

# **Dow University of Health Sciences**



## **Bidding Documents**

### **Single Stage – Two Envelope Procedure**

**As per Rule 46 (2) of SPPR, 2010 (Amended up to date)**

**IFB / NIT No: DUHS/DP/2023/248-249 Dated 11 October 2023  
(Ref. No: DUHS/DP/2023/249)**

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**Procurement of High-Performance Compute & Storage,  
Computer Systems, Laptops, Printers, UPS, Network  
Hardware and Miscellaneous ICT Items at Dow University  
of Health Sciences, Karachi**

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**Part One - Section I**  
**Instructions to Bidders**

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# Instructions to Bidders

## A. Introduction

### 1. Source of Funds

- 1.1 The Procuring agency has allocated funds / received / applied for loan / grant / federal / provincial / local government funds from the source(s) indicated in the bidding data in various currencies towards the cost of the project / schemes specified in the bidding data and it is intended that part of the proceeds of this loan / grant / funds / will be applied to eligible payments under the contract for which these bidding documents are issued.
- 1.2 Payment by the Fund will be made by procuring agency from university funds or only at the request of the Procuring agency and upon approval by the Government of Sindh., and in case of a project will be subject in all respect to the terms and conditions of the agreement. The Project Agreement prohibits a withdrawal from the allocated fund account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Federal Government / Sindh Government, is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Procuring agency shall derive any rights from the Project Agreement or have any claim to the allocated fund proceeds.

### 2. Eligible Bidders

- 2.1 This Invitation for Bids is open to all suppliers from eligible source as defined in the SPP Rules, 2010 (Amended 2019) and its Bidding Documents except as provided hereinafter.
- 2.2 Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Procuring agency to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation for Bids.
- 2.3 Government-owned enterprises in the Province of Sindh may participate only if they are legally and financially autonomous, if they operate under commercial law, and if they are not a dependent agency of the Government of Sindh.
- 2.4 Bidders intend to enter into an agreement or under an existing agreement in the form of a Joint Venture (JV) or Consortium shall not be eligible, unless otherwise specified in the Bid Data Sheet.
- 2.5 Bidders shall not be eligible to bid if they are under a declaration of ineligibility for corrupt and fraudulent practices issued by the any government organization in accordance with sub clause 34.1.

### 3. Eligible Goods and Services

- 3.1 All goods and related services to be supplied under the contract shall have their origin in eligible source countries, defined in the SPP Rules, 2010 (Amended 2019) and its Bidding Documents, and all expenditures made under the contract will be limited to such goods and services.

- 3.2 For purposes of this clause, “origin” means the place where the goods are mined, grown, or produced, or the place from which the related services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially-recognized 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 Bidder.

#### **4. Cost of Bidding**

- 4.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Procuring agency named in the Bid Data Sheet, hereinafter referred to as “the Procuring agency,” will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

### **B. The Bidding Documents**

#### **5. Content of Bidding Documents**

- 5.1 the bidding documents include:
- (a) Instructions to Bidders (ITB)
  - (b) Bid Data Sheet
  - (c) General Conditions of Contract (GCC)
  - (d) Special Conditions of Contract (SCC)
  - (e) Schedule of Requirements
  - (f) Technical Specifications
  - (g) Bid Form and Price Schedules
  - (h) Bid Security Form
  - (i) Contract Form
  - (j) Performance Security Form
  - (k) Manufacturer’s Authorization Form
- 5.2 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 to submit a bid not substantially responsive to the bidding documents in every respect will be at the Bidder’s risk and may result in the rejection of its bid.

#### **6. Clarification of Bidding Documents**

- 6.1 An interested Bidder requiring any clarification of the bidding documents may notify the Procuring agency in writing. The Procuring agency will respond in writing to any request for clarification of the bidding documents which it receives no later than five working days prior to the deadline for the submission of bids prescribed in the Bid Data Sheet. Written copies of the Procuring agency’s response (including an explanation of the query but without identifying the source of inquiry) will be sent to all interested bidders that have received the bidding documents.

#### **7. Amendment of Bidding Documents**

- 7.1 At any time prior to the deadline for submission of bids, the Procuring agency, for any reason, whether at its own initiative or in response to a clarification requested by a interested Bidder, may modify the bidding documents by amendment.

- 7.2 All interested bidders that have received the bidding documents will be notified of the amendment in writing, and will be binding on them.
- 7.3 In order to allow interested bidders reasonable time in which to take the amendment into account in preparing their bids, the Procuring agency, at its discretion, may extend the deadline for the submission of bids.

## **C. Preparation of Bids**

### **8. Language of Bid**

- 8.1 The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Procuring agency shall be written in the language specified in the Bid Data Sheet. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the Bid Data Sheet, in which case, for purposes of interpretation of the Bid, the translation shall govern.

### **9. Documents Comprising the Bid**

- 9.1 The bid prepared by the Bidder shall comprise the following components:
- a) a Bid Form and a Price Schedule completed in accordance with ITB Clauses 10, 11, and 12;
  - b) documentary evidence established in accordance with ITB Clause 13 that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;
  - c) documentary evidence established in accordance with ITB Clause 14 that the goods and ancillary services to be supplied by the Bidder are eligible goods and services and conform to the bidding documents; and
  - d) bid security furnished in accordance with ITB Clause 15.

### **10. Bid Form**

- 10.1 The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the bidding documents, indicating the goods to be supplied, a brief description of the goods, their country of origin, quantity, and prices.

### **11. Bid Prices**

- 11.1 The Bidder shall indicate on the appropriate Price Schedule the unit prices (where applicable) and total bid price of the goods it proposes to supply under the contract.
- 11.2 **For goods offered within the purchaser's country**, prices indicated on the relevant Price Schedule shall be on delivered duty paid (DDP) and/or **For goods offered from outside the purchaser's country**, prices indicated on the relevant Price Schedule shall be on CFR / CNF / C&F / CPT – Karachi basis. The price of other (incidental) services, if any, listed in the Bid Data Sheet will be entered separately.
- 11.3 The Bidder's separation of price components in accordance with ITB Clause 11.2 above will be solely for the purpose of facilitating the comparison of bids by the Procuring agency and will not in any way limit the Procuring agency's right to contract on any of the terms offered.
- 11.4 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the

contract and not subject to variation on any account, unless otherwise specified in the Bid Data Sheet. A bid submitted with an adjustable price quotation will be treated as nonresponsive and will be rejected, pursuant to ITB Clause 24. If, however, in accordance with the Bid Data Sheet, prices quoted by the Bidder shall be subject to adjustment during the performance of the contract, a bid submitted with a fixed price quotation will not be rejected, but the price adjustment would be treated as zero.

**12. Bid Currencies**

12.1 Prices shall be quoted in Pak Rupees unless otherwise specified in the Bid Data Sheet.

**13. Documents Establishing Bidder's Eligibility and Qualification**

13.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the Bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted.

13.2 The documentary evidence of the Bidder's eligibility to bid shall establish to the Procuring agency's satisfaction that the Bidder, at the time of submission of its bid, is from an eligible country as defined under ITB Clause 2.

13.3 The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish to the Procuring agency's satisfaction:

- (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 the goods in the Procuring agency's country;
- (b) that the Bidder has the financial, technical, and production capability necessary to perform the contract;
- (c) that, in the case of a Bidder not doing business within the Procuring agency's country, the Bidder is or will be (if awarded the contract) represented by an Agent in that country equipped, and able to carry out the Supplier's maintenance, repair, and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and
- (d) that the Bidder meets the qualification criteria listed in the Bid Data Sheet.

**14. Documents Establishing Goods' Eligibility and Conformity to Bidding Documents**

14.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the bidding documents of all goods and services which the Bidder proposes to supply under the contract.

14.2 The documentary evidence of the eligibility of the goods and services shall consist of a statement in the Price Schedule of the country of origin of the goods and services offered which shall be confirmed by a certificate of origin issued at the time of shipment.

14.3 The documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings, and data, and shall consist



of:

- a. a detailed description of the essential technical and performance characteristics of the goods;
  - b. a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period to be specified in the Bid Data Sheet, following commencement of the use of the goods by the Procuring agency; and
  - c. an item-by-item commentary on the Procuring agency's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications, or a statement of deviations and exceptions to the provisions of the Technical Specifications.
- 14.4 For purposes of the commentary to be furnished pursuant to ITB Clause 14.3(c) above, the Bidder shall note that standards for workmanship, material, and equipment, as well as references to brand names or catalogue numbers designated by the Procuring agency in its Technical Specifications, are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names, and/or catalogue numbers in its bid, provided that it demonstrates to the Procuring agency's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

## **15 Bid Security**

- 15.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, a bid security in the amount specified in the Bid Data Sheet.
- 15.2 The bid security is required to protect the Procuring agency against the risk of Bidder's conduct which would warrant the security's forfeiture, pursuant to ITB Clause 15.7.
- 15.3 The bid security shall be in Pak. Rupees and shall be in one of the following forms:
- (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the Procuring agency's country, in the form provided in the bidding documents or another form acceptable to the Procuring agency and valid for thirty (30) days beyond the validity of the bid; or
  - (b) irrevocable encashable on-demand Bank call-deposit.
- 15.4 Any bid not secured in accordance with ITB Clauses 15.1 and 15.3 will be rejected by the Procuring agency as nonresponsive, pursuant to ITB Clause 24.
- 15.5 Unsuccessful bidders' bid security will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity prescribed by the Procuring agency pursuant to ITB Clause 16.
- 15.6 The successful Bidder's bid security will be discharged upon the Bidder signing the contract, pursuant to ITB Clause 32, and furnishing the performance security, pursuant to ITB Clause 33.
- 15.7 The bid security may be forfeited:
- (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form; or
  - (b) in the case of a successful Bidder, if the Bidder fails:

- (i) to sign the contract in accordance with ITB Clause 32;
- or**
- (ii) to furnish performance security in accordance with ITB Clause 33.

## **16 Period of Validity of Bids**

- 16.1 Bids shall remain valid for the period specified in the Bid Data Sheet after the date of bid opening prescribed by the Procuring agency, pursuant to ITB Clause 19. A bid valid for a shorter period shall be rejected by the Procuring agency as nonresponsive.
- 16.2 In exceptional circumstances, the Procuring agency may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The bid security provided under ITB Clause 15 shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid, except as provided in the bidding document.

## **17 Format and Signing of Bid**

- 17.1 The Bidder shall prepare an original and the number of copies of the bid indicated in the Bid Data Sheet, clearly marking each "ORIGINAL BID" and "COPY OF BID," as appropriate. In the event of any discrepancy between them, the original shall govern.
- 17.2 The original and the copy or copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the contract. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid.
- 17.3 Any interlineations, erasures, or overwriting shall be valid only if they are initialed by the person or persons signing the bid.
- 17.4 The Bidder shall furnish information as described in the Form of Bid on commissions or gratuities, if any, paid or to be paid to agents relating to this Bid, and to contract execution if the Bidder is awarded the contract.

