the Purchaser will examine and determine the substantial responsiveness of the bid to the requirements of the bidding documents. A substantially responsive bid is one which:

- (a) meets the eligibility criteria specified in Clauses 2 and 3;
- (b) has been properly signed on the Bid Form;
- (c) is accompanied by the required Securities and these Securities are valid and in good order;
- (d) meets the major technical criteria specified in the schedule;
- (e) meets the delivery period set out in Schedule A Special Stipulations to Bid;
- (f) meets the rate and limit of liquidated damages as specified in Schedule A Special Stipulations to Bid;
- (g) offers fixed price quotations i.e. the bid do not offer an escapable price quotation;
- (h) is otherwise complete and generally in order;
- (j) conforms to all the terms, conditions and Specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one:
 - (i) which affects in any substantial way the scope, quality or performance of the Goods; or
 - (ii) which limits in any substantial way, inconsistent with the bidding documents, the Purchaser's rights or the bidder's obligations under the Contract.

- 27.2 The Purchaser's determination of a bidder's responsiveness shall be based on the contents of the bid itself without recourse to extrinsic evidence.

- 27.3 The bid determined as not substantially responsive will be rejected by the Purchaser and may not subsequently be made responsive by the bidder by correction or withdrawal of the nonconforming deviation or reservation.

- 27.4 The Purchaser may waive any minor informality or non-conformity or irregularity in the bid.

Correction of Arithmetical Errors: Bid determined to be substantially responsive will be checked by the Purchaser for any arithmetic errors. Errors will be rectified by the Purchaser as follows:

- (a) for the total bid price entered in paragraph of the Bid Form, if there is a discrepancy between the amounts in Figures and in words, the amount which tallies with the total Bid Price, shown in the Price Schedule, will govern unless the Bid Contains a specific statement confirming the total Bid Price.
- (b) where there is a discrepancy between the unit rate and the total price resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern and the total price shall be corrected, unless in the opinion of the Purchaser, there is an obviously gross misplacement of the decimal point in the unit rate, in which case the total price as quoted will govern and the unit rate will be corrected, and
- (c) where there is a discrepancy in the total price quoted in the Price Schedule vis-à-vis addition of each item, the total of the itemized prices will govern.

- 27.5 The amount stated in the Bid Form will be adjusted by the Purchaser in accordance with the above procedure for the correction of errors, and shall be considered as binding upon the Bidder. If the Bidder does not accept the correction of the errors, his Bid will be rejected and the Bid Security will be forfeited in accordance with Clause 18.6. Corrected Total Bid Price: The price as determined after the application of arithmetic corrections shall be termed as Corrected Total Bid Price.

28. Evaluation and Comparison of Bids

The Purchaser will evaluate and compare the bids previously determined to be substantially responsive, pursuant to Clause 27, as stated hereinafter.

28.1 Basis of Evaluation and Comparison of Bid

The bids will be evaluated in two steps. The first step would ensure that technical requirements are met by the bidders as per the technical evaluation criteria. In the second step financial proposals of only those firms which meet the technical requirements will be evaluated.

The companies will also be evaluated to assess their strength in terms of financial capacity, engineering/technical team, quality standard compliance, International standards compliance, status of the company, after sale services, response time and local vending capability. Evaluation will be done both for the company and the product.

28.2 Technical Evaluation

It will be examined in detail whether the Goods offered by the bidder comply with the Specifications of the bidding documents. To facilitate this, the Goods specification will be reviewed. Technical features/criteria of the Goods detailed in the Specifications will be compared with the bidder's Goods Data submitted with the bid. Other technical information submitted with the bid will also be reviewed. It will be examined whether the bidder has the capability to impart training properly.

28.3 Commercial Evaluation

It will be examined in detail whether the bid comply with the specified Conditions of Contract of the bidding documents. It is expected that no major deviation/stipulation shall be taken by the bidder.

28.4 Evaluated Bid Prices

The Purchaser's evaluation of a bid will take into account in addition to the Bid Price, the following factors (Adjustments) in the manner and to the extent stated hereinafter. Adjustment will be based on corrected Bid Prices. The price so determined after making such adjustments will be termed as Evaluated Bid Price. Correction of arithmetical errors as stated in Clause 27.5. The cost of making good any deficiency resulting from any acceptable, quantifiable variations and deviations from the Schedules, Conditions of Contract and Specifications, shall be added to the corrected Bid Price for comparison purposes only. For bid offering delivery period of the Service earlier than the period specified in the Schedule A Special Stipulations to Bid, no credit will be given. Terms of Payment: The bidder shall state their bid price for the payment terms outlined in the Conditions of Contract. The bid will be evaluated on the basis of this base price. The bidder may state alternate payment terms and indicate the reduction in bid price that wish to offer for such alternative payment terms. The Purchaser may consider the alternative payment terms offered by the bidder.

28.5 Parameters of Technical Evaluation

The bids will be evaluated according to the following technical criteria.

**TECHNICAL EVALUATION
PARAMETERS****TOTAL
MARKS****QUESTIONNAIRE****Company profile**

The companies will be shortlisted on the basis of Proposals submitted against this particular tender. For their company profile, financial strength and general standing in the market, they would be judged on merit. Proposal evaluation will be read with the details provided by the bidding company. The Technical evaluation will be solution specific and not only the generic capability of the bidder, for across the board uniformity and equal opportunity for this procurement. The weight age for each parameter may be fixed by the Purchaser as per requirement.

1. Technical Proposal (Qualification 700/1000)	1000	Disqualification in any two parts will lead to overall disqualification.	
a. Company Profile and Team (Qualification 70/100)	200	Proposed Organizational Structure	Pass/Fail Criterion for short listing:
Company Rating			
i. Roles	25		Have all roles of development team been shown?
ii. Resumes	25		Have adequate number of resources been allocated for each role? Criteria – at least 75%
iii. Skill Matrix	25		Do the resources fulfill/possess requisite experience and skill set?
iv. Education/certification	25		Is the training relevant?
v. Experience	100		Details of each individual with respect to role, skills and team experience.

b. Conformance to the Specification (Qualification 200/250)	450	Quoted items/solution must fulfill the required specifications.
Technical LOT specifications	400	Complete Specifications as per schedule-B.
Implementation/Network/System design/installation plan	50	Detailed design of the proposed solution / installation plan.
c. Training plan Qualification(70 /100)	100	Training plan to be provided for all process of Installing, Configuring and put into operation of all devices
Training Plan	60	Installing, Configuring , put into operation and integration of all devices
Team	40	Certified Trainers Team
d. Domain Experience/ Services (Qualification 70/100)	100	Provision of similar nature of work in public and private sector.
i. Scope of Provision/ Installation Base (Qualification 35/50)	50	10 Private Organization and 5 Public Organization then 50 marks 8 Private Organization and 4 Public Organization then 40 marks 6 Private Organization and 3 Public Organization then 30 marks 4 Private Organization and 2 Public Organization then 20 marks 2 Private Organization and 1 Public Organization then 10 marks Failing in provision of hardware in anyone organization type will be awarded 0 marks.
ii. Response time after sales (Qualification 35/50)	50	With in the City Less then 2 hours response for support, then 50 marks, Less then 5 hours response for support, then 40 marks, Less then 10 hours response for support, then 30 marks, More then 10 hours response for support, then 10 marks, Outside the City (with in the area of 200kms) Less then 10 hours response for support, then 50 marks, Less then 15 hours response for support, then 40 marks, Less then 20 hours response for support, then 30 marks, More then 20 hours response for support, then 10 marks
e. Standards (Qualification 35/50)	50	The equipment manufacturer should be certified. If only ISO or IEEE certified then 40 marks. If both then 50 marks.
f. Backup Inventory (Qualification 21/30)	30	If more than 50% items are available in the stocks, then 30 marks, if more than 25% items are available in the stocks, then 20 marks, if less than 10% items are available in the stocks, then 10 marks.
g. Manufacturing Source (Qualification 49/70)	70	Incase of relationship with principal manufacturer, identify the relationship and numbering will be done accordingly. Incase of Original Equipment Manufacturer (OEM), after evaluation, scores will be awarded accordingly.

29. Contacting the Purchaser

29.1 Any effort by a bidder to influence the Purchaser in the Purchaser's decisions in respect of bid evaluation, or Contract award will result in the rejection of the bidder's bid.

30. Purchaser's Right to Accept the Bid or Reject the Bid

30.1 The Purchaser reserves the right to accept or reject any bid at his sole discretion and to annul the bidding process at any time prior to award of Contract, without thereby incurring any liability to the bidder or any obligation to inform the bidder of the grounds for the Purchaser's action.

AWARD OF CONTRACT

31. Post-qualification and Award Criteria

- 31.1 The Purchaser will determine to its satisfaction whether the bidder has offered Goods at reasonable prices consistent with the current prevailing market prices and is qualified to satisfactorily perform the Contract.
- 31.2 The determination will take into account the bidder's financial, technical and production capabilities. It will be based upon an examination of the documentary evidence of the bidder's qualifications submitted by the bidder, pursuant to Clause 16, as well as such other information as the Purchaser deems necessary and appropriate.
- 31.3 An affirmative determination will be prerequisite for award of the Contract to the bidder. A negative determination will result in rejection of the bidder's Bid.
- 31.4 Subject to Clause 30, the Purchaser will award the Contract to the bidder if its bid has been determined to be substantially responsive to the bidding documents and consistent with the current prevailing market prices as determined by the Purchaser, provided further that the bidder is determined to be qualified to satisfactorily perform the Contract.