## **D. Submission of Bids**

### **18 Sealing and Marking of Bids**

- 18.1 The Bidder shall seal the original and each copy of the bid in separate envelopes, duly marking the envelopes as "ORIGINAL" and "COPY." The envelopes shall then be sealed in an outer envelope.
- 18.2 The inner and outer envelopes shall:
  - (a) be addressed to the Procuring agency at the address given in the Bid Data Sheet; and
  - (b) bear the Project name indicated in the Bid Data Sheet, the Invitation for Bids (IFB) title and number indicated in the Bid Data Sheet, and a statement: "DO NOT OPEN BEFORE," to be completed with the time and the date specified in the Bid Data Sheet, pursuant to ITB Clause 2.2.
- 18.3 The inner envelopes shall also indicate the name and address of the Bidder to

enable the bid to be returned unopened in case it is declared “late”.

- 18.4 If the outer envelope is not sealed and marked as required by ITB Clause 18.2, the Procuring agency will assume no responsibility for the bid’s misplacement or premature opening.

**19 Deadline for Submission of Bids**

- 19.1 Bids must be received by the Procuring agency at the address specified under ITB Clause 18.2 no later than the time and date specified in the Bid Data Sheet.

- 19.2 The Procuring agency may, at its discretion, extend this deadline for the submission of bids by amending the bidding documents in accordance with ITB Clause 7, in which case all rights and obligations of the Procuring agency and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

**20 Late Bids**

- 20.1 Any bid received by the Procuring agency after the deadline for submission of bids prescribed by the Procuring agency pursuant to ITB Clause 19 will be rejected and returned unopened to the Bidder.

**21 Modification and Withdrawal of Bids**

- 21.1 The Bidder may modify or withdraw its bid after the bid’s submission, provided that written notice of the modification, including substitution or withdrawal of the bids, is received by the Procuring agency prior to the deadline prescribed for submission of bids.

- 21.2 The Bidder’s modification or withdrawal notice shall be prepared, sealed, marked, and dispatched in accordance with the provisions of ITB Clause 18. by a signed confirmation copy, postmarked not later than the deadline for submission of bids.

- 21.3 No bid may be modified after the deadline for submission of bids.

- 21.4 No bid may be withdrawn in the interval between the deadline for submission of bids 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 the ITB Clause 15.7.

## **E. Opening and Evaluation of Bids**

**22 Opening of Bids by the Procuring agency**

- 22.1 The Procuring agency will open all bids in the presence of bidders’ representatives who choose to attend, at the time, on the date, and at the place specified in the Bid Data Sheet. The bidders’ representatives who are present shall sign a register evidencing their attendance.

- 22.2 The bidders’ names, bid modifications or withdrawals, bid prices, discounts, and the presence or absence of requisite bid security and such other details as the Procuring agency, at its discretion, may consider appropriate, will be announced at the opening. No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened to the Bidder pursuant to ITB Clause 20.

- 22.3 Bids (and modifications sent pursuant to ITB Clause 21.2) that are not opened and

read out at bid opening shall not be considered further for evaluation, irrespective of the circumstances. Withdrawn bids will be returned unopened to the bidders.

22.4 The Procuring agency will prepare minutes of the bid opening.

## **23 Clarification of Bids**

23.1 During evaluation of the bids, the Procuring agency may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered, or permitted.

## **24 Preliminary Examination**

24.1 The Procuring agency will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.

24.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected. If the Supplier does not accept the correction of the errors, its bid will be rejected, and its bid security may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail.

24.3 The Procuring agency may waive any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

24.4 Prior to the detailed evaluation, pursuant to ITB Clause 25 the Procuring agency will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these Clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. Deviations from, or objections or reservations to critical provisions, **such as** those concerning Bid Security (ITB Clause 15), Applicable Law (GCC Clause 30), and Taxes and Duties (GCC Clause 32), will be deemed to be a material deviation. The Procuring agency's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

24.5 If a bid is not substantially responsive, it will be rejected by the Procuring agency and may not subsequently be made responsive by the Bidder by correction of the nonconformity.

## **25 Evaluation and Comparison of Bids**

25.1 The Procuring agency will evaluate and compare the bids which have been determined to be substantially responsive, pursuant to ITB Clause 24.

25.2 The Procuring agency's evaluation of a bid will be on delivered duty paid (DDP) price inclusive of prevailing taxes and duties and/or on CFR / CNF / C&F / CPT – Karachi basis and will exclude any allowance for price adjustment during the period of execution of the contract, if provided in the bid.

25.3 The Procuring agency's evaluation of a bid will take into account, in addition to the bid price quoted in accordance with ITB Clause 11.2, one or more of the following factors as specified in the Bid Data Sheet, and quantified in ITB Clause

25.4:

- (a) incidental costs
- (b) delivery schedule offered in the bid;
- (c) deviations in payment schedule from that specified in the Special Conditions of Contract;
- (d) the cost of components, mandatory spare parts, and service;
- (e) the availability Procuring agency of spare parts and after- sales services for the equipment offered in the bid;
- (f) the projected operating and maintenance costs during the life of the equipment;
- (g) the performance and productivity of the equipment offered; and/or
- (h) other specific criteria indicated in the Bid Data Sheet and/or in the Technical Specifications.

25.4 For factors retained in the Bid Data Sheet pursuant to ITB 25.3, one or more of the following quantification methods will be applied, as detailed in the Bid Data Sheet:

(a) Incidental costs provided by the bidder will be added by Procuring agency to the delivered duty paid (DDP) price at the final destination.

(b) *Delivery schedule.*

(i) The Procuring agency requires that the goods under the Invitation for Bids shall be delivered at the time specified in the Schedule of Requirements which will be treated as the base, a delivery “adjustment” will be calculated for bids by applying a percentage, specified in the Bid Data Sheet, of the DDP price for each week of delay beyond the base, and this will be added to the bid price for evaluation. No credit shall be given to early delivery.

**or**

(ii) The goods covered under this invitation are required to be delivered (shipped) within an acceptable range of weeks specified in the Schedule of Requirement. No credit will be given to earlier deliveries, and bids offering delivery beyond this range will be treated as nonresponsive. Within this acceptable range, an adjustment per week, as specified in the Bid Data Sheet, will be added for evaluation to the bid price of bids offering deliveries later than the earliest delivery period specified in the Schedule of Requirements.

**or**

(iii) The goods covered under this invitation are required to be delivered in partial shipments, as specified in the Schedule of Requirements. Bids offering deliveries earlier or later than the specified deliveries will be adjusted in the evaluation by adding to the bid price a factor equal to a percentage, specified in the Bid Data Sheet, of DDP price per week of variation from the specified delivery schedule.

(c) *Deviation in payment schedule.*

(i) Bidders shall state their bid price for the payment schedule outlined in the SCC. Bids will be evaluated on the basis of this base price. Bidders are, however, permitted to state an alternative payment schedule and indicate the reduction in bid price they wish to offer

for such alternative payment schedule. The Procuring agency may consider the alternative payment schedule offered by the selected Bidder.

**or**

- (ii) The SCC stipulates the payment schedule offered by the Procuring agency. If a bid deviates from the schedule and if such deviation is considered acceptable to the Procuring agency, the bid will be evaluated by calculating interest earned for any earlier payments involved in the terms outlined in the bid as compared with those stipulated in this invitation, at the rate per annum specified in the Bid Data Sheet.

(d) *Cost of spare parts.*

- (i) The list of items and quantities of major assemblies, components, and selected spare parts, likely to be required during the initial period of operation specified in the Bid Data Sheet, is annexed to the Technical Specifications. The total cost of these items, at the unit prices quoted in each bid, will be added to the bid price.

**or**

- (ii) The Procuring agency will draw up a list of high-usage and high-value items of components and spare parts, along with estimated quantities of usage in the initial period of operation specified in the Bid Data Sheet. The total cost of these items and quantities will be computed from spare parts unit prices submitted by the Bidder and added to the bid price.

**or**

- (iii) The Procuring agency will estimate the cost of spare parts usage in the initial period of operation specified in the Bid Data Sheet, based on information furnished by each Bidder, as well as on past experience of the Procuring agency or other procuring agencies in similar situations. Such costs shall be added to the bid price for evaluation.

(e) *Spare parts and after sales service facilities in the Procuring agency's country.*

The cost to the Procuring agency of establishing the minimum service facilities and parts inventories, as outlined in the Bid Data Sheet or elsewhere in the bidding documents, if quoted separately, shall be added to the bid price.

(f) *Operating and maintenance costs.*

Since the operating and maintenance costs of the goods under procurement form a major part of the life cycle cost of the equipment, these costs will be evaluated in accordance with the criteria specified in the Bid Data Sheet or in the Technical Specifications.

(g) *Performance and productivity of the equipment.*

- (i) Bidders shall state the guaranteed performance or efficiency in response to the Technical Specification. For each drop in the performance or efficiency below the norm of 100, an adjustment for an amount specified in the Bid Data Sheet will be added to the

bid price, representing the capitalized cost of additional operating costs over the life of the plant, using the methodology specified in the Bid Data Sheet or in the Technical Specifications.

**or**

(ii) Goods offered shall have a minimum productivity specified under the relevant provision in the Technical Specifications to be considered responsive. Evaluation shall be based on the cost per unit of the actual productivity of goods offered in the bid, and adjustment will be added to the bid price using the methodology specified in the Bid Data Sheet or in the Technical Specifications.

(h) *Specific additional criteria indicated in the Bid Data Sheet and/or in the Technical Specifications.*

The relevant evaluation method shall be detailed in the Bid Data Sheet and/or in the Technical Specifications.

### **Alternative**

25.4 Merit Point System:

The following merit point system for weighing evaluation factors can be applied if none of the evaluation methods listed in 25.4 above has been retained in the Bid Data Sheet. The number of points allocated to each factor shall be specified in the Bid Data Sheet.

*[In the Bid Data Sheet, choose from the range of]*

Evaluated price of the goods	60 to 90
Cost of common list spare parts	0 to 20
Technical features, and maintenance and operating costs	0 to 20
Availability of service and spare parts	0 to 20
Standardization	0 to 20
Total	100

The bid scoring the highest number of points will be deemed to be the lowest evaluated bid.

## **26 Contacting the Procuring agency**

26.1 Subject to ITB Clause 23, no Bidder shall contact the Procuring agency on any matter relating to its bid, from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Procuring agency, it should do so in writing.

26.2 Any effort by a Bidder to influence the Procuring agency in its decisions on bid evaluation, bid comparison, or contract award may result in the rejection of the Bidder's bid.

## **F. Award of Contract**

### **27 Post-qualification**

27.1 In the absence of prequalification, the Procuring agency will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB Clause 13.3.

27.2 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 ITB

Clause 13.3, as well as such other information as the Procuring agency deems necessary and appropriate.

- 27.3 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid, in which event the Procuring agency will proceed to the next lowest evaluated bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.

**28 Award Criteria**

- 28.1 Subject to ITB Clause 30, the Procuring agency will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.

**29 Procuring agency's Right to Vary Quantities at Time of Award**

- 29.1 The Procuring agency reserves the right at the time of contract award to increase or decrease, the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.

**30 Procuring agency's Right to Accept any Bid and to Reject any or All Bids**

- 30.1 The Procuring agency reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Procuring agency's action.



### **31 Notification of Award**

- 31.1 Prior to the expiration of the period of bid validity, the Procuring agency will notify the successful Bidder in writing by registered letter or by cable, to be confirmed in writing by registered letter, that its bid has been accepted.
- 31.2 The notification of award will constitute the formation of the Contract.
- 31.3 Upon the successful Bidder's furnishing of the performance security pursuant to ITB Clause 33, the Procuring agency will promptly notify each unsuccessful Bidder and will discharge its bid security, pursuant to ITB Clause 15.

### **32 Signing of Contract**

- 32.1 At the same time as the Procuring agency notifies the successful Bidder that its bid has been accepted, the Procuring agency will send the Bidder the Contract Form provided in the bidding documents, incorporating all agreements between the parties.
- 32.2 Within thirty (30) days of receipt of the Contract Form, the successful Bidder shall sign and date the contract and return it to the Procuring agency.

### **33 Performance Security**

- 33.1 Within twenty (20) days of the receipt of notification of award from the Procuring agency, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the bidding documents, or in another form acceptable to the Procuring agency.
- 33.2 Failure of the successful Bidder to comply with the requirement of ITB Clause 32 or ITB Clause 33.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Procuring agency may make the award to the next lowest evaluated Bidder or call for new bids.

### **34 Corrupt or Fraudulent Practices**

- 34.1 The Government of Sindh requires that Procuring agency's (including beneficiaries of donor agencies' loans), as well as Bidders/Suppliers/Contractors under Government-financed or Procuring Agency-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the SPPRA, in accordance with the SPP Act, 2009 and Rules made thereunder:
  - (a) defines, for the purposes of this provision, the terms set forth below as follows:
    - (i) "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and
    - (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring agency, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non- competitive levels and to deprive the Procuring agency

of the benefits of free and open competition;

- (b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
- (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a Government-financed contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a Government-financed contract.

34.2 Furthermore, Bidders shall be aware of the provision stated in sub-clause 5.4 and sub-clause 24.1 of the General Conditions of Contract.

**Part One - Section II**  
**General Conditions of Contract**

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## **General Conditions of Contract**

### **1. Definitions**

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

- (a) “The Contract” means the agreement entered into between the Procuring agency and the Supplier, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- (b) “The Contract Price” means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations.
- (c) “The Goods” means all of the equipment, machinery, and/or other materials which the Supplier is required to supply to the Procuring agency under the Contract.
- (d) “The Services” means those services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the Supplier covered under the Contract.
- (e) “GCC” means the General Conditions of Contract contained in this section.
- (f) “SCC” means the Special Conditions of Contract.
- (g) “The Procuring agency” means the organization purchasing the Goods, as named in SCC.
- (h) “The Procuring agency’s country” is the country named in SCC.
- (i) “The Supplier” means the individual or firm supplying the Goods and Services under this Contract.
- (j) “The Project Site,” where applicable, means the place or places named in SCC.
- (k) “Day” means calendar day.

### **2. Application**

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

### **3. Country of Origin**

3.1 All Goods and Services supplied under the Contract shall have their origin in the countries and territories eligible under the rules and further elaborated in the SCC or Technical Specifications.

3.2 For purposes of this Clause, “origin” means 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 Manufacturer / Supplier.

#### **4. Technical Specifications**

4.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods' country of origin. Such standards shall be the latest issued by the concerned institution.

#### **5. Use of Contract Documents and Information; Inspection and Audit by the Government**

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

5.2 The Supplier shall not, without the Procuring agency's prior written consent, make use of any document or information enumerated in GCC Clause 5.1 except for purposes of performing the Contract.

5.3 Any document, other than the Contract itself, enumerated in GCC Clause 5.1 shall remain the property of the Procuring agency and shall be returned (all copies) to the Procuring agency on completion of the Supplier's performance under the Contract if so required by the Procuring agency.

5.4 The Supplier shall permit the Procuring agency to inspect the Supplier's accounts and records relating to the performance of the Supplier and to have them audited by auditors appointed by the procuring agency, if so required.

#### **6. Patent Rights**

6.1 The Supplier shall indemnify the Procuring agency against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof in the Procuring agency's country.

#### **7. Performance Security**

7.1 Within twenty (20) days of receipt of the notification of Contract award, the successful Bidder shall furnish to the Procuring agency the performance security in the amount specified in SCC.

7.2 The proceeds of the performance security shall be payable to the Procuring agency as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

7.3 The performance security shall be denominated in the currency of the Contract acceptable to the Procuring agency and shall be in one of the following forms:

- (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the Procuring agency's country, in the form provided in the bidding documents or another form acceptable to the Procuring agency; or

(b) a cashier's or certified check.

7.4 The performance security will be discharged by the Procuring agency and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in SCC.

## **8. Inspections and Tests**

8.1 The Procuring agency or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Procuring agency. SCC and the Technical Specifications shall specify what inspections and tests the Procuring agency requires and where they are to be conducted. The Procuring agency shall notify the Supplier in writing, in a timely manner, of the identity of any representatives 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/or at the Goods' final destination. If 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 Procuring agency

8.3 Should any inspected or tested Goods fail to conform to the Specifications, the Procuring agency may reject the Goods, and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Procuring agency.

8.4 The Procuring agency's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival in the Procuring agency's country shall in no way be limited or waived by reason of the Goods having previously been inspected, tested, and passed by the Procuring agency or its representative prior to the Goods' shipment from the country of origin.

8.5 Nothing in GCC Clause 8 shall in any way release the Supplier from any warranty or other obligations under this Contract.

## **9. Packing**

9.1 The Supplier 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. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the Procuring agency.

## **10. Delivery and Documents**

- 10.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in the Schedule of Requirements. The details of shipping and/or other documents to be furnished by the Supplier are specified in SCC.
- 10.2 Documents to be submitted by the Supplier are specified in SCC.

## **11. Insurance**

- 11.1 The Goods supplied under the Contract shall be delivered duty paid (DDP) / CFR / CNF / C&F / CPT – Karachi under which risk is transferred to the buyer after having been delivered at consignees end or Karachi Port, hence insurance coverage is sellers responsibility.

## **12. Transportation**

- 12.1 The Supplier is required under the Contract to transport the Goods to a specified place of destination outside and within the Procuring agency's country, transport to such place of destination in the Procuring agency's country, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price.

## **13. Incidental Services**

- 13.1 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:
- (a) performance or supervision of on-site assembly and/or start-up of the supplied Goods;
  - (b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;
  - (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;
  - (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
  - (e) training of the Procuring agency's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.
- 13.2 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged for other parties by the Supplier for similar services.

## **14. Spare Parts**

- 14.1 As specified in SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:
- (a) such spare parts as the Procuring agency may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
  - (b) in the event of termination of production of the spare parts:



- (i) advance notification to the Procuring agency of the pending termination, in sufficient time to permit the Procuring agency to procure needed requirements; and
- (ii) following such termination, furnishing at no cost to the Procuring agency, the blueprints, drawings, and specifications of the spare parts, if requested.

## **15. Warranty**

- 15.1 The Supplier warrants that the Goods supplied 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 Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the Procuring agency's specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.
- 15.2 This warranty shall remain valid for twelve (12) months or according to the requirement of extended warranty period after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract. In any case this period shall not exceed six (06) months beyond the warranty expiration period from the date of taking over of goods by the procuring agency, unless specified otherwise in SCC.
- 15.3 The Procuring agency shall promptly notify the Supplier in writing of any claims arising under this warranty.
- 15.4 Upon receipt of such notice, the Supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective Goods or parts thereof, without costs to the Procuring agency.
- 15.5 If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, within a reasonable period, the Procuring agency may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Procuring agency may have against the Supplier under the Contract.
- 15.6 The provisions of this Clause include all the expenses that the bidder may have to incur for delivery and installation of such replacement parts, material and equipment as are needed for satisfactory operation of the goods at the consignees end.
- 15.7 During the period of warranty, the bidder shall remedy, at his / her expense all defects in design, material and workmanship that may develop or are revealed under normal use of the goods upon receiving writing notice from the procuring agency; the notice shall indicate in what respect the goods are faulty.
- 15.8 The bidder shall provide warranty / guarantee for supply of reagents, kits and chemicals, consumables, films and ancillaries for at least 10 years (where applicable).

- 15.9 The bidder shall remain responsible for providing after sale services even after expiry of warranty / guarantee period and sign a Service Contract including parts or without parts with Procuring Agency for 05 years (minimum). Bidder shall separately quote the price of service contract (in terms of percentage) inclusive of parts and without parts, separately.
- 15.10 In case of consumable items, reagents, kits, chemicals, films etc. the contractor shall remain responsible for specificity, efficacy & sensitivity with maximum period of expiry as much allowed by manufacturer.
- 15.11 The Procuring Agency shall promptly notify the Bidder in writing of any claims arising out of this warranty.
- 15.12 The bidder shall be responsible to ensure the 90% uptime of the machinery / equipment during the warranty period.

## **16. Payment**

- 16.1 The method and conditions of payment to be made to the Supplier under this Contract shall be specified in SCC.
- 16.2 The Supplier's request(s) for payment shall be made to the Procuring agency in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and Services performed, and by documents submitted pursuant to GCC Clause 10, and upon fulfillment of other obligations stipulated in the Contract.
- 16.3 Payments shall be made promptly by the Procuring agency, but in no case later than sixty (60) days after submission of an invoice or claim by the Supplier.
- 16.4 The currency of payment shall be in Pak. Rupees for Goods supplied from within the Procuring Agency's country on DDP basis and payment shall be made in Foreign Currency. through irrevocable letter of credit for Goods supplied from outside the Procuring Agency's country on CFR / CNF/ C&F / CPT Karachi Basis.

## **17. Prices**

- 17.1 Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in SCC or in the Procuring agency's request for bid validity extension, as the case may be.

## **18. Change Orders**

- 18.1 The Procuring agency may at any time, by a written order given to the Supplier pursuant to GCC Clause 31, make changes within the general scope of the Contract in any one or more of the following:
- (a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Procuring agency;
  - (b) the method of shipment or packing;
  - (c) the place of delivery; and/or
  - (d) the Services to be provided by the Supplier.

18.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Procuring agency's change order.