32. Purchaser's Right to Vary Quantities at Time of Award

- 32.1 The Purchaser reserves the right at the time of award of Contract to increase or decrease the quantity of Service specified in the Specifications, without any change in unit prices or other terms and conditions.

33. Notification of Contract Award

- 33.1 Prior to the expiration of the period of bid validity, the Purchaser will notify the bidder in writing by registered letter that its bid has been accepted. This letter is termed as Letter of Acceptance.
- 33.2 The notification of award will constitute the formation of a contract, until the Contract has been affected pursuant to Clause 35

34. Signing of Contract

- 34.1 After the acceptance of performance security by the Purchaser, the Purchaser will send to the successful bidder the Contract Form provided in the bidding documents, incorporating all agreements between the parties.
- 34.2 Within seven (7) days of the receipt of such Contract Form, the bidder shall sign and date the Contract and return it to the Purchaser.

35. Performance Security

- 35.1 Within seven (7) days of the receipt of the Letter of Acceptance from the Purchaser, the bidder shall furnish the performance security, in accordance with the Conditions of Contract, in the performance security Form provided in the bidding documents or another form acceptable to the Purchaser alongwith agreement the successful bidder give the 0.35 stamp duty of total purchase order amount.

ADDITIONAL INSTRUCTIONS

36. Instructions to Assist the Bidder

36.1 Bid shall be prepared and submitted in accordance with the instructions set forth herein. These instructions to Bidders are provided to assist in preparing their Bid and shall not constitute part of the Contract Documents.

37. Income Tax & General Sales Tax

37.1 The bidder may make inquiries on income tax to the concerned authorities of Income Tax and General Sales Tax Department, Government of Pakistan.

BID FORM

To:

Chairman, Central Purchase Committee
Liaquat University of Medical and Health Sciences
Jamshoro Sindh Pakistan

Gentlemen:

Having examined the bidding documents, the receipt of which is hereby duly acknowledged, for the above Contract, we, the undersigned, offer to supply, deliver test and impart training in conformity with the said bidding documents for the Total Bid Price.

Pak Rupees (in figures _____ in words _____)

or such other sums as may be ascertained in accordance with the Price Schedule attached hereto and made part of this Bid.

We undertake, if our Bid is accepted, to complete the Works in accordance with the Contract Execution Schedule provided in the Schedule A Special Stipulations to Bid.

If our Bid is accepted, we will provide the performance security in the sum equivalent to 5 per cent of the Contract Price, for the due performance of the Contract.

We agree to abide by this Bid for the period of ninety (90) days from the date fixed for bid opening pursuant to Clause 25 of the Instructions to Bidders, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof in your Notification of Contract Award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest-priced or any Bid that you may receive.

Dated this _____ day of _____ 2019.

WITNESS

Signature _____
Name _____
Title _____
Address _____

BIDDER

Signature _____
Name _____
Title _____
Address _____

SCHEDULE –A: SPECIAL STIPULATIONS

For ease of reference, certain information and Special Stipulations applicable to the Contract are set forth herein.

1.	Amount of Performance Security	Clause of Conditions of Contract 7.1	The selected firm will have to deposit 5% performance security in the form of pay order or demand draft or bank guarantee at the time of award of contract. This amount will be returned to the firm up to six months of User Acceptance for the Service.
2.	Delivery of Goods and Services		
	<ul style="list-style-type: none"> ▪ Address at which supply/Service of store to be delivered/executed. ▪ Contract Execution Schedule ▪ Start operation of Service after installation and testing ▪ Training of service 	<p style="text-align: center;">10.1</p> <p style="text-align: center;">10.2</p> <p style="text-align: center;">10.2.1</p> <p style="text-align: center;">10.2.1</p>	<p>The delivery of the items will be taken by the office of the main store/Department of IT LUMHS Jamshoro as per purchase order (with necessary stock entries) subject to the approval of central purchase committee.</p> <p>Within three (03) months from the commencement date of Contract.</p> <p>Within two (2) weeks after the date of operation, installation and testing of Service or part thereof.</p>
3.	Time within which payment shall be made after delivery of certificate of payment to Purchaser	16.6	As per Government Policy
	<ul style="list-style-type: none"> a. Liquidated damages for delayed delivery of Service part thereof. b. Limit of Liquidated Damages 		<p>1% of the Contract Price of the delayed or Service per day or part thereof.</p> <p>Not to exceed in the aggregate ten percent (10%) of Contract Price stated in the Notice of Contract Award/Letter of Acceptance by the Purchaser.</p>

SCHEDULE - B: PRICE SCHEDULE

Preamble

1. The Goods and Service will be delivered at the address provided in Schedule A. The total Bid Price shall include all charges up to the delivery point and other services to be provided under the Contract.
2. Where no prices are entered against any item, the price of that item shall be deemed to have been distributed among the rates and prices of other items, and no separate payment shall be made for that item(s)/ Services.
3. Price Schedule should be provided according to the complete solution of Computer Hardware Equipment as described in Technical Specifications of this document. Each cost should be identified as installation (one time) or monthly/quarterly/yearly (recurring) for any other equipment rental or any support of operation services thereof.

LOT # 01 NETWORK EQUIPMENT/ACCESSORIES

A. AAA Solution

Line Number	Description	Qty
A-1.1	USER AUTHENTICATION AND MANAGEMENT	The solution shall support user identity based on IP Address, MAC Address, hostname, as well as user binding based on IP and MAC.
		The solution shall support user account import via CSV file, and support synchronize users with LDAP, database and H3C CAMS Server.
		The solution shall support authentication method such as password based, SMS, Webchat, QR code, Facebook, LDAP, RADIUS, Pop3, CAS, H3C CAMS authentication.
		The solution shall support single sign-on (SSO) authentication base on Active Directory, Radius, POP3, Proxy, Web Server, HTTP API, and Database Server.
A-1.2	PROXY	The solution shall support to deploy as an explicit proxy server: HTTP transparent, Socks4/Socks5 proxy, PAC Script; support ICAP protocol to integrate with Data Leak Protection Server (DLP); as well as cascading proxy servers.
A-1.3	ACCESS CONTROL	The solution shall support audit function which use to record user internet behaviors such as Application/URL access, online duration, traffic statistics, Source/Destination IP Address, and others.
		The solution shall consists minimum 2900 application signature in both local/cloud database, must include categories such as P2P, Download Tools, Streaming Media, Social Media, Games, Mobile Application, and others.
		The solution shall support access management based on services and port number, such as: http(80), https(443), telnet(23), ssh(22), ftp(21), SMTP(25), POP3(110), and others.
		The solution shall dynamically categorizes millions URLs into the predefine categories, must include sub categories such as pornographic, gambling, games, illegal drugs, counteraction, social media, education, malware, and others in URL database.
		The solution shall support URL filtering based on URL Categories and apply based on username, IP Address, location, endpoint device, and schedule.
		The solution shall prompt out notification and warning page to users. Such as: Access Denied or restricted, Flow Quota Used Up, User Locked, Connection Sharing Detected, and others.
		The solution shall support to custom notification and warning page as IT administrator requirements.
		The solution shall support to control and monitor HTTP and FTP upload/download activity based on file type categories: Movie, Music, Image, Text, Compressed File, Application Program, Microsoft Office, and Engineering.
		The solution shall support quota control in bandwidth/flow/time/session/endpoints by daily/monthly, based on Application/URL, username, Source/Destination IP Address, and schedule.
		01

		<p>The solution shall support anti-proxy function, able to identification and control proxy tool application. Such as: FreeGate, Ultrasurf, Psiphon, TOR, FreeVPN, Green VPN, Opera Turbo, TunaProxy, Waysonline, Zenmate, AdNet, VPN123, secure vpn.</p>	
		<p>The solution shall support Intelligent P2P Identification, identifies popular P2P application protocols with deep packet inspection (DPI).</p>	
		<p>The solution shall support to customize on self-defined application/URL which is not listed in local/cloud database.</p>	
A-1.4	BANDWIDTH MANAGEMENT	<p>The solution shall support bandwidth management feature which able to guarantee/limit the outbound/inbound bandwidth, based on single user, Application/URL, file types, source/Destination IP, and schedule.</p>	
		<p>The solution shall support minimum 10 Child Channels based on a Parent Channel Bandwidth Management Policy.</p>	
		<p>The solution shall support accurately bandwidth management on P2P behaviors. Support application at least Xunlei P2P, eMule, Ares, BitTorrent, FlashGet, and others.</p>	
		<p>The solution shall support to identify domestics (Pakistan) and oversea traffic.</p>	
		<p>The solution shall support Virtualizes physical link into multiples virtual links and each link can be applied with independent traffic shaping policy.</p>	
A-1.5	REPORT CENTER	<p>The solution shall come with Internal/External Report Center with no additional license.</p>	
		<p>The solution shall support various kinds of reports, including scheduled statistics, behaviors trend, real-time utilization, visibility of bandwidth statistics reports. Able to create customized reports of traffic statistics, queries, ranking, times and behavior of users and user groups.</p>	
		<p>The equipment shall support Real-time monitoring of online user information, traffic ranking and connection ranking, as well as real-time usage visibility of bandwidth channels/ CPU/hard disk usage.</p>	
		<p>The solution shall support real-time monitoring on user Web-Access Connection Quality which state the overall network quality and user who is experiencing poor quality network access.</p>	
		<p>The solution shall support to generate Web-Access Connection Quality Report used for clear evaluation of the overall network quality; Users who has poor internet access quality will be listed down.</p>	
		<p>The solution shall support to record a wide variety of audit information including: URL, Webpage Title, webpage content, download/upload file transmissions via HTTP and FTP, file names and content of files downloaded, plain text thread posting and emails, chat sessions on MSN, MSN Shell, Skype, Yahoo! Messenger, Google Talk, etc.; As well as application behavior such as games, gambling, entertainment, P2P downloads, and others. tallies user traffic and access duration and audits Webpage/file/email access of extranet users on intranet servers.</p>	
		<p>The solution shall support to export user behavior logs/reports to CSV and PDF file format.</p>	

		Report Center shall support to generate report based on application traffic ranking, URL category traffic ranking, URL traffic ranking, application duration, and others based on IT administrator requirements.	
A-1.6	General Specification	The solution shall support Built-in stateful Firewall and Built-in IPsec VPN option.	
		The solution must support following deployment mode: 1. Gateway/Gateway + Proxy 2. Bridge/Bridge + Proxy 3. Bypass/ Bypass + Proxy 4. Single-arm/Single-arm + Proxy	
		The solution shall support to deploy in IPv6 environment and fully support to monitor and control IPV6 traffic.	
		The solution shall support software bypass feature, user will bypass all the policies and rule of application control, URL filtering, bandwidth management, authentication, and others.	
		Multiple equipment shall be monitor and manage in a same platform, IT administrator able to have a quick view of all online nodes policy configuration, Overall Network Status such as CPU/Hard Disk/Memory Usage.	
		A GUI-based troubleshooting tool is provided for administrators to identify issue such as policy wrong configuration.	
		The solution shall support hierarchical administrator privileges. Different function modules can be assigned to different administrators as needed, via a hierarchical management paradigm; Administration of different functions and modules can be delegated to different administrative groups.	
		The solution shall consist of local and cloud application/URL database, local database shall support auto and manual update from cloud database.	
		The solution must be in Gartner Report for category Web Secure Gateway Only.	

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.

LOT # 01 NETWORK EQUIPMENT/ACCESSORIES

B. Next Generation Firewall

Description	Service Duration (Months)	Qty
Stateful deep inspection firewall with 3Gbps or higher Throughput DDos Prevention, ARP spoofing prevention Anti-Virus Anti-Malware Anti-phishing Intrusion Prevention System Web Application Firewall SSL Decryption Data Leakage Prevention for database servers Risk assessment by on-demand and real-time scanner IPsec VPN SSL VPN User authentication and grouping Web(URL) filtering, Application control, Bandwidth management Reverse Proxy Load Balancing Central Management Real time monitoring Comprehensive Reporting	36	1

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 01 NETWORK EQUIPMENT/ACCESSORIES

C. Core Switch (CISCO OR EQUIVALENT)

Line Number	Part Number	Description	Service Duration (Months)	Qty
C-1.0	N9K-C9504-B3	Nexus 9504 Chassis Bundle with 1 Sup, 3 PS, 2 SC, 4 FM, 3 FT	-	1
C-1.0.1	CON-3SNT-N9504B3	SNTC-8X5XNBD Nexus 9504 Chassis Bundle with 1 Sup, 3	36	1
C-1.1	N9K-C9504-FM-CV	Nexus 9508 Fabric Module slot cover	-	2
C-1.2	N9K-C9500-LC-CV	Nexus 9500 Line card slot cover	-	2
C-1.3	N9K-C9500-P-CV	Nexus 9500 Power Supply slot cover	-	1
C-1.4	N9K-C9504-FM	Fabric Module for Nexus 9504 chassis	-	4
C-1.5	N9K-C9504-RMK	Nexus 9504 Rack Mount Kit	-	1
C-1.6	N9K-C9500-ACK	Nexus 9500 Accessory Kit	-	1
C-1.7	NXOS-703I7.1	Nexus 9500, 9300, 3000 Base NX-OS Software Release(latest)	-	1
C-1.8	N9K-C9504-FAN	Fan Tray for Nexus 9504 chassis, Port-side Intake	-	3
C-1.9	CAB-C19-CBN	Cabinet Jumper Power Cord, 250 VAC 16A, C20-C19 Connectors	-	3
C-1.1	N9K-SC-A	System Controller for Nexus 9500	-	2
C-1.11	N9K-SELECT-SUP-A	PID to Select Default Supervisor: N9K-SUP-A	-	1
C-1.12	N9K-SUP-A	Supervisor for Nexus 9500	-	1
C-1.13	N9K-SUP-A	Supervisor for Nexus 9500	-	1
C-1.14	N95-LIC-PAK	N9500 License PAK Expansion	-	1
C-1.15	N95-LAN1K9	LAN Enterprise License for Nexus 9500 Platform	-	1
C-1.16	N1K-VLCPU-96-ESSTL	Nexus 1000V Essential Edition Paper Delivery License Qty 96	-	1
C-1.17	N9K-SELECT-C95PAC	PID to Select Default Power Supply: N9K-PAC-3000W-B	-	3
C-1.18	N9K-PAC-3000W-B	Nexus 9500 3000W AC PS, Port-side Intake	-	3
C-1.19	N9K-X9464TX2	Nexus 9500 linecard, 48p 1/10G-T & 4p QSFP	-	1
C-1.2	N9K-X9464PX	Nexus 9500 linecard, 48p 1/10G SFP+ & 4p QSFP	-	1

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 01 NETWORK EQUIPMENT/ACCESSORIES

D. Router (CISCO OR EQUIVALENT)

Line Number	Part Number	Description	Service Duration (Months)	Qty
D-1.0	ISR4451-X/K9	Cisco ISR 4451 (4GE,3NIM,8G FLASH,4G DRAM,IPB)	-	1
D-1.0.1	CON-3SNT-ISR4451K	SNTC-8X5XNBD Cisco ISR 4451 (4GE)	36	1
D-1.1	SL-44-IPB-K9	IP Base License for Cisco ISR 4400 Series	-	1
D-1.2	SL-44-APP-K9	AppX License for Cisco ISR 4400 Series	-	1
D-1.3	PWR-4450-AC	AC Power Supply for Cisco ISR 4451	-	1
D-1.4	CAB-ACU	AC Power Cord (UK), C13, BS 1363, B-1.5m	-	1
D-1.5	MEM-4400-4G	4G DRAM (2G+2G) for Cisco ISR 4400	-	1
D-1.6	MEM-FLSH-8G	8G eUSB Flash Memory for Cisco ISR 4451	-	1
D-1.7	PWR-COVER-4450	Cover for empty 2nd Power Supply slot on Cisco ISR 4451	-	1
D-1.8	ISRWAAS-RTU-2500	ISRWAAS RTU for 1300 connections	-	1
D-1.8.0.1	CON-ECMU-IW2500	SWSS UPGRADES ISRWAAS RTU for 2500 connections	36	1
D-1.9	MEM-4400-DP-2G	2G DRAM (1 DIMM) for Cisco ISR 4400 Data Plane	-	1
D-1.1	WAAS-RTU-2500	WAAS and VWAAS Right to Use for 2500 connections	-	1
D-1.10.0.1	CON-ECMU-WS2500	SWSS UPGRADES WAAS and VWAAS Right	36	1
D-1.11	NIM-BLANK	Blank faceplate for NIM slot on Cisco ISR 4400	-	3
D-1.12	SISR4400UK9-316S	Cisco ISR 4400 Series IOS XE Universal	-	1

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 01 NETWORK EQUIPMENT/ACCESSORIES

E. Distribution Switch (CISCO OR EQUIVALENT)

Line Number	Part Number	Description	Service Duration (Months)	Qty
E-1.0	WS-C3850-12XS-S	Cisco Catalyst 3850 12 Port 10G Fiber Switch IP Base	-	3
E-1.0.1	CON-3SNT-WSC3851X	SNTC-8X5XNBD Cisco Catalyst 3850 12 Port 10G Fiber Sw	36	3
E-1.1	S3850UK9-163	UNIVERSAL	-	3
E-1.2	PWR-C1-715WAC/2	715W AC Config 1 Secondary Power Supply	-	3
E-1.3	CAB-TA-UK	United Kingdom AC Type A Power Cable	-	6
E-1.4	STACK-T1-50CM	50CM Type 1 Stacking Cable	-	3
E-1.5	CAB-SPWR-30CM	Catalyst Stack Power Cable 30 CM	-	3
E-1.6	C3850-NM-BLANK	Cisco Catalyst 3850 Network Module Blank	-	3
E-1.7	PWR-C1-350WAC	350W AC Config 1 Power Supply	-	3

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 01 NETWORK EQUIPMENT/ACCESSORIES