**19. Contract Amendments**

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

**20. Assignment**

20.1 The Supplier shall not assign, in whole or in part, its obligations to perform under this Contract, except with the Procuring agency's prior written consent.

**21. Subcontracts**

21.1 The Supplier shall notify the Procuring agency in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.

21.2 Subcontracts must comply with the provisions of GCC Clause 3.

**22. Delay in the Supplier's Performance**

22.1 Delivery of the Goods and performance of Services shall be made by the Supplier in accordance with the time schedule prescribed by the Procuring agency in the Schedule of Requirements / Contract Award.

22.2 If at any time during performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Procuring agency in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Procuring agency shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of Contract.

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

**23. Liquidated Damages**

23.1 Subject to GCC Clause 25, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Procuring agency shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in SCC. Once the maximum is reached, the Procuring agency may consider termination of

the Contract pursuant to GCC Clause 24.

## **24. Termination for Default**

24.1 The Procuring agency, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part:

- (a) if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Procuring agency pursuant to GCC Clause 22; or
- (b) if the Supplier fails to perform any other obligation(s) under the Contract.
- (c) if the Supplier, in the judgment of the Procuring agency has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this clause:

“corrupt practice” means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.

“fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.

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

## **25. Force Majeure**

25.1 Notwithstanding the provisions of GCC Clauses 22, 23, and 24, the Supplier 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 Supplier and not involving the Supplier’s fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Procuring agency in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

25.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Procuring agency in writing of such condition and the cause thereof. Unless otherwise directed by the Procuring agency in writing, the Supplier 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 Procuring agency may at any time terminate the Contract by giving written notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Procuring agency.

**27. Termination for Convenience**

27.1 The Procuring agency, by written notice sent to the Supplier, may 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 Procuring agency's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

27.2 The Goods that are complete and ready for shipment within thirty (30) days after the Supplier's receipt of notice of termination shall be accepted by the Procuring agency at the Contract terms and prices. For the remaining Goods, the Procuring agency may elect:

- (a) to have any portion completed and delivered at the Contract terms and prices; and/or
- (b) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Services and for materials and parts previously procured by the Supplier.

**28. Resolution of disputes**

28.1 The Procuring agency and the Supplier 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 thirty (30) days from the commencement of such informal negotiations, the Procuring agency and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in SCC. These mechanisms may include, but are not restricted to, conciliation mediated by a third party, adjudication in an agreed manner and/or arbitration.

**29. Governing Language**

29.1 The Contract shall be written in the language specified in SCC. Subject to GCC Clause 30, the version of the Contract written in the specified language shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

**30. Applicable Law**

30.1 The Contract shall be interpreted in accordance with the laws of the Procuring agency's country (Islamic Republic of Pakistan), unless otherwise specified in SCC.

**31. Notices**

31.1 Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing or by cable, telex, or facsimile and confirmed in writing to the other party's address specified in SCC.

31.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

**32. Taxes and Duties**

32.1 Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Procuring agency in case of Delivered Duty Paid (DDP) basis.

# Dow University of Health Sciences



## Bidding Documents

**Single Stage – Two Envelope Procedure**  
As per Rule 46 (2) of SPPR, 2010 (Amended 2019)

**IFB / NIT No: DUHS/DP/2023/248-249 Dated 11 October 2023**  
**(Ref. No: DUHS/DP/2023/249)**

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**Procurement of High-Performance Compute & Storage,  
Computer Systems, Laptops, Printers, UPS, Network  
Hardware and Miscellaneous ICT Items at Dow University  
of Health Sciences, Karachi**

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### **PART TWO (PROCUREMENT SPECIFIC PROVISIONS)**

- Invitation for Bids (IFB)
- Bid Data Sheet (BDS)
- Special Conditions of Contract (SCC)
- Schedule of Requirements
- Technical Specifications
- Sample Form
- Eligibility

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**Part Two - Section I.  
Invitation for Bids**

**Invitation for Bids (IFB) / Notice Inviting Tender (NIT)**  
**IFB / NIT No: DUHS/DP/2023/248-249 Dated 11 October 2023**

Dow University of Health Sciences (DUHS), Karachi invites following sealed bids on CNF basis and/or DDP Basis (Excluding GST), from the Manufacturers or authorized Agents / Distributors of Manufacturers available on ‘List of Active Taxpayers’ of FBR for Income Tax & Sales Tax.

Name of Bid	Tender Reference No.
Procurement of Equipment / Instruments for the Department of Ophthalmology & Visual Sciences.	DUHS/DP/2023/248
Procurement of High-Performance Compute & Storage, Computer Systems, Laptops, Printers, UPS, Network Hardware and Miscellaneous ICT Items.	DUHS/DP/2023/249

Tender fee	Rs. 2,000/- (Rupees Two Thousand Only) Non-Refundable in shape of Pay Order / Demand Draft in favor of Dow University of Health Sciences, Karachi.
Bidding Procedure	Single Stage – Two Envelopes
Bid security	Two percent (2%) of the total bid value.
Tender purchasing date	From the date of publishing to 22 <sup>nd</sup> November 2023
Deadline for submission of bids	23 <sup>rd</sup> November 2023 up to 12:00 Hrs.
Bid Opening Date & Time	23 <sup>rd</sup> November at 12:30 Hrs.

Bidding Document containing detailed terms & conditions can be obtained against non-refundable pay Order / Demand Draft of Rs. 2,000/- being tender fee in favor of Dow University of Health Sciences during office hours. No tender shall be sold on the date of opening of bid. Tender Notice and bidding documents are also available on the websites of Dow University of Health Sciences ([www.duhs.edu.pk](http://www.duhs.edu.pk)) and Sindh Public Procurement Regulatory Authority (<http://ppms.pprasindh.gov.pk>), in this situation, bidder is required to enclose Pay Order / Demand Draft of tender fee (Rs. 2000/-) with their bid, which must be issued by a scheduled bank within the tender purchasing dates, otherwise bid will not be entertained. DUHS may issue the clarifications or amendments in respect of the bidding documents which will be uploaded on both websites, DUHS will not be responsible of any confusion or misunderstanding in this regard.

**The Bidder shall submit an original and one copy of the bid in separate sealed envelopes, clearly marking each “ORIGINAL BID” and “COPY OF BID,” as appropriate.**

The Dow University of Health Sciences, Karachi (DUHS) reserves the right to reject any or all the bids subject to the relevant provisions of SPP Rules 2010.

**Address for Purchasing of bidding documents, submission and opening of bids:**

Procurement Directorate at Library Block, Dow University of Health Sciences (Ojha Campus), SUPARCO Road, off Main University Road, Gulzar-e-Hijri, Scheme No. 33, Karachi.  
 Phone No: +92-21-38771111 (Ext. 4433), Email: [director.procurement@duhs.edu.pk](mailto:director.procurement@duhs.edu.pk)

**Director Procurement**  
**Dow University of Health Sciences, Karachi**

**Section II.**  
**Bid Data Sheet**

## Bid Data Sheet

The following specific data for the goods to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB) Part One. Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

<b>Introduction</b>	
<b>ITB 1.1</b>	<b>Name of Procuring Agency:</b> Dow University of Health Sciences, Karachi (DUHS)
<b>ITB 1.1</b>	<b>Name of Project/Scheme/Department/Institute:</b> Procurement of High-Performance Compute & Storage, Computer Systems, Laptops, Printers, UPS, Network Hardware and Miscellaneous ICT Items at Dow University of Health Sciences, Karachi
<b>ITB 1.1</b>	<b>Name of Contract:</b> Procurement of High-Performance Compute & Storage, Computer Systems, Laptops, Printers, UPS, Network Hardware and Miscellaneous ICT Items at Dow University of Health Sciences, Karachi (Ref. No: DUHS/DP/2023/249)  NIT No: DUHS/DP/2023/248-249 Dated 11 October 2023
<b>ITB 4.1</b>	<b>Name of Procuring agency:</b> Dow University of Health Sciences, Karachi (DUHS).
<b>ITB 6.1</b>	<b>Postal Address:</b> Dow University of Health Sciences (Ojha Campus), Procurement Directorate at Library Block, SUPARCO Road, off Main University Road, Gulzar-e-Hijri, Scheme No. 33, Karachi. Phone No. + 92-21-99261497, Email: director.procurement@duhs.edu.pk
<b>ITB 8.1</b>	Language of the bid shall be ENGLISH.

<b>Bid Price and Currency</b>	
<b>ITB 11.2</b>	The price quoted shall be in <b>Pakistani Rupee</b> for the Goods offered within the Procuring Agency's Country on delivered duty paid (DDP) Price.  The price quoted shall be <b>in foreign Currency</b> for the Goods offered from Outside the Procuring Agency's Country on CFR / CNF/ C&F / CPT Karachi Basis Price of incidental services, if any, must be included in price of goods
<b>ITB 11.4</b>	The price shall be fixed during the contract period.
<b>ITB 12.1</b>	The bid currency shall be <b>Pakistani Rupees</b> only.

<b>Preparation and Submission of Bids</b>			
<b>ITB 13.3 (d)</b>		Qualification requirements	
<b>S#</b>	<b>Qualification Criteria (Mandatory Requirements)</b>	<b>Yes</b>	<b>No</b>
1.	Compliance with the Technical Specifications.		
2.	Technical Proposal on Bidder's Letterhead		
3.	Catalogue / Brochures / technical data sheet (having complete technical specifications of the offered good)		
4.	Item-wise / Feature-wise product compliance / deviation sheet / statement.		
5.	Valid Manufacturer Authorization in accordance with ITB Clause 13.3(a)		
6.	Copy of CNIC of signatory of the Bid Forms		
7.	Complete Bidding Document, duly signed and stamped on its each/ every page as acceptance of all terms & conditions		
8.	Compliance to bid validity period		
9.	Compliance to payment terms and conditions		
10.	Compliance to the delivery schedule		
11.	Valid General Sales Tax (GST-FBR) Registration with Active Tax Payer Status on FBR website.		
12.	Valid Income Tax (FBR) Registration with Active Tax Payer Status on FBR website		
13.	Professional Tax Certificate		
14.	Original Tender Purchase Receipt / Pay Order of Tender Fee		
15.	Affidavit on stamp paper of Rs. 100/- duly notarized to the effect that: <b>i.</b> The bidder is neither blacklisted nor suspended by any National/International, including Provincial and Federal Govt. <b>ii.</b> Any director or owner of the bidding company is not awarded any punishment from any Court of Law. <b>iii.</b> Bidder has submitted the correct and complete information along with the bid/offer. If any document / information is found forged / engineered / fake / bogus at any stage, the bidder may be declared as Blacklisted in accordance with law and the performance guarantee and payment, if any may be forfeited.		
16.	The Bid Form on Bidder's Letterhead duly signed and stamped shall be inserted in the Financial Proposal. However, a copy of the same shall be attached in the Technical Proposal after hiding the amount.		
17.	The Price Schedule(s) on Bidder's Letterhead duly signed and stamped shall be inserted in the Financial Proposal. However, a copy of the same shall be attached in the Technical Proposal after hiding the amount.		
18.	Bid Security shall be inserted in the Financial Proposal. However, a copy of the same shall be inserted in the Technical Proposal after hiding the amount.		
19.	Company Profile		