F. Access Switch & Accessories (CISCO OR EQUIVALENT)

Line Number	Part Number	Description	Service Duration	Qty
F-1.0	WS-C2960L-24PS-LL	Catalyst 2960L 24 port GigE with PoE, 4 x 1G SFP, LAN	-	6
F-1.0.1	CON-3SNT-WSC2964P	SN7C-8X5XNBD Catalyst 2960L 24 po	36	6
F-1.1	CAB-ACU	AC Power Cord (UK), C13, BS 1363, B-1.5m	-	6
F-2.0	WS-C2960L-48PS-LL	Catalyst 2960L 48 port GigE with PoE, 4 x 1G SFP, LAN	-	4
F-2.0.1	CON-SNT-WSC296PL	SN7C-8X5XNBD Catalyst 2960L 48 po	36	4
F-2.1	CAB-ACU	AC Power Cord (UK), C13, BS 1363, B-1.5m	-	4
F-3.0.1	GLC-SX-MMD=	1000BASE-SX SFP transceiver module, MMF, 850nm, DOM	-	36
F-4.0	GLC-LH-SMD=	1000BASE-LX SFP transceiver module, SMF, 1310nmDOM	-	12
F-5.0	GLC-TE- =	1000BASE-T SFP transceiver module, , 850nm, DOM	-	6
F-6.0	SFP+ 10G-SR-S=	10GBASE-SR SFP Module, Enterprise-Class	-	10
F-7.0	-	LC-LC 3 Meter Fiber Patch Cord for GLC-SX-MMD	-	10
F.8.0	-	SC-LC 3 Meter Fiber Patch Cord for GLC-SX-MMD	-	30
F-9.0	-	LC-LC 3 Meter Fiber Patch Cord for GLC-LX-SMD	-	10
F-10.0	-	LC-LC 3 Meter Fiber Patch Cord for SFP-10G-SR-S	-	10
F-11.0	-	LC-LC 10 Meter Fiber Patch Cord for SFP-10G-SR-S	-	10

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 02 STORAGE

SAN 48 TB with min 28TB useable or Higher (HP, DELL, IBM OR EQUIVALENT)

S.No.	Specification	Qty
	Storage Array	Unified Storage
	Controllers/ Engines	The proposed system must have dual controllers with Active/Active feature.
	Controller/Disk Enclosure Interface	12Gbps SAS Backend
	Controller Cache	At-least 48GB Cache per array
	Expandable Read & Write SSD Cache	Support SSD based READ/WRITE cache (Optional)
	Capacity Breakup	Hybrid/ Mixed Capacity of 28TB Usable on SSD Using RAID5, SAS 10K RPM Using RAID5 and RAID6 Using 4TB NL-SAS --> SSD Tier Total Usable of 1.43 TB , SAS 2.5 10 SAS total Usable of 12.47 TB and NL-SAS 4TB 7.2K total Usable of 14.33 TB
	Disk Storage Architecture and Host Interface	At least 4 x 16Gbps FC ports required, 4x 10Gb ISCSI, 4 x 10Gbps RJ-45 or SFP+ Ports NAS required Support for RAID 0, 1, 5, 6 and 10
	Encryption Method	Storage System should be capable of hardware level encryption without any performance impact.
	Point-in-Time Copy	Should have Comprehensive point-in-time snap copy software
	Replication Support	Should support Sync and A-sync Replication feature with Continuous Data Protection Technology. Replication Should also support Data De-Duplication and Compression for efficient use of Bandwidth
	Protocols supported	Proposed storage should support well-known protocols like FC, ISCSI, FCOE, CIFS & NFS
	Automated Storage Tiering	Provides ability to dynamically move data between different types of drives or storage tiers to ensure optimization. Data movement between storage tiers must be automated, transparent to applications and based on advanced analysis of historical data access patterns. Data movement between storage tiers must be performed at the sub logical unit (LUN) level to ensure optimization.
	Compression	Storage should support compression on Flash SSD drives / All flash drives pool
	Thin Provisioning	Ability to thin or over provision space allocated to hosts, Should Support VMware VVols with concurrent support, iSCSI, and Fibre Channel protocols

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	Storage Monitoring Software & Storage Management Software	The storage management software must have discovery, monitoring, asset and capacity reporting. The storage management software must support interception of Storage-related indications (converted SNMP traps). The storage management software must support the ability to produce detailed reports and graphs on storage current and historical utilization trends. The storage management software should provide integration with VMware and Hyper-V management software.	
	Multipathing Software	Should support native multipath device drivers / software for the host operating systems (AIX, Windows, Linux, VMware etc.)	
	SAN Fabric Specifications	SAN switches with at least 12 ports x 8Gbps or higher	02
		Transceiver 8GFC SFP+ SW	04
	Support & Warranty	Three (3) years Onsite support 24/7 by Principal for the period of three years.	

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.

All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 03 DESKTOP & LAPTOPS

A. Branded Desktop Computers (Ci7) (HP, DELL, IBM OR EQUIVALENT)

S.No.	Specification	Qty	
1.	Processor	Branded Intel Core i7-8700 or higher	220
2.	Chipset	Intel B360 Chipset, TPM Enabled (Embedding of LUMHS in BIOS)	
3.	Memory	08/16GB (2 x 8) DDR4 Memory	
4.	Hard Disk	1TB 7200RPM SATA or higher	
5.	Optical Drive	DVD+/RW	
6.	Display	18.5 inch LED Monitor or higher	
7.	USB Ports	USB Ports 4 USB 2.0/3.0 Ports Front/Rear or Higher	
8.	Output	HDMI/VGA, Audio	
9.	Other	Gigabit Ethernet LAN, Wifi, Bluetooth, Optical Mouse & Keyboard	

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 03 DESKTOP & LAPTOPS

B. Branded Desktop High-End Computers (Ci7) (HP, DELL, IBM OR EQUIVALENT)

S.No.	Specification		Qty
1.	Processor	Branded Intel Core i7-8700 or higher	30
2.	Graphics Card	2 GB or Higher	
3.	Chipset	Intel Q370 Chipset, TPM Enabled (Embedding of LUMHS in BIOS)	
4.	Memory	16/32GB (2 x 16) DDR4 Memory Support upto 64GB RAM	
5.	Hard Disk	2TB 7200RPM SATA or higher	
6.	Optical Drive	DVD+/RW	
7.	Display	24 inch LED Monitor or higher with USB Type C Power Delivery	
8.	USB Ports	USB Ports 4 USB 2.0/3.0 Ports Front/Rear or Higher	
9.	Output	HDMI/VGA, Audio Display Ports and USB Type C Port	
10.	Other	Gigabit Ethernet LAN, Wifi, Bluetooth, Optical Mouse & Keyboard	

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 03 DESKTOP & LAPTOPS

C. Branded Laptops (Ci7) (HP, DELL, LENOVO, SONY OR EQUIVALENT)

S.No.	Specification		Qty
1.	Processor	Branded: Intel Core i7 8 th generation or higher TPM Enabled (Business Machine)	15
2.	Display	13.3" or smaller	
3.	Memory	8/16GB DDR4 2400Mhz	
4.	Hard Disk	512SSD/1TB SATA/Hybrid or higher	
5.	Output	HDMI Port	
6.	Communication	Dual Band Wifi, LAN	
7.	WebCam	720P HD or higher	
8.	USB Ports	1 x USB 2.0 or higher AND 1 x USB 3.0 or Higher	
9.	Other	Bluetooth Mouse	
10.	Carrying Case	Carrying case of Same brand	

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 03 DESKTOP & LAPTOPS

D. Processor for Blade Server

S.No.	Specification		Qty
1.	Processor	Intel Xeon E5-2630L v3 1.8GH2,20M Cache,8.00cT/s QPI,Turbo,HT,SC/16T (55W) Max Mem 1 866MHz x4	04
2.	Heatsink	104mm CPU Processor Heatsink 5JNGY	04

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.

All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 04 SMART CLASS SOLUTION

A. Presenters (LOGITECH, KENSINGTON OR EQUIVALENT)

Description	Qty
Laser Class: Class 2 Laser or Higher Max Output: Less than 1mW Wave Length: 640~660nm (red light) or Higher Battery type: AAA batteries Wireless operating distance: 10m or Higher Wireless technology: 2.4 GHz wireless technology Supported OS: Windows 7, Windows 8, Windows 10, Mac OS X Interface: USB 8GB Micro SD card stores presentations, fits inside wireless receiver Green laser pointer is 10x brighter Extended 150-foot or higher wireless range to roam the room	12

NOTE:

1. 1 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 04 SMART CLASS SOLUTION

B. Smart Boards (SMART TECHNOLOGIES, MIMIO, PROMETHEAN OR EQUIVALENT)

Description	Qty
<ul style="list-style-type: none">▪ Interactive Whiteboard System & Tutor Software for Android Devices:▪ 86" Interactive Board▪ iQ technology (devices, lesson content and software together)▪ Touch of a finger▪ The embedded computer for one-touch access to Learning Suite applications for lessons and activities. Digital whiteboard, web browser and wireless screen sharing (iOS, Android and Microsoft devices)▪ Tutor Software to connect iOS, Android and Microsoft devices▪ Real-time student assessment▪ Class Surveys▪ Student Register▪ Lesson Objectives Launch Websites▪ Student Rewards▪ File Transfer▪ Lock/Blank Screen	02

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 04 SMART CLASS SOLUTION

C. Portable Sound System for Labs (BOSE, SONY, YAMAHA OR EQUIVALENT)

Description	Qty
<ul style="list-style-type: none">▪ 12" Portable 1200W Speaker PA System with Wireless Mic, Bluetooth, USB, SD, Rechargeable battery▪ Bluetooth Function / Recording Function /Built in USB & SD reader slots For direct playback / FM Radio▪ VHF wireless handheld microphone with FCC certified (Between 210-265Mhz Frequency)/ Dynamic Wireless Mic w/ 3 Position Power Switch & LED / Operation Range: 120ft (35 Meters)	07

NOTE:

1. 1 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 04 SMART CLASS SOLUTION