<b>ITB 15.1</b>	Amount of bid security <b>shall not be less than 2% of the total bid price</b> of the bidder in the form of a Call Deposit, Bank Draft or a Bank Guarantee issued by a scheduled bank of Pakistan, in favour of the Dow University of Health Sciences, Karachi.
<b>ITB 16.1</b>	Bid validity period shall be <b><u>90 days</u></b>
<b>ITB 17.1</b>	<b>The Bidder shall submit an original and one copy of the bid in separate sealed envelopes, clearly marking each “ORIGINAL BID” and “COPY OF BID,” as appropriate.</b>
<b>ITB 18.2 (a)</b>	Dow University of Health Sciences (Ojha Campus), SUPARCO Road, off Main University Road, Gulzar-e-Hijri, Scheme No. 33, Karachi.
<b>ITB 18.2 (b)</b>	<p><b>Name of Project/Scheme/Department /Institute:</b> Procurement of High-Performance Compute &amp; Storage, Computer Systems, Laptops, Printers, UPS, Network Hardware and Miscellaneous ICT Items at Dow University of Health Sciences, Karachi</p> <p><b>IFB/NIT Title:</b> Procurement of High-Performance Compute &amp; Storage, Computer Systems, Laptops, Printers, UPS, Network Hardware and Miscellaneous ICT Items at Dow University of Health Sciences, Karachi</p> <p>NIT No: DUHS/DP/2023/248-249 Dated 11 October 2023</p> <p>“Must bear the name of the bidder” and a warning “Do Not Opened Before the time and date of bid opening”</p>
<b>ITB 19.1</b>	Deadline for bid submission: <b>Date: 23<sup>rd</sup> November 2023</b> <b>Time: upto 12:00 Noon.</b>
<b>ITB 22.1</b>	Date, Time and Place of Bid opening <b>Date: 23<sup>rd</sup> November 2023</b> <b>Time: 12:30 P.M.</b> <b>Place:</b> Dow University of Health Sciences (Ojha Campus), Procurement Directorate at Library Block, SUPARCO Road, off Main University Road, Gulzar-e-Hijri, Scheme No. 33, Karachi.

<b>Bid Evaluation</b>	
<b>ITB 25.4</b>	Criteria for bid evaluation.

**i. Technical Bids / Proposals Evaluation:**

- a. The bids not responsive to the MANDATORY QUALIFICATION CRITERIA provided at ITB Clause 13.3(d) shall not be eligible for further Technical Evaluation.
- b. JV's / Consortium's Bids, Conditional Bids, Telegraphic Bids, Bids not accompanied by Bid Security of required amount and form, bids received after specific date and time and bids of Black Listed firms shall be treated as rejected / non-responsive.
- c. If a bidder elects to submit alternative bid without enclosing a separate Bid Security of requisite amount and form, Bid Form and valid Manufacturer Authorization, all such alternative bids will be rejected as nonresponsive.
- d. The bids shall be evaluated and compared on **COMPLETELY ON LOT BASIS** exclusively. Bids for partial / limited item(s) shall not be considered and will be rejected.
- e. **Bids are invited as per Single Stage – Two Envelope Procedure** in accordance with sub rule 2 of rule 46 of the Sindh Public Procurement Rules, 2010 (Amended 2019). In case, any bidder encloses the financial bid within the technical bid, the same shall be rejected summarily.
- f. The following merit point system for weighing evaluation factors / criteria will be applied for technical proposals.
- g. Bidders achieving **minimum 70% points / marks** will be considered only for further process besides compliance of all mandatory clauses. Documentary evidence must be attached in support of your claim.

**EVALUATION CRITERIA FOR LOT# 1**  
**HIGH PERFORMANCE COMPUTE SERVER & STORAGE HARDWARE**

S#	CRITERIA / PARAMETERS / SUB-PARAMETERS	Total Marks
<b>1</b>	<b>Year Establishment</b> <i>(Credible documentary evidence must be provided)</i>	<b>10</b>
1.1	Established during 2013 or early	10
1.2	Established during 2014-2017	05
1.3	Established during 2018-2023	02
<b>2.</b>	<b>Bidder's Networking Setup across the Pakistan</b> <i>(Credible documentary evidence must be provided)</i>	<b>10</b>
2.1	Head Office with 3 or more regional offices	10
2.2	Head Office with 2 regional offices	07
2.3	Head Office with 1 regional offices	03
<b>3.</b>	<b>Original Equipment Manufacturer (OEM) presence in Pakistan</b>	<b>10</b>
3.1	10 years or more	10
3.2	07 years or more	07
3.3	04 years or more	04
<b>4.</b>	<b>Technical Staff</b> <i>(Credible documentary evidence must be provided)</i>	<b>20</b>
4.1	OEM Certified Resource (04 Marks for each Resource)	08
4.2	Certified Project Management Professional (PMP) (04 Marks for each Professional)	04
4.3	On-Site Direct OEM Technical Engineer Availability (04 marks for each resource)	08
<b>5.</b>	<b>Client's Satisfactory Performance Certificate issued during the last 5 years by any Public Sector Organization OR Private Sector organization registered with SECP. (Please provide satisfactory performance letter / certificate)</b>	<b>10</b>
5.1	10 or Above Clients	10
5.2	07 or Above Clients	06
5.3	04 or Above Clients	03
5.5	02 or Above Clients	02
<b>6.</b>	<b>Past Experience / Performance in Public or Private Sector Organizations.</b> (Documentary evidence in the shape of Contract Award / Purchase Order AND Satisfactory performance certificate / Delivery Challan / Goods Receiving Note / LC or any other relevant Document)	<b>25</b>
6.1	Principal's past experience for providing the Quoted Solution have HCI Deployments across Pakistan with the required components i.e. Compute Virtualization, Storage Virtualization and Network virtualization (5 Marks for each project / deployment) (upto max. 25 Marks)	25
6.2	Bidder's experience for deployment of Medium Scale I.T. Project having the value of Rs. 10 million or more (This should be other than experience claimed against evaluation criteria mentioned at Sr. No. 6.1) (4 Marks for each Project upto max. 08 Marks)	08
6.3	Bidder's experience for deployment of Medium Scale I.T. Project having the value of Rs. 5 million or more (This should be other than experience claimed against evaluation criteria mentioned at Sr. No. 6.1 & 6.2) (2 Marks for each Project upto max. 04 Marks)	04
<b>7.</b>	<b>Average Annual Turnover (Total Income) during last three (03) financial years (Income Tax Return Forms must be attached as supporting documents)</b>	<b>15</b>
7.1	Above PKR 50 million	15
7.2	Above PKR 25 million	10
7.3	Above PKR 10 million	05
7.4	Below PKR 10 million	00
<b>GRAND TOTAL</b>		<b>100</b>



**EVALUATION CRITERIA LOT# 2 & 5**  
**COMPUTERS SYSTEMS AND LAPTOPS**

S#	CRITERIA / PARAMETERS / SUB-PARAMETERS	Total Marks
<b>1</b>	<b>Year Establishment</b> (Credible documentary evidence must be provided)	<b>10</b>
1.1	Established during 2013 or early	10
1.2	Established during 2014-2017	05
1.3	Established during 2018-2023	02
<b>2</b>	<b>Product Certification</b> (Credible documentary evidence must be provided)	<b>10</b>
2.1	CE or ISO or any other international certification relevant to the required goods	10
<b>3.</b>	<b>Manufacturer Authorization / Partnership Certification</b> (Credible documentary evidence must be provided)	<b>15</b>
3.1	Tier-1 / Platinum / AAA Partner / Manufacturer or their authorized bidder	15
3.2	Tier-2 / Gold / AA Partner	10
3.3	Tier-3 / Silver / A Partner	05
<b>4.</b>	<b>Technical Staff for Support and Maintenance</b> (Credible documentary evidence must be provided)	<b>15</b>
4.1	7 or more OEM Certified Graduates in Electronics/I.T/BCS/Telecom	15
4.2	5 or more OEM Certified Graduates in Electronics/I.T/BCS/Telecom	10
4.3	3 or more OEM Certified Graduates in Electronics/I.T/BCS/Telecom	05
<b>5.</b>	<b>Bidder's Networking Setup across the Pakistan</b> (Credible documentary evidence must be provided)	<b>10</b>
5.1	Head Office with 6 or more regional offices	10
5.2	Head Office with 4 regional offices	08
5.3	Head Office with 2 regional offices	04
<b>6.</b>	<b>Prior Experience / Performance during last 5 years</b> Documentary evidence in the shape of Contract Award / Purchase Order <b>AND</b> Delivery Challan / Goods Receiving Note / LC Documents / Satisfactory performance certificate.	<b>20</b>
6.1	Past experience for supplying the minimum 100 units of i3 / i5 or better computers / laptops against single Contract Award / Purchase Order to any <b>Public Or Private Sector Organization.</b> (10 marks for each Contract Award / Purchase Order)	20
<b>7.</b>	<b>Average Annual Turnover (Total Income) during last three (03) financial years</b> (Audited Statements of Accounts and Income Tax Return Forms must be attached as supporting documents)	<b>20</b>
7.1	Above PKR 50 million	20
7.2	Above PKR 30 million	12
7.3	Above PKR 20 million	08
7.4	Below PKR 20 million	00
<b>GRAND TOTAL (A + B)</b>		<b>100</b>

**EVALUATION CRITERIA FOR LOT NO. 03**  
**NETWORK HARDWARE**

S#	CRITERIA / PARAMETERS / SUB-PARAMETERS	Total Marks
<b>1</b>	<b>Year Establishment</b> (Credible documentary evidence must be provided)	<b>10</b>
1.1	Established during 2013 or early	10
1.2	Established during 2014-2017	05
1.3	Established during 2018-2023	02
<b>2.</b>	<b>Bidder's Networking Setup across the Pakistan</b> (Credible documentary evidence must be provided)	<b>10</b>
2.1	Head Office with 3 or more regional offices	10
2.2	Head Office with 2 regional offices	07
2.3	Head Office with 1 regional offices	03
<b>3.</b>	<b>Manufacturer Authorization / Partnership Certification</b> (Credible documentary evidence must be provided)	<b>15</b>
3.1	Tier-1 / Platinum / AAA Partner / Manufacturer or their authorized bidder	15
3.2	Tier-2 / Gold / AA Partner	10
<b>4.</b>	<b>Technical Staff</b> (Credible documentary evidence must be provided)	<b>15</b>
4.1	OEM / OSM Certified Resource (05 Marks for each Resource)	10
4.2	Certified Project Management Professional (PMP) (05 Marks for each Professional)	05
<b>5.</b>	<b>Client's Satisfactory Performance Certificate issued during the last 5 years by any Public Sector Organization OR Private Sector organization registered with SECP. (Please provide satisfactory performance letter / certificate)</b>	<b>10</b>
5.1	10 or Above Clients	10
5.2	07 or Above Clients	07
5.3	04 or Above Clients	04
<b>6.</b>	<b>Prior Experience / Performance during last 5 years</b> Documentary evidence in the shape of Contract Award / Purchase Order <b>AND</b> Delivery Challan / Goods Receiving Note / LC Documents / Satisfactory performance certificate	<b>20</b>
6.1	Principal's past experience for providing the similar Quoted Products in Pakistan (5 Marks for each project / deployment upto max. 25 Marks)	20
6.2	Bidder's experience for deployment of Medium Scale I.T. Project having the value of Rs. 10 million or more (This should be other than experience claimed against evaluation criteria mentioned at Sr. No. 6.1) (4 Marks for each Project upto max. 12 Marks)	12
6.3	Bidder's experience for deployment of Medium Scale I.T. Project having the value of Rs. 5 million or more (This should be other than experience claimed against evaluation criteria mentioned at Sr. No. 6.1 & 6.2) (2 Marks for each Project upto max. 10 Marks)	10
<b>7.</b>	<b>Average Annual Turnover (Total Income) during last three (03) financial years</b> (Audited Statements of Accounts and Income Tax Return Forms must be attached as supporting documents)	<b>20</b>
7.1	Above PKR 50 million	20
7.2	Above PKR 30 million	12
7.3	Above PKR 20 million	08
<b>GRAND TOTAL (A + B)</b>		<b>100</b>

**EVALUATION CRITERIA FOR LOT NO. 04**  
**MISCELLANEOUS ICT ITEMS**

S#	CRITERIA / PARAMETERS / SUB-PARAMETERS	Total Marks
<b>1</b>	<b>Year Establishment</b> <i>(Credible documentary evidence must be provided)</i>	<b>Max. 20</b>
1.1	Established during 2013 or early	20
1.2	Established during 2014-2017	15
1.3	Established during 2018-2023	10
<b>2.</b>	<b>Bidder's Networking Setup across the Pakistan</b> <i>(Credible documentary evidence must be provided)</i>	<b>Max. 10</b>
2.1	Head Office with 2 regional offices	10
2.2	Head Office with 1 regional offices	07
<b>3.</b>	<b>Technical Staff</b> <i>(Credible documentary evidence must be provided)</i>	<b>Max. 20</b>
3.1	Technology Certified Resources (5 Marks for each Resource)	20
<b>4.</b>	<b>Client's Satisfactory Performance Certificate issued during the last 5 years by any Public Sector Organization OR Private Sector organization registered with SECP. (Please provide satisfactory performance letter / certificate)</b>	<b>Max. 10</b>
4.1	15 or Above Clients	10
4.2	12 or Above Clients	06
4.3	08 or Above Clients	03
4.5	05 or Above Clients	02
<b>5.</b>	<b>Past Experience / Performance in Public or Private Sector Organizations.</b> (Documentary evidence in the shape of Contract Award / Purchase Order AND Satisfactory performance certificate / Delivery Challan / Goods Receiving Note / LC or any other relevant Document)	<b>Max. 25</b>
5.1	Bidder's experience for deployment of Big Scale I.T. Project having the value of Rs. 10 million or more <i>(5 Marks for each Project)</i>	25
5.2	Bidder's experience for deployment of Medium Scale I.T. Project having the value of Rs. 5 million or more (This should be other than above claimed experience of similar nature project) <i>(3 Mark for each Project)</i>	12
<b>6.</b>	<b>Average Annual Turnover (Total Income) during last three (03) financial years (Income Tax Return Forms must be attached as supporting documents)</b>	<b>Max. 15</b>
6.1	Above PKR 50 million	15
6.2	Above PKR 30 million	10
6.3	Above PKR 20 million	05
<b>GRAND TOTAL</b>		<b>100</b>

**ii. Financial Bids / Proposal Evaluation:**

- a) Technically qualified/successful bidder(s) shall be eligible for Financial Proposal(s). The Financial bids shall be opened in the presence of the Bidders at the scheduled date, time and venue communicated in advance.
- b) Only those Financial Proposals will be announced / considered which were technically qualified by the Committee. Therefore, bidders are advised to give separate sealed envelope (s) of every quoted item / Lot and should mention the name of the item and tender serial number on the front of the sealed envelope in **BOLD and legible letters** to avoid confusion, otherwise, the Financial Proposal Envelope will be opened on qualified item basis and it will not be challenged by the bidder that procuring agency has opened the Financial Proposal of the disqualified items besides qualified items.
- c) Financial Bids / Proposals of Technically disqualified / rejected bidders will not be opened and sealed envelope shall be returned to the bidder.
- d) Bids not accompanied by the Bid Security of required amount and form shall be rejected.
- e) Procuring Agency shall not be responsible for any erroneous calculation of taxes and all differences arising out shall be fully borne by the Successful Bidder.
- f) For the purpose of comparison of bids quoted in different currencies, price shall be converted into Pakistani Rupees. The rate of exchange shall be the selling rate prevailing seven working days before the date of opening of the bids, as notified by the National Bank of Pakistan (NBP) / State Bank of Pakistan (SBP).

<b>Contract Award</b>	
<b>ITB 29.1</b>	Procuring Agency reserves the right to drop any item and increase or decrease the quantity of goods originally specified in Schedule of Requirements / Technical Specifications without any change in unit price and other terms & conditions
<b>ITM 32.1</b>	Successful Bidder and the Procuring Agency will sign the Contract Agreement on the stamp paper with stamp duties as per the article 22-A (Contract) of the schedule of Stamp Act 1899. The expenditure involved on the said contract agreement will be borne by the bidder.

**Section III.**  
**Special Conditions of Contract**

## Table of Clauses

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## Special Conditions of Contract

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

### 1. Definitions (GCC Clause 1)

GCC 1.1 (g)—The Procuring agency is: Dow University of Health Sciences, Karachi.

GCC 1.1 (h)—The Procuring agency's country is: Islamic Republic of Pakistan

GCC 1.1 (i)—The Supplier is: \_\_\_\_\_

[Name and Address of the Bidder]

### 2. Country of Origin (GCC Clause 3)

All countries and territories as indicated in Part Two Section VI of the bidding documents, "Eligibility for the Provisions of Goods, Works, and Services in Government-Financed Procurement".

### 3. Technical Specifications (GCC Clause 4)

The technical specifications of the goods provided in these bidding document are only for widest possible competition and not for favor any single contractor or supplier nor put others at a disadvantage. However, the brand name, catalogue No. / Name etc., if any, has only been used for the reference purpose. Equipment offered **"ATLEAST EQUIVALENT OR HAVING BETTER TECHNICAL SPECIFICATIONS"** shall also be considered.

### 4. Performance Security (GCC Clause 7)

GCC 7.1—The amount of performance security, as a percentage of the Contract Price, shall be Five (05%) percent of the Contract Price in favor of Dow University of Health Sciences, Karachi.

### 5. Packing (GCC Clause 9)

GCC 9.2—The following SCC shall supplement GCC Clause 9.2:

The packing, marking and documentation within and outside the packages shall be as per manufacturer standards meeting the safety requirements of the goods.

### 6. Delivery and Documents (GCC Clause 10)

GCC 10.2—*For Goods supplied from within the Procuring Agency's country:* The Bidder shall provide the following documents at the time of delivery of goods to the Store / Warehouse of the Dow University of Health Sciences, Karachi for verification duly completed in all respects:

- i. Original copies of Delivery Note (Delivery Challan) (in duplicate) showing item's description, make, model, quantity as well as Lot Number, Batch Number, Registration Number, manufacturing and expiry dates (if applicable).
- ii. Original copies of the Bidder's invoices (in duplicate) showing warranty, item's description, make, model as well as Lot Number, Batch Number, Registration Number, manufacturing and expiry dates (if applicable) per unit cost, and total amount.
- iii. Original copies of the Sales Tax Invoices (where applicable) in duplicate showing item's description, quantity, per unit cost without Sales Tax, amount of Sales Tax and total amount with Sales Tax.
- iv. Manufacturer's or Bidder's warranty certificate.

- v. Inspection certificate issued by the nominated inspection committee / Bidder's factory inspection report.
- vi. Certificate of origin.

**GCC 10.2—*For Goods supplied from abroad as per INCOTERM CFR / CNF/ C&F / CPT Karachi:*** Upon shipment, the Supplier shall notify the Procuring agency the full details of the shipment, including Contract number, description of Goods, quantity and usual transport document. The Supplier shall mail / submit the following documents to the Procuring agency at least one week prior to arrival of the Goods at the port or place of arrival and, if not received, the Bidder will be responsible for any consequent expenses.:

- (i) copies of the Supplier's invoice showing Goods' description, quantity, unit price, and total amount;
- (ii) original and two copies of the usual transport document (for example, a negotiable bill of lading, a non-negotiable sea waybill, an inland waterway document, an air waybill, a railway consignment note, a road consignment note, or a multimodal transport document) which the buyer may require to take the goods;
- (iii) copies of the packing list identifying contents of each package;
- (iv) insurance certificate;
- (v) Manufacturer's or Supplier's warranty certificate;
- (vi) inspection certificate, issued by the nominated inspection agency, and the Supplier's factory inspection report; and
- (vii) certificate of origin.

**7. Insurance (GCC Clause 11)**

**GCC 11.1— *For Goods supplied from within the Procuring Agency's country:*** The Goods supplied under the Contract shall be delivered duty paid (DDP) under which risk is transferred to the buyer after having been delivered, hence insurance coverage is seller's responsibility. Since the Insurance is seller's responsibility they may arrange appropriate coverage.

**GCC 11.1— *For Goods supplied from abroad as per INCOTERM CFR / CNF/ C&F / CPT Karachi:*** The Goods supplied under the Contract shall be *INCOTERM CFR / CNF/ C&F / CPT Karachi* under which risk is transferred to the buyer after the goods reached at Karachi port, hence insurance coverage / marine cover note is seller's responsibility. Since the Insurance / marine cover is seller's responsibility they may arrange appropriate coverage.

**8. Spare Parts (GCC Clause 14)**

**GCC 14.1—**Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods. Other spare parts and components shall be supplied as promptly as possible, but in any case within one (1) months of placing the order on DDP basis and in case of import of part within two (2) months after opening the letter of credit.