D. Smart Podium (SMART TECHNOLOGIES OR EQUIVALENT)

Description	Qty
Smart Podium with Podium Stand Standard Size Full HD 1920 x 1080 Resolution Built in Wifi 802.11 a/b/g/n Pen = Battery-free, tethered pad with LED indicator HDMI/DVI/VGA Ports Input / Output Interface= USB 3.0 for PC interface USB for Keyboard, Mouse and Memory Compatible with third party projector Required cables and mounting accessories	02

NOTE:

1. 1 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 05 SOFTWARE**A. Antivirus with Anti-Malware**

Description	Qty
Server-Client Architecture Must provide Full disk and folder level AES 256-bit encryption, Mobile Security, Anti-malware, Vulnerability Scanning, Automated Patch Management, Network Admission Control, Inventories, Application Control, Web Control, Dynamic whitelisting, Network Attack Blocker Subscription for 3 Years	1500 Users

LOT # 05 SOFTWARE**B. VM VSphere**

Description	Qty
VMware VSphere Standard 6.5 or Higher	08 Licenses

LOT # 05 SOFTWARE**C. Business Intelligence Reporting Tool**

Description	Qty
Business Intelligence Reporting Tool with Perpetual Licenses	10

LOT # 06 DISPLAY

A. Smart LED TV 50 inch (SAMSUNG, SONY OR EQUIVALENT)

Description	Qty
<p>Display Screen Size 50" or Higher Ultra Slim, 4K Ultra HD LED, 3840x2160 resolution or higher, 16:9 Aspect ratio Computer inputs on all HDMI up to 4K Ultra HD 3840x2160 Video inputs on all HDMI @ 24, 25, 30, 50, 60Hz and up to 4K Ultra HD 3840x2160p or higher</p> <p>Sound Output RMS: 16W, Virtual Sound, Auto Leveler</p> <p>Connectivity 3 x HDMI connections, 3 x USBs Connection, Built-in Wifi, Built-in 1T1R Single band, Ethernet-LAN RJ-45, Digital audio out (coaxial), Audio Out (3.5mm), 1 x PC-In VGA, 1 x Number of AV connections</p>	05

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 06 DISPLAY

B. Multimedia Projector (HITACHI, PANASONIC, SONY OR EQUIVALENT)

Description	Qty
Resolution WUGA (1920x1200) Brightness (Typical) 3500 Lumens or Higher Display System LED Computer Compatibility Mini D-sub 15-pin (female) Audio input HDMI input (HDCP Support) LAN Wireless USB Video Out Audio Out Projection Method Front, rear, ceiling Other Mounting Kit, HDMI 15 Meters Cable, Power Cord 10 Meters, Carrying Case	10

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 07 MISCELLANEOUS

A. Rack Mounted UPS (1.5KVA-True Online) (APC, LIEBERT OR EQUIVALENT)

Description	Qty
<p>Power 1.5kVA/1.35kW True Online</p> <p>Runtime Up to 20 minutes at full load (70% Load)</p> <p>Input Voltage 230Vac (115-280Vac), 50/60Hz</p> <p>Output Connection 6xIEC320 C13</p> <p>Output Voltage 200/208/220/230/240Vac+/- 3%, 50/60Hz auto-sensing</p>	15

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 07 MISCELLANEOUS**B. Laser Printer (HP OR EQUIVALENT)**

Description	Qty
Laser Printer With Network Support Print Speed Black Print Speed Up to 40ppm Standard Connectivity Hi-speed USB 2.0 port Host USB 2.0 Ethernet 10/100/1000T network Two Sided Printing Automatic Display 2-Line LCD, Paper Handling Tray 1: Up to 100 sheets Tray 2: Up to 250 sheets	15

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 07 MISCELLANEOUS**C. Branded 42U Rack & PDU with Accessories (HP, DELL OR EQUIVALENT)**

Description	Qty
42U Rack 600mm x 1070mm Advance Shock Rack with 7.3 KVA C13 PDU x 02 19-inch TFT (48.3 cm) console with keyboard and touchpad With complete Kit and accessories	02

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

LOT # 07 MISCELLANEOUS

D. 16-Port IP-KVM Switch (HP, DELL OR EQUIVALENT)

Description	Qty
Device Type KVM switch - 16 ports - cascadable Enclosure Type Rack-mountable 1U Ports 16 x KVM port(s) KVM Local Users Qty 1 local user KVM IP Users Qty 1 IP user Server Connection Via Twisted Pair CAT5 Local User Connection Via Twisted Pair CAT5 Keyboard / Mouse Interface PS/2 and USB Virtual Media support Status Indicators Port status, power, LAN Power Device Internal power supply Voltage Required AC 120/230 V Expansion / Connectivity Interfaces <ul style="list-style-type: none">▪ 16 x KVM - RJ-45▪ 1 x serial (RS-232) - DB-9▪ 1 x VGA - HD-15▪ 1 x mouse (PS/2)▪ 1 x keyboard (PS/2)▪ 5 x USB - Type A USB VGA KVM Adapters x 16	02

NOTE:

1. 3 Years Parts and Labor warranty for all components on site.
2. Maximum of 48 hours down time for all components including replacement of the whole unit.
3. The bidders should clearly mention Terms and Conditions of service agreements for the supplied hardware equipment after the expiry of initial warranty period.
4. In case of International Warranties, the local authorized dealers should mention their service and warranty setup, details of qualified engineers, etc.
5. All equipment must be purchased from legal channel and verifiable Distributor. The quoting companies must be certified.

Signature of Bidder _____

Note:

Currencies should be used in accordance with Clause 14 of the Instructions to bidders. In case of locally produced Service, the price shall include all customs duties and sales and other taxes already paid or payable on the components and raw materials used in the manufacture or assembly of the item.

In case of Contract of imported Service offered Ex-Warehouse/Off-the-Shelf from within the Purchaser's country, the cost of import duties and sales and other taxes already paid shall be shown separately.

BID SECURITY FORM

WHEREAS _____ (hereinafter called "**the Bidder**") has submitted its bid dated _____ for supply of _____ (hereinafter called "**the Bid**").

KNOW ALL MEN by these presents that We _____ (Name of Bank) of _____ (Name of Country) having our registered office at _____ (address of Bank) hereinafter called "the Bank" are bound into the Chairman, Central Purchase Committee, Liaquat University of Medical and Health Sciences Jamshoro, Sindh, Pakistan (hereinafter called "the Purchaser") in the sum of _____, for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns, by these presents.

Sealed with the Common Seal of the Bank this _____ day of _____, 2019

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder does not accept the corrections of his Total Bid Price; or
3. If the Bidder, having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity:
 - (a) Fails or refuses to furnish the performance security, in accordance with the Instructions to Bidders; or
 - (b) Fails or refuses to execute the Contract Form, when requested. or

We undertake to pay to the Purchaser up to the above amount, according to, and upon receipt of, its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both or all the three above stated conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to _____, the period of bid validity, and any demand in respect thereof should reach the Bank not later than such date.

(NAME OF BANK)

By _____
(Title)
Authorized Representative

PERFORMANCE SECURITY FORM

To:

Chairman,
Central Purchase Committee,
Liaquat University of Medical and Health Sciences
Jamshoro
Sindh-Pakistan

WHEREAS (Name of the Contractor)

hereinafter called "the Contractor" has undertaken, in pursuance of "LUMHS Jamshoro Combine Tender", Procurement of Software and IT Equipment, dated _____(hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the Contract that the Contractor shall furnish you with a bank guarantee by a recognized bank for the sum specified therein as security for compliance with the Contractor's performance obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor a Guarantee:

THEREFORE WE hereby affirm that we are Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____(Amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the Contractor to be in default under the Contract, and without cavil or argument, any sum or sums as specified by you, within the limits of _____(Amount of Guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until _____ day of _____, 2019, or twenty-eight (28) days of the issue of the Defects Liability Expiry Certificate, whichever is later.

[NAME OF GUARANTOR]

Signature _____
Name _____
Title _____
Address _____
Seal _____

CONTRACT FORM

THIS CONTRACT made the _____ day of _____ 2019, between the Chairman, Central Purchase Committee Liaquat University of Medical & Health Sciences Jamshoro (hereafter "the Purchaser") of the one part and _____ (Name of Contractor) of _____ (City and Country of Contractor) (hereinafter "the Contractor") of the other part.

WHEREAS the Purchaser invited bids for LUMHS Combine Tender, Procurement of Computer Hardware Equipment and training thereof and has accepted a bid by the Contractor for the supply of those Goods and Services.

NOW THE CONTRACT WITNESSETH AS FOLLOWS

1. The following documents shall be deemed to form and be read and construct as part of this Contract.
 - (a) The Notification of Award;
 - (b) The Bid and Schedules listed as under;
 - Schedule A Special Stipulations
 - Schedule B Price Schedule
 - (c) The Conditions of Contract;
 - (d) The Technical Specifications

This Contract shall prevail over all other contract documents. In the event of any discrepancy or inconsistency within the Contract Documents, then the Documents shall prevail in the order listed above.

2. In consideration of the payments to be made by the Purchaser to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
3. The Purchaser hereby covenants to pay the Contractor, in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract, at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Contract to be executed in accordance with their respective laws the day and year first above written.