**9. Warranty (GCC Clause 15)**

**GCC 15.2—**In partial modification of the provisions, the warranty period shall be twelve (12) months or as per the extended warranty period from the date of acceptance of the Goods. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the Contract. If, for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall, at its discretion, either:

- (a) make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified



in the Contract at its own cost and expense and to carry out further performance tests in accordance with GCC 8,

**or**

- (b) pay liquidated damages to the Procuring agency with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be 0.5% per week or part thereof the total amount of contract.

GCC 15.4 & 15.5—The period for correction of defects in the warranty period is 20 days or earlier.

#### **10. Payment (GCC Clause 16)**

GCC 16.1—The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:

*i. For Goods supplied from within the Procuring Agency's country:*

- (a) Payment shall be made in Pak Rupees.
- (b) 100% of the Contract Price on complete delivery of store within thirty (30) days on submission of claim supported by acceptance certificate from procuring agency declaring Goods have been delivered and that all contracted services have been performed.
- (c) Part payment on part supply may be allowed

**OR**

*ii. For Goods supplied from outside the Procuring Agency's country:*

- (a) Payment shall be made in Foreign Currency.
- (b) The Procuring Agency shall pay the Bidder or its Principal through irrevocable letter of credit opened in favor of the Bidder or its Principal in a bank in its country, upon submission of all the requisite documents.
- (c) Bidder will bear the insurance charges and all the additional bank charges inside and outside the Procuring Agency country on account of confirmation of L/C, if he desires to establish a confirmed L/C etc.

#### **11. Prices (GCC Clause 17)**

GCC 17.1—No prices adjustment shall be allowed.

#### **12. Liquidated Damages (GCC Clause 23)**

GCC 23.1—In case deliveries are not completed within the time frame specified in the schedule of requirements / contract award, a Show Cause Notice will be served on the Bidder which will be following by cancellation of the Contract to the extent of non-delivered portion of installments. No supplies will be accepted and the amount of Performance Guarantee / Security to the extent of non-delivered portion of supplies of relevant installments will be forfeited. If the firm fails to supply the whole installments, the entire amount of Performance Guarantee/Security will be forfeited to the Government Account and the firm will be blacklisted at least for two years for future participation in bids:

The liquidated damage shall be 0.5 % per week or part thereof. The maximum amount of liquidated damages shall be 10% of the amount of contract. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of the contract, the Procuring Agency shall rescind the contract, without prejudice to other courses of action and remedies open to it.

#### **13. Resolution of Disputes (GCC Clause 28)**

GCC 28.1—The dispute resolution mechanism to be applied pursuant to GCC Clause 28.2 shall be as follows:

In the case of a dispute between the Procuring agency and the Supplier, the dispute

shall be referred to the dispute resolution mechanism as defined in rule 31, 32 and 34 of the SPP Rules, 2010 (Amended 2019).

**14. Governing Language (GCC Clause 29)**

GCC 29.1—The Governing Language shall be ENGLISH

**15. Applicable Law (GCC Clause 30)**

GCC 30.1—The Contract shall be interpreted in accordance with the laws of Islamic Republic of Pakistan which includes the following legislation:

**The Employment of Children (ECA) Act 1991  
The Bonded Labour System (Abolition) Act of  
1992 The Factories Act 1934**

**16. Notices (GCC Clause 31)**

GCC 31.1—*Procuring agency's address for notice purposes:*

Director Procurement  
Dow University of Health Sciences (Ojha Campus)  
Procurement Directorate at Library Block,  
SUPARCO Road, off Main University Road,  
Gulzar-e-Hijri, Scheme No. 33, Karachi.  
Phone No. + 92-21-99261497  
Email: director.procurement@duhs.edu.pk

***Supplier's address for notice purposes:***

Name of Bidder: \_\_\_\_\_

Name of Contact Person & Designation: \_\_\_\_\_

Phone No. \_\_\_\_\_

Fax No. \_\_\_\_\_

Mobile Phone No. \_\_\_\_\_

Email Address \_\_\_\_\_

**Section IV.**  
**Schedule of Requirements**

## Schedule of Requirements

Lot No.	Description of Goods	Required Quantity	Required Delivery Schedule	Location
01.	As per the details of items attached in <b>Section V – Technical Specifications</b>		Delivery & Installation within 12 weeks or earlier from the Date of Contact Awarded	Campuses of Dow University of Health Sciences, Karachi (DUHS)

**Section V.**  
**Technical Specifications**

# Technical Specifications

## For LOT# 1

### Item No 1.1: High Performance Compute Server & Storage Hardware

<b>ITEM No 1.1.1</b>	<b>Server Hardware (DELL/HP or Equivalent)</b>	<b>Qty. 06 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Must be 2U rack mount		
2	Chassis should have minimum 12 HDD support		
3	System should be capable enough to support 2 CPU		
4	2 x Intel® Xeon® Platinum 8358 2.6G, 32C/64T, 11.2GT/s, 48M Cache, Turbo, HT (250W) DDR4-3200 or Equivalent/Higher		
5	Heatsink for 2 CPU configuration		
6	16 x 64GB RDIMM, 3200MT/s, Dual Rank		
7	1 x 400GB (or higher) Optane NVMe cache drive		
8	1 x 1.92TB SSD SAS Mix Use 12Gbps 512e 2.5in Hot-plug AG Drive, 3 DWPD		
9	Enterprise level management software		
10	2 x Redundant dual port 25Gb network cards (with compatible SFPs)		
11	1 x Dual Port 16Gb Fiber Channel HBA (with compatible SFPs)		
12	No Operating System		
13	1 X BOSS Card (Dual 480GB M.2, Raid 1)		
14	3 x 3.84TB SSD Mix-use disks, 12Gbps 512e 2.5in Hot-Plug ,AG Drive SED, 3DWPD		
15	Dual power supply		
16	2 x C13/C14 type 3Meter power cords		
17	Rack Mount Kit		
18	3 Years Warranty & Support services		

<b>ITEM No 1.1.2</b>	<b>Storage Hardware</b>	<b>Qty. 02 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Must be 2U rack mount		
2	Chassis should have minimum 24 x 2.5” HDD support		
3	System must support 10/25Gb iSCSI dual active/active controller		
4	12 x 2.4TB 10K RPM SAS 12Gbps 512e 2.5in Hot-plug Drive		
5	Enterprise level management software		
6	2 x Redundant dual port 25Gb network cards (with compatible SFPs)		
7	Dual power supply		
8	2 x C13/C14 type 3Meter power cords		
9	Rack Mount Kit		
10	3 Years Warranty & Support services		

## Item No 1.2: HCI Software with License

<b>ITEM NO. 1.2.1</b>	<b>Virtualization Management Software</b>	<b>Qty. 02 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1.	Must Include High Availability Redundancy for Virtualization Management Platform		
2.	Must Include Management for Existing workload Virtual Machines		
3.	Must Include Role-Based Management with Permission Control		
4.	Must Include HTML5 Web Management		
5.	Must Include Centralized Control & Visibility		
6.	Must Include Future Scale Out Up to 64 Nodes.		
7.	Must also allow growth and scale for compute and storage resources.		
8.	Must incorporate performance, capacity, and health monitoring capability within the vendor's support cloud.		
9.	Must be built on the proven technologies that is optimized for new users as well as for experienced administrators.		
10.	The Virtualization product must be tightly integrated with SDDC Manager to coordinate lifecycle management of hardware components Firmware. Such as server BIOS, Disk, Raid Controller, NIC, Expander Backplane & Remote Management.		
11.	The Virtualization product MUST NOT run any sort of software layered on top of hypervisor (Hypervisor emulation will not allowed).		
12.	Should support distributed RAID per CPU.		
13.	Must be based on proven virtualization technology leveraging both software defined compute and storage. Must be designed with h/w & s/w to deliver proven 99.9999% availability		
14.	Proactive two-way remote support connection that is secure, high speed, and operates 24x7x365		
15.	Mission Critical Warranty & Support services for 3-Years.		
16.	Quoted Product must be Listed in 2021 or 2022 Gartner Magic Quadrant for Hyper-Converged Infrastructure Software		
17.	Should support SSO for user management with logs of every management instance & with ability to send out the log entries in real time using standard protocols (Syslog etc for integration with enterprise management applications).		
18.	Must support over SSO integration with LDAP/AD enabling role - based management for complete lifecycle management.		
19.	Must support STIG, CCA & FIPS 140 compliance standards.		
20.	Must be supporting NVMe all-flash storage over fabric.		

<b>ITEM NO. 1.2.2</b>	<b>Compute Virtualization Hypervisor License</b>	<b>Qty. 12 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Must Include High Availability Between Nodes		
2	Must Include VM Snapshot, VM Clone, VM vMotion		
3	Must Include VM Resources Hot-Add		
4	Must Include Distributed Resource Scheduler (DRS)		
5	Must Include Distributed Switch Using Cluster-Level Network Agg		
6	Must Include Hardware Health Check to Monitor CPU, Memory, Network Interface Card, Hard Drive and RAID Controller		
7	Must support Automated restart of failed virtual machines and complete tolerance to failover for Critical applications without a packet drop		

<b>ITEM NO. 1.2.3</b>	<b>Storage Virtualization</b>	<b>Qty. 12 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Must Be the Same Vendor as Compute Hypervisor		
2	Must Include 2 Copies & 3 Copies Data Redundancy		
3	Must Include Data Striping Technology		
4	Must Include Data-At-Rest Encryption for VM Data		
5	Must Include Cache & Data Tiering		
6	Must Include Data Disk Balancing & Data Rebuilding		
7	Must be available to control each virtual disk with different policies. Solution must support software defined storage distributed data store to provide consistent and resilient fault tolerance scale-up storage.		
8	Must support external shared storage (FC & iSCSI/IP) to store & run workload VMs, along with other metadata.		
9	<p><b>Must Support Node Addition:</b></p> <ul style="list-style-type: none"> <li>• Ability to easily add new nodes to the HCI cluster without disrupting existing operations.</li> <li>• Automated node discovery and configuration for simplified expansion.</li> <li>• Scalability to accommodate a growing number of nodes.</li> <li>• Efficient resource allocation and load balancing across the cluster.</li> </ul>		
10	<p><b>Must Support Node Subtraction:</b></p> <ul style="list-style-type: none"> <li>• Capability to remove nodes from the HCI cluster without service interruption.</li> <li>• Controlled node removal process to ensure data integrity and system stability.</li> <li>• Transparent data migration and redistribution when removing nodes.</li> <li>• Reallocation of resources for optimal performance and efficiency.</li> </ul>		

<b>ITEM NO. 1.2.4</b>	<b>Network Virtualization</b>	<b>Qty. 12 Nos</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Must Be the Same Vendor as Compute Hypervisor		
2	Must Include to Display Whole Data Center Network Topology		
3	Must Include Network L2 Bridging to Physical Environments		
4	Must Include Distributed Routing & Distributed Switching		
5	Must Include Micro-Segmentation		
6	Must Include Display Network Traffic Flow in Real-Time		
7	Must Include Network Visualization with Topology overview		

<b>ITEM NO. 1.2.5</b>	<b>VM Backup Solution</b>	<b>Qty. 1 No.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Must Be Fully Compatible with Compute Hypervisor		
2	Must Include Full VM Level Backup		
3	Must Include to Backup VMs in All Hardware Nodes		
4	Must Include Incremental Backup & Differential Backup Technology		
5	Must Include Automated Schedule Backup (Weekly, Daily, Hourly)		
6	Must Include Backup Repository to Internal Virtual Storage		
7	Must Include Backup Repository to External SAN Storage		



<b>ITEM NO. 1.2.6</b>	<b>File-Based Backup Solution (20 or more VMs)</b>	<b>Qty. 1 No.</b>
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<b>S#</b>	<b>Name of Goods, Technical Description, Specifications and Standards</b>	<b>Response (Y/N)</b>	<b>Deviation (if any)</b>
1	Must Be Fully Compatible with Compute Hypervisor		
2	Must Include Full Application-Level Backup		
3	Must Include to Backup Applications in All Hardware Nodes		
4	Must Include Incremental Backup & Differential Backup Technology		
5	Must Include Automated Schedule Backup (Weekly, Daily, Hourly)		
6	Must Include Backup Repository to Internal Virtual Storage		
7	Must Include Backup Repository to External SAN Storage		
8	Must provide ability to set & automatic backup, restore, deduplicate for Microsoft SQL, Windows, Linux filesystems and VMs.		

<b>ITEM NO. 1.2.7</b>	<b>VM DISASTER RECOVERY SOLUTION (30 or more VMs)</b>	<b>Qty. 1 No.</b>
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<b>S#</b>	<b>Name of Goods, Technical Description, Specifications and Standards</b>	<b>Response (Y/N)</b>	<b>Deviation (if any)</b>
1	Must be Fully Compatible with Compute Hypervisor		
2	Must Include Agentless Disaster Recovery Replication & protects Virtual Machines with VM level granularity.		
3	Must enables Continuous Data Protection for any Point-in-Time recovery to optimize RPO and RTO and having minimum RPO of 1 Sec Continuous Data Protection (CDP) Replication		
4	Must support local, remote and concurrent local and remote replication with continuous data protection for recovery to any Point in time		
5	Must Include Replication Traffic with Compression Technology & hence reduces WAN bandwidth consumption and utilize available bandwidth optimally		
6	Must Include Planned Data Center Migration		
7	Must Include Data Center Failback		
8	Offers multi-site support with up to 4:1 fan-in for centralized DR site protecting multiple branch offices and 1:4 fan-out replication for development and test operations.		
9	Must support Synchronous replication (local & remote), data protection (backup & recovery), and advanced disaster recovery capabilities.		
10	Must be a Proven Technology that provides Business Continuity		

### Item No 1.3: TOR Network Switches

<b>ITEM NO. 1.3.1</b>	<b>Network Switches</b>	<b>Qty. 04 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	24x10/25GbE SFP/SFP28, 2x25/100GbE SFP28/QSFP28 Ports or higher		
2	Dual redundant AC Power Supply		
3	PSU to I/O Ports Panel (Rear-to-Front) airflow		
4	Must support wire-speed throughput for each port.		
5	Must have Switching Capacity: 1 Tbps (full duplex) or higher		
6	Must have Throughput: 700mpps or higher		
7	Must have Virtualization technology where 2 chassis can be logical group in single domain providing multi-chassis LAG capability		
8	3 Meter Power cord C13/14		
9	Must have advance features: SSHv2, TACAS+, SNMP-V3, OSPFv1 and OSPFv2.		
10	Support all the L2 and L3 standard protocols		
11	Operating system of switch Must have support to be integrated inside proposed virtualization management platform console		
12	Layer 3 or any other required license (if any)		
13	3-Years Next Business Day Warranty Support services		

<b>ITEM NO. 1.3.2</b>	<b>SFP28 Optical Fiber Modules (with Patch cords)</b>	<b>Qty. 48 Nos.</b>
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<b>ITEM NO. 1.3.3</b>	<b>QSFP28 Optical Fiber Modules (with Patch cords)</b>	<b>Qty. 08 Nos.</b>
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**MANDATORY TECHNICAL REQUIREMENTS  
(NON-COMPLIANCE TO ANY REQUIREMENT SHALL LEAD TO REJECTION OF BIDS)**

<b>S#</b>	<b>Name of Goods / Services / Requirement, Technical Description, Specifications and Standards</b>	<b>Response (Yes / No / Agreed / Not Agreed / Accepted / Not Accepted)</b>	<b>Deviation (If any)</b>
1.	Bidder must Quote 3 Years SNS with mission critical 24x7 Principal Technical support for all critical software and services issues, along with NBD onsite Advanced Hardware Replacement Services.		
2.	Quoted Product's OEM presence in Pakistan must be minimum 5-years.		
3.	Bidder must have Gold or higher Tier Partnership Level with proposed OEM.		
4.	DUHS at any stage, may decide to remove any item or modify a quantity of any item in above mentioned BoQ or even Cancel complete tender. Therefore, must quote prices for each and every COMPONENT individually.		
5.	Onsite Configuration & Installation, Operation, maintenance & managed services of all above-mentioned systems / solution will be the responsibility of the supplier for 3 years, without any additional cost.		
6.	DUHS IT team will be made part of deployment and integration of the software / hardware.		
7.	The end user licenses, end user warranties and end user contracting support services will be in the name of Customer i.e. Dow University of Health Sciences, for all the equipment and Software loaded on the equipment delivered during the course of the project.		
8.	Selected Bidder will be responsible for the supply, Installation, configuration integration, testing and commissioning of supplied equipment and components at DUHS designated sites as per requirement. At the time of installation and commissioning, selected Bidder must provide comprehensive documentation of Configuration and Manuals etc.		
9.	All bidders must quote complete solution, require commissioning the services completely & add/propose and quote separately any item which they deem necessary for proper functioning of the system.		
10.	Bidder Must Include Associate & Professional level Product Training with Certification For 3 Participants		
11.	Licenses of software required for the virtualization and configuration for the storage, Network & Backup systems should clearly mention <u>cost of each license</u> per processor / per server / per user, as the case may be.		
12.	The successful bidder will be responsible for complete end to end deployment of the solution & also responsible for any Services or Data Migration activity (if require) by arranging additional temporary hardware. The migration activity should be completed with full data integrity in minimum possible downtime. Exact scope of data to be migrated will be determined in consultation with the successful bidder and Application/Data owners.		
13.	The proposed solution must combine virtualization, compute, storage, management, and data protection with a single point of support for the hardware and software.		
14.	The solution must deliver resiliency, QoS and centralized management functionality.		
15.	One-click non-disruptive patches and upgrades including hardware and software without using secondary application or console		

S#	Name of Goods / Services / Requirement, Technical Description, Specifications and Standards	Response (Yes / No / Agreed / Not Agreed / Accepted / Not Accepted)	Deviation (If any)
16.	All quoted products must have a minimum useful operational life of 5-Years.		
17.	Bidder must also quote for additional years of extension of warranty & support services for Year#4 & Year#5, these services would be extended on yearly basis, after the expiry of initial 3-years of duration.		
18.	The quoted solution must be offering two equivalent clusters, each of 3-Nodes & providing minimum 14TB of useable All Flash storage capacity per cluster, without adding more disks than the mentioned requirement per Node/Server (i.e 3 x 3.84TB SSD disks). Required Storage Hardware capacity mustn't be included.		

### Item 1. 4: VDI Server Hardware (DELL/HP or Equivalent)

<b>ITEM: 4.1</b>	<b>Server</b>	<b>Qty. 2 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards
1	Must be 2U rack mount
2	Chassis should have minimum 12 HDD support
3	System should be capable enough to support 2 CPU
4	2 x Intel Xeon Silver 4314 2.4G, 16C/32T, 10.4GT/s, 24M Cache, Turbo, HT (with Heat Sinks)
5	8 x 64GB RAM DIMM Dual Rank
6	1 X BOSS Card (Dual 240GB M.2, Raid 1)
7	Enterprise level management software
8	2 x Redundant dual port 10/25Gb network cards (with compatible 25Gb SFPs)
9	No Operating System
10	4 x 1.2TB 10K RPM SAS 12Gbps 512n 2.5in Hot plug hard drive
11	Must have necessary RAID Controller for RAID-1 & RAID-5 Configurations & should support mix drives type.
12	Dual power supply
13	2 x C13/C14 type 3-meter power cords
14	Rack Mount Kit
15	3 Years Principal Direct NBD Warranty & Support

<b>ITEM: 4.2</b>	<b>Storage</b>	<b>Qty. 01 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards
1	Device must be rack mount
2	Must include Storage OS
3	Chassis should have minimum 12 x 3.5-inch HDD support for Data Disks
4	System must support 10/25Gb iSCSI dual active/active controller
5	Intel Xeon Processor or Equivalent specs (with complete accessories) – per controller
6	16GB Cache RAM – Per Controller
7	Enterprise level management software
8	Dual port 25Gb network cards (with compatible SFPs) – per controller
9	10 x 20TB 7.2K RPM NL-SAS 2Gbps 3.5in hard drive
10	RAID controller for Creating Raid-5 of 5 or more disks
11	Dual, Hot-plug, Redundant power supply
12	2 x C13/C14 type 3-meter power cords
13	Rack Mount Kit
14	3 Years Principal Direct NBD Warranty & Support

**MANDATORY TECHNICAL REQUIREMENTS  
(NONCOMPLIANCE SHALL LEAD TO REJECTION OF BIDS)**

S#	Name of Goods / Services / Requirement, Technical Description, Specifications and Standards	Response (Yes / No / Agreed / Not Agreed / Accepted / Not Accepted)	Deviation (If any)
1.	Bidder must Quote 3 Years SNS with 24x7 Principal Technical support & NBD Hardware Replacement Services.		
2.	Quoted Product's OEM presence in Pakistan must be minimum 5-years.		
3.	Bidder must have Gold or higher Tier Partnership Level with proposed OEM.		
4.	DUHS at any stage, may decide to remove any item or modify a quantity of any item in above mentioned BOQ. Therefore, must quote prices for each and every COMPONENT individually.		
5.	Onsite Configuration & Installation, Operation, maintenance & managed services of all above-mentioned systems / solution will be the responsibility of the supplier for 3 years, without any additional cost.		
6.	All active equipment should have three years comprehensive onsite warranty including parts, labor and Software, Upgrades/ License renewals and should be from direct Principal		
7.	DUHS IT team will be made part of deployment and integration of the software / hardware.		
8.	The end user licenses, end user warranties and end user contracting support services will be in the name of Customer i.e. Dow University of Health Sciences, for all the equipment and Software loaded on the equipment delivered during the course of the project.		
9.	Selected Bidder will be responsible for the supply