WITNESS

Signature _____
Name _____
Designation _____

WITNESS

Signature _____
Name _____
Designation _____

PURCHASER

Signature _____
Name _____
Designation _____
Seal _____

CONTRACTOR

Signature _____
Name _____
Designation _____
Seal _____

CONDITIONS OF CONTRACT

1. Definitions

1.1 In this Contract, the following terms shall be interpreted as indicated:

- 1.1.1 "Commencement Date of the Contract" means the date of signing of the Contract between the Purchaser and the Contractor.
- 1.1.2 "Contract" means the agreement entered into between the Purchaser and the Contractor, as recorded in the Contract Form signed by the parties, including all Schedules and Attachments thereto and all documents incorporated by reference therein.
- 1.1.3 "Contract Price" means the price payable to the Contractor under the Contract for the full and proper performance of its contractual obligations.
- 1.1.4 "Contractor" means the individual or firm whose bid has been accepted by the Purchaser and the legal successors, in title to the Contractor.
- 1.1.5 "Contract Value" means that portion of the Contract Price adjusted to give effect to such additions or deductions as are provided for in the Contract which is properly apportionable to the Goods or Services in question.
- 1.1.6 "Defects Liability Expiry Certificate" means the certificate to be issued by the Client to the Contractor in accordance with Clause 15.7.
- 1.1.7 "Defects Liability Period (Warranty Period)" means the period stated in the Schedule A Special Stipulations, following the taking over, during which the Contractor is responsible for making good defects and damage in accordance with Clause 15.
- 1.1.8 "Client" means LUMHS Jamshoro or any other person for the time being or from time to time duly appointed in writing by the Purchaser to act as Client for the purposes of the Contract.
- 1.1.9 "Client's Representative" means any representative of the Client appointed from time to time by the Client under Clause 33.
- 1.1.10 "Goods" means all of the equipment, machinery, and/or other materials which the Contractor is required to supply to the Purchaser under the Contract.
- 1.1.11 "Purchaser" means the Central Purchase Committee, LUMHS Jamshoro Sindh - Pakistan.
- 1.1.12 "Services" means services ancillary to the supply of the Goods, such as insurance, and any other incidental services, such as testing, training and other such obligations of the Contractor covered under the Contract.
- 1.1.13 "Taking-Over Certificate" means the certificate to be given by the Client to the Contractor in accordance with Clause 10.4.
- 1.1.14 "Works" means all Service to be provided and work to be done by the Contractor under the Contract.

1.2 Headings and Titles

The headings and titles in these Conditions shall not be deemed part thereof or be taken into consideration in the interpretation or construction of the Contract.

1.3 Interpretation

Words importing persons or parties shall include firms and corporations and any organization having legal capacity. Words importing the singular only also include the plural and vice versa where the context requires.

1.4 Periods

In these Conditions "day" means calendar day and week means seven (7) calendar days.

1.5 Notice, Consents and Approvals

Wherever in the Contract provision is made for the giving of notice, consent or approval by any person, such consent or approval shall not be unreasonably withheld. Unless otherwise specified, such notice, consent or approval shall be in writing and the word "notify" shall be construed accordingly.

2. Application

2.1 These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

3. Country of Origin

3.1 All Goods and Services supplied under the Contract shall have their origin in eligible member countries.

3.2 For purposes of this Clause, "origin" shall be considered to be the place where the Goods were mined, grown or produced or from which the Services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.

3.3 The origin of Goods and Services is distinct from the nationality of the Contractor.

4. Standards

4.1 The Goods/Services supplied under this Contract shall conform to the authoritative latest standard appropriate to the Goods.

5. Use of Contract Documents and Information

5.1 The Contractor shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, drawings, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Contractor in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.

5.2 The Contractor shall not, without the Purchaser's prior written consent, make use of any document or information specified in Clause 5.1 above, except for purposes of performing the Contract.

6. Patent Rights

6.1 The Contractor shall indemnify and hold the Purchaser harmless against all third party claims of infringement of patent, trademark or industrial design rights arising from use of the Service or any part thereof.

7. Performance Security

7.1 Within seven (7) days of receipt of the Letter of Acceptance from the Purchaser, the successful Bidder shall furnish to the Purchaser the performance security in the amount specified in the Schedule A Special Stipulations to Bid.

7.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Contractor's failure to complete its obligations under the Contract. The Contractor shall cause the validity period of the performance security to be extended for such period(s) as the contract performance may be extended.

7.3 The performance security shall be denominated in a currency of the Contract, or in a freely convertible currency acceptable to the Purchaser, and shall be in one of the following forms:

- (a) A bank guarantee,
 - (i) Issued by a bank acceptable to the Purchaser located in Pakistan; or
 - (ii) Issued by a foreign bank through a correspondent bank acceptable to the Purchaser located in Pakistan, and in the form provided in the bidding documents or another form acceptable to the Purchaser; or
- (b) a cashier's check or certified check.

7.4 The performance security will be returned by the Purchaser not later than twenty eight (28) days of the issue of the Defects Liability Expiry Certificate.

8. Inspection and Tests

8.1 The Purchaser or its representative shall have the right to inspect the work being carried out under this Contract and to test the Goods to confirm their conformity to the Specifications. The Special Conditions of Contract or the Specifications or both shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing of the identity of any representative retained for these purposes.

8.2 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and at the Service final destination. Where conducted on the premises of the Supplier or its subcontractor(s), all-reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.

8.3 Should any inspected or tested Service fail to conform to the specifications, the Purchaser may reject them, and the Supplier shall either replace the rejected Service or make all alterations necessary to meet the requirements

of the Specifications free of cost to the Purchaser.

8.4 The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods arrival at the site of installation shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by the Purchaser or its representatives prior to delivery of the Goods.

8.5 Nothing in this Clause 6 shall in any way release the Supplier from any Warranty or other obligations under the Contract.

9. Packing

9.1 The Contractor shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage.

10. Delivery and Documents

10.1 Delivery of the Goods shall be made by the Contractor at the address specified in Schedule A Special Stipulations.

10.2 Contract Execution Schedule

10.2.1 The delivery of the Goods at the site, it's testing, and successful training shall be completed within the periods stated in the Schedule A Special Stipulations to Bid.

10.2.2 Within the time stated in Schedule A Special Stipulations to Bid, the Contractor shall submit to the Client the detailed schedule of supply, customs clearance, testing of the Goods and training as required under the Contract.

10.2.3 The Service shall remain at the risk and under the physical custody of the Contractor until the delivery and testing of the Goods is completed.

10.2.4 The Contractor shall ensure that the Goods shall be delivered complete to enable the testing and training to proceed without interruption. If it shall appear to the Client that the Goods have been or are likely to be delayed by reason of incomplete delivery or for any other reasons, he may require the Contractor at the expense of the Contractor to dispatch the missing items of the Goods or suitable replacements thereof to the site of delivery by the fastest available means including air freight.

10.3 Documentation

Before the Goods are taken over by the Purchaser, the Contractor shall furnish the operation manuals, service manuals and other information pertaining to the performance of the Goods.

10.4 Taking-Over Certificate

10.4.1 The Service or any portion thereof shall deemed to be taken over by the Purchaser when they have been delivered to the Client and tested for their intended purposes.

10.4.2 The Contractor shall apply by notice to the Client for a Taking-Over Certificate. The Goods will be delivered and tested at the place of delivery of Goods.

10.4.3 The Client will within twenty one (21) days after receipt of Contractor's application either:

- (a) issue the Taking-Over Certificate to the Contractor with a copy to the Purchaser stating the date on which the Goods or any portion thereof were successfully tested and ready for taking over, or
- (b) reject the application giving his reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued.

10.4.4 The issue of a Taking-Over Certificate shall not operate as an admission that the Works are completed in every respect.

11. Marine Insurance of the Goods

11.1 All marine insurance if Goods imported outside Pakistan shall be arranged and paid for by the Contractor, and the cost thereof shall be included in the Contract Price.

12. Transportation

12.1 Transport of the Goods to the place of destination as specified in the Contract shall be arranged and paid for by the Contractor, and the cost thereof shall be included in the Contract Price.

13. Incidental Services

13.1 The Contractor shall provide the following services:

- (a) start-up and testing of the supplied Goods;
- (b) furnishing of a detailed Operation and Service Manuals for each appropriate unit of the supplied Goods;
- (c) training of the personnel nominated by the Client, of the supplied Goods, as specified in the Specifications.

14. Spare Parts

14.1 The Contractor warrants to the Purchaser that the Service supplied by the Contractor under the Contract are standard and of exact Computer Hardware and Networking Equipment , and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Contractor further warrants that all Service supplied under this Contract shall have no defect, arising from design, materials, or installation & configuration from any act or omission of the Contractor that may develop under normal use of the supplied Service.

15. Warranty and Defects Liability Expiry Certificate

15.1 The Contractor warrants to the Purchaser that the Goods supplied by the Contractor under the Contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Contractor further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship or from any act or omission of the Contractor, that may develop under normal use of the supplied Goods.

15.2 This warranty shall remain valid for three year or as specified in the Special Stipulations of this document, after the Goods, or any portion thereof, as the case may be, have been Taken Over, in accordance with Clause 10.4. This period is hereinafter referred as Warranty Period.

15.3 The Client shall promptly notify the Contractor in writing of any claim arising under this warranty.

15.4 Upon receipt of such notice, the Contractor shall, within a reasonable period as notified by the Client, repair or replace the defective Goods or parts thereof in Jamshoro/Hyderabad (Pakistan), without any cost to the Purchaser.

15.5 If the Contractor, having been notified, fails to remedy the defect (s) in accordance with the Contract, the Purchaser may proceed to take such remedial action as may be necessary, at the Contractor's risk and cost. The Contractor's warranty pursuant to this Clause 15 is without prejudice to any other rights or remedies which the Purchaser may have against the Contractor under the Contract.

15.6 Property in Replaced Components

Any defective component which has been replaced by the Contractor shall become the property of the Contractor as and where it lies.

15.7 Defects Liability Expiry Certificate

When the Warranty Period for whole of the Goods has expired, and the Contractor has fulfilled all his obligations under the Contract for defects in the Goods and has imparted training, the Client shall issue within four (4) weeks to the Purchaser with a copy to the Contractor a Defects Liability Expiry Certificate to that effect.

16. Payment Terms

16.1 Payment will be made by the Purchaser for the supply, delivery and installation of the equipment and provision of services and payment will be made as per Government policy on monthly or quarterly basis.

16.2 The amounts and types of currencies in which payment shall be made to the supplier under the Contract shall be as specified in the Bid form.

16.3 Method of Application

16.3.1 The Contractor shall submit to the Client four (4) copies of application for payment in a form approved by the Client. Application shall be accompanied by such invoices, receipts or other documentary evidence as the Client may require. The application for payment shall state the amount claimed and shall set forth in detail, in the order of the Price Schedule, particulars of the Works executed up to the date named in the Application and subsequent to the period covered by the last preceding certificate, if any.

16.4 Issuance of Certificate of Payment

Within 14 days after receiving an application for payment which the Contractor was entitled to receive, the

Client shall issue a Certificate of Payment to the Purchaser showing the amount due, with a copy to the Contractor. Certificate of payment may be withheld on account of:

- (a) Defects or short comings in the Goods supplied.
- (b) Non-satisfactory performance of the Goods and services.

16.5 Correction to Certificates of Payment

The Client may in any certificate of payment make any correction or modification that properly be made in respect of any previous certificate.

16.6 Payment

The Client shall pay the amount certified within the period stipulated in Schedule-A, Special Stipulations to Bid, after the date of delivery of each certificate of payment to the Purchaser.

16.7 Delayed Payment

If payment of any sum payable under 16.5 is delayed the contractor shall be entitled to receive interest on the amount unpaid during the period of delay. The interest shall be at the rate started in Schedule A special stipulations to Bid.

17. Prices

17.1 Prices charged by the Contractor for Services, Goods delivered, tested, and imparting training under the Contract shall not vary from the prices quoted by the Contractor in the Price Schedule.

18. Change Orders

18.1 The Client may at any time, by written notice to the Contractor, instruct the Contractor to alter, amend, omit, add to or otherwise change any part of the Works.

18.2 Upon notification by the Client of such change, the Contractor shall submit to the Client an estimate of costs for the proposed change (hereinafter referred to as the Change), within ten (10) calendar days of receipt of notice of the Change, and shall include an estimate of the impact (if any) of the Change on the delivery dates under the Contract, as well as a detailed schedule of execution of Works under the Contract.

18.3 The Contractor shall not perform Changes in accordance with Clause 18.1 above until the Client has authorized a Change Order in writing

18.4 Changes mutually agreed upon shall constitute a part of the work under this Contract, and the provisions and conditions of the Contract shall apply to said Change.

19. Contract Amendments

19.1 Subject to Clause 18, no variation in or modification of the conditions and terms of the Contract shall be made except by written amendment signed by the parties.

20. Assignment

The Contractor shall not assign in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

21. Subcontracts

21.1 The Supplier shall not subcontract all or any part of the contract without first obtaining the Purchaser's approval in writing of the subcontracting and the subcontractor.

21.2 The Supplier guarantees that any and all subcontractors of the Supplier for performance of any part of the work under the contract will comply fully with the terms of the Contract applicable to such part of the work under the contract.

22. Extensions in the Contractor's Performance

22.1 Delivery of the Service and performance of the Services shall be made by the Contractor in accordance with the Contract Execution Schedule, pursuant to Clause 10.2 hereof.

22.2 If at any time during performance of the Contract, the Contractor should encounter conditions impeding timely delivery of the Goods and performance of Services, the Contractor shall promptly notify the Client in writing of the facts of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Contractor's notice, the Client shall evaluate the situation and may at its discretion extend the Contractor's time

for performance.

- 22.3** Except as provided under Clause 25, a delay by the Contractor in the performance of its delivery obligations shall render the Contractor liable to the imposition of liquidated damages pursuant to Clause 23, unless an extension of time is agreed upon pursuant to Clause 22.2 without the application of liquidated damages.

23. Liquidated Damages

- 23.1** Subject to Clause 25 hereof, if the Contractor fails to deliver any or all of the Services or Goods within the time period(s) specified in the Contract, the Purchaser shall without prejudice to any other remedy it may have under the Contract, deduct from the Contract Price as liquidated damages, a sum of money equal to the percentage named in Schedule A Special Stipulations to Bid, of the Contract Value which is attributable to such part of the Services/Goods as cannot in consequence of the delay be put to the intended use for every day or part of a day between the scheduled delivery date with any extension of time thereof and the actual delivery date(s) provided that the amount so deducted shall not exceed in the aggregate, the percentage named in the Schedule-A to Bid of the Contract Price.

24. Termination for Default

- 24.1** The Purchaser may, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Contractor, terminate the Contract in whole or in part:

- (a) if the Contractor fails to deliver, test and impart training of any or all of the Goods within the time period(s) specified in the Contract, or any extension thereof granted by the Client pursuant to Clause 22; or
- (b) if the Contractor fails to perform any other obligation(s) under the Contract; and
- (c) if the Contractor, in either of the above circumstances, does not cure its failure within a period of two (2) weeks (or such longer period as the Client may authorize in writing) after receipt of a notice of default from the Client specifying the nature of the default(s).

- 24.2** In the event the Purchaser terminates the Contract in whole or in part, pursuant to Clause 24.1 above, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Contractor shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Contractor shall continue performance of the Contract to the extent not terminated.

25. Force Majeure

- 25.1** Notwithstanding the provisions of Clauses 22, 23 and 24, the Contractor shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

- 25.2** For purposes of this clause, "Force Majeure" means an event beyond the control of the Contractor and not involving the Contractor's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

- 25.3** If a Force Majeure situation arises, the Contractor shall promptly notify the Purchaser in writing of such condition and the cause thereof with a copy to the Client. Unless otherwise directed by the Purchaser in writing, the Contractor shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

26. Termination for Insolvency

- 26.1** The Purchaser may at any time terminate the Contract by giving written notice to the Contractor, if the Contractor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

27. Termination for Convenience

- 27.1** The Purchaser may, by written notice sent to the Contractor, terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of work under the Contract is terminated, and the date upon which such termination becomes effective.

27.2 The Service which are complete and ready for shipment within four (4) weeks after the Contractor's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

- (a) to have any portion thereof completed and delivered at the Contract terms and prices and/or
- (b) to cancel the remainder and pay to the Contractor an agreed amount for partially completed Goods and for materials and parts previously procured by the Contractor for the purpose of the Contract, together with a reasonable allowance for overhead & profit.

28. Resolution of Disputes

28.1 The Purchaser and the Contractor shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

28.2 If, after twenty-eight (28) days, from the commencement of such informal negotiations, the Purchaser and the Contractor have been unable to resolve amicably a Contract dispute, either party may, within one month, require that the dispute be referred for resolution by arbitration under the Rules of Pakistan Arbitration Act 1940, as amended, by one or more arbitrators selected in accordance with said Rules. The place for arbitration shall be Jamshoro/Hyderabad, Pakistan. The award shall be final and binding on the parties.

29. Contract Language

29.1 The Contract shall be in the English language, and all documentation related hereto will also be in the English language. The Contractor hereby represents that it has sufficient knowledge of the English language fully to understand the Contract.

29.2 The Contractor shall bear all costs of translation to English and all risks of the accuracy of such translation.

30. Applicable Law

30.1 The Contract shall be governed by and interpreted in accordance with the laws of Pakistan.

31. Notices

31.1 Notice to Contractor

All certificates, notices, instructions or orders to be given to the Contractor by the purchaser or the Client under the terms of the Contractor, shall be served by sending the same by registered post, cable, telex or facsimile transmission to or leaving the same at the Contractor's principal office, or at the Contractor's office in Pakistan or such other addresses as the Contractor shall nominate for the purpose, or may by handing over to the Contractor's representative.

31.2 Notice to Purchaser

Any notice to be given to the Purchaser under the terms of the Contract shall be served by sending the same by registered post, telex or facsimile transmission to or leaving the same at the following office:

**Chairman, Central Purchase Committee,
Liaquat University of Medical and Health Sciences
Jamshoro, Sindh-Pakistan**

31.3 Notice to Client

Any notice to be given to the Client under the terms of the Contract shall be sent by post, cable, telex or facsimile transmission or be left at the following addresses:

Registrar,
Liaquat University of Medical and Health Sciences,
Jamshoro, Sindh-Pakistan

32. Taxes and Duties

32.1 The Contractor shall be entirely responsible for all taxes, stamp duties and other such levies imposed outside Pakistan.

33. Client and Client's Representative

33.1 Client's Duties

The Client shall carry out the duties specified in the Contract. Except as expressly stated in the Contract, the Client shall have no authority to relieve the Contractor of any of his obligations under the Contract.

33.2 Client's Representative

The Client's Representative shall be appointed by and be responsible to the Client and shall only carry out such duties and exercise such authority as may be delegated to him by the Client under Clause 33.3.

33.3 Client's Power to Delegate

The Client may from time to time delegate to the Client's Representative any of the duties vested in the Client and may at any time revoke such delegation.

Any such delegation or revocation shall be in writing and shall not take effect until a copy thereof has been delivered to the Contractor and the Purchaser.

Any decision, instruction or approval given by the Client's Representative to the Contractor in accordance with such delegation shall have the same effect as though it had been given by the Client. However:

- (a) Any failure of the Client's Representative to disapprove any Goods or workmanship shall not prejudice the right of the Client to disapprove such Goods or workmanship and to give instructions for the rectification thereof;
- (b) If the Contractor questions any decision or instruction of the Client's Representative, the Contractor may refer the matter to the Client who shall confirm, reverse or vary such decision or instruction.

33.4 Client's Decisions and Instructions

The Contractor shall proceed with the decisions and instructions given by the Client in accordance with these Conditions.

34. Ownership of Goods

Goods to be supplied pursuant to the Contract shall become the property of the Purchaser when the Goods are Taken Over by the Purchaser.

35. Training

35.1 The Contractor shall arrange and undertake a comprehensive training program for the staff nominated by the Client to ensure that they shall acquire a good working knowledge of the operation, and general maintenance of the Goods to be supplied under the Contract.

In case of non-compliance with instructions, non-cooperation or other difficulties experienced by the Contractor with regard to any of these personnel, the Contractor shall apprise the Client. The Contractor shall then proceed to implement suitable remedial measures after consultation with the Client.

36. Compliance with Statutes and Regulations

36.1 The Contractor shall in all matters arising in the performance of the Contract conform in all respects with the provisions of all Central, Provincial and Local Laws, Regulations and By-Laws in force in Pakistan, and shall give all notices and pay all fees required to be given or paid and shall keep the Purchaser indemnified against all penalties and liability of any kind for breach of any of the same.

37. Headings

37.1 Headings, whether of clauses or of other parts of the Contract, are for reference only and are not to be construed as part of the contract.

38. Waiver

38.1 Failure of either party to insist upon strict performance by the other party of any provision of the Contract shall in no way be deemed or construed to affect in any way the right of that party to require such performance.

TECHNICAL SPECIFICATIONS

1. Statement of Work

Liaquat University of Medical and Health Sciences require supply and installation of IT Equipment/software as mentioned in Schedule-B of bidding document in line with following technical specification and guidelines.

2. Hardware Requirements

2.1 Hardware Specifications

2.1.1 The bidder must provide authentic copies/letters from the principal manufacturer showing that the supplied equipment is genuine and brand new and a statement that all items are not refurbished.

2.1.2 The bidder shall provide at least three years of warranty of all Active Equipment.

2.2 Commercial Availability of Hardware

All hardware items delivered under this contract shall be commercially available products. Commercial availability for the purpose of this clause refers to all hardware shall have been sold, installed and put into operation in more than two installations initiated under two separate contracts. All hardware proposed under the contract shall be commercially available at the time of signing of the contract.

2.3 Labeling of Equipment

All equipment shall be clearly labeled so as to correspond with the delivered documentation, with proper labeling scheme provided by the Client. All networking equipment, cables, connectors, ports, boxes must be clearly labeled.

2.4 Installation Considerations

Installation of new equipment, shall be co-located with existing equipment, and shall require close coordination between the Contractor and the Client personnel.

2.5 Power

All equipment delivered, unless otherwise specified, shall be capable for operating normally when supplied with single phase AC power within the range of 220-240V with the corresponding frequency of 50 Hz, inclusive, and should be protected from over-voltage, overheating and out-of-tolerance current surges. Proper power grounding should be provided for LUMHS-IT Data Center.

2.6 Safety

2.6.1 The inherent design of the equipment shall contain safety features, which reduce or eliminate hazards to personnel and equipment.

2.6.2 The Contractor shall be responsible for the elimination of identified hazards or the reduction of associated risk.

2.6.3 The Contractor shall, when possible, locate equipment so that access during operation, servicing, maintenance, repair or adjustment minimizes exposure of personnel to hazards, e.g. high voltage, electromagnetic radiation, sharp points and edges, etc.

2.6.4 The Contractor shall be responsible for the protection of the power sources, controls, and critical components of the redundant systems and subsystems by shielding or physical separation when possible.

2.6.5 When hazards cannot be eliminated, the Contractor shall be responsible for the addition of bilingual warnings and caution notices.

2.7 Uninterrupted Power Supply (UPS) & Software

The Contractor shall configure the software and cabling for the UPS to work flawlessly with OS, and must demonstrate that appropriate messages are generated if such a condition does occur.

3 Implementation Requirements

- 3.1 Bidder shall guarantee that his design implementation conforms to an open standard by which new services can be added without disruption to existing services.
- 3.2 Bidder shall ensure that the implementation is fault tolerant. This is accomplished by supplying a set of programs and procedures that allow the system recovery or roll back when a fault is detected.
- 3.3 The bidder must provide a document stating step-by-step procedures for installation and disaster recovery
- 3.4 The bidder must hand over all the recent patches and updates for Firmware/Hardware on a reliable media such as DVD ROMs with proper labeling during the installation to the Project Manager.

3.5 Availability and Reliability

- 3.5.1 The Bidder shall configure the system for high availability 24/7 of all hardware and software.
- 3.5.2 Availability is defined as the probability that a component shall be operationally ready to perform its function when called upon at any point in time.

4 Installation, Transition and Cut-Over

The Bidder shall submit in his proposal a complete installation, transition and cutover plan for the new system.

5 Delivery Instructions

The Bidder shall indicate his delivery approach clearly specifying the requirements for packing, shipping and unpacking of deliverable hardware, software and documentation. The approach shall address shipment of deliverables to the various designated (installation) sites. The approach shall also specify any special shipping constraints such as custom requirements, security requirements, access arrangement or loading dock requirements.

6 Installation Procedures

The Contractor shall submit detailed installation procedures for the new components specifying equipment checkout, installation constraints, operational cutover, maintenance prior to Client acceptance and if special security and/or access arrangements are required.

7 Site Preparation

Bidder shall be provided the opportunity to visit site to aid in the preparation of their response. Winning Bidder shall have the responsibility of conducting any surveys, preparation, and inspection of site. These responsibilities shall include:

- 7.1 Determination of sufficient power, air conditioning and floor space in support of the proposed Bidders equipment.
- 7.2 Identify and install, if necessary any special additional power and air conditioning requirements needed by the Bidders equipment.

8 Documentation

In response to the following subsections, please identify the documentation, which shall be provided in hard copy format, in soft copy format and in the form of on-line help.

8.1 Operational Documentation

Please describe the Operational Documentation to be provided.

8.2 User Documentation

Please describe the User Documentation to be provided.

9 Operations and Maintenance

It is important for Client to maintain continuous operational capability of the entire system, twenty-four (24) hours a day, seven (7) days a week, all year long without disruption to either service or performance. Therefore it is

important that the Contractor understands his responsibility regarding operation and maintenance during the warranty period.

The Bidder shall identify and provide those items of supply (repairable spares, parts and consumable supplies) that are needed to maintain design performance, reliability and availability standards specified in the technical requirements and specifications.

9.1 Test Equipment and Tools

The Bidder shall visit the project site's main center maintenance facility and shall evaluate the facilities ability to accomplish equipment corrective and preventive maintenance.

The objective of the visit is to identify additional skills and workshop equipment and tools needed to perform maintenance of the new equipment.

The Bidder must take the following into consideration:

- 9.1.1 All test equipment and tools required to develop and support the hardware and software subject to this document shall be mentioned by the Contractor to the Client at the completion of the project.
- 9.1.2 Test equipment used in the maintenance shall be state of the art in design aimed at providing an efficient, systematic and cost effective repair operation for all replaceable components.

10 Logistics

The Contractor shall provide maintenance, supply and procurement support necessary for Client to maintain all system subjects to this document at the contracted performance and reliability level. The Bidder shall include in his bid a detailed logistics plan as described in this section.

10.1 Spare Parts and Supply Support

- 10.1.1 The Contractor shall locally at client sites, maintain a stock of spare parts and tools sufficient for the maintenance of the delivered system during the warranty period.
- 10.1.2 The Contractor shall guarantee the availability of spare parts and technical assistance for all components (or appropriate alternatives) to ensure that the system runs for at least 05 years, without major changes, at the completion of final acceptance. Six months advance notice is required on any discontinued part(s) with a suggestion for alternatives.
- 10.1.3 The bid shall include a quotation and a unit price for each spare part.
- 10.1.4 The Bidder shall also identify and provide those items of supply that are needed to maintain performance, reliability and availability standards specified in the technical requirements and specifications for this document. The quantity of spare parts and consumable items provided and kept shall be the quantity required for one year of operating stock.

The following additional information shall also be provided:

- 10.1.5 The identification of critical items, items whose failure in the system would cause a system failure.
- 10.1.6 The identification of items of high cost and/or long lead time (over six weeks) and whose design reliability is such that normal stock replenishment would not justify maintaining a level of the item in stock.

10.2 Transport, Mobilization and Personnel Scheduling

The Contractor's logistics plan shall include support details for transportation, mobilization and personnel scheduling during project implementation and the warranty period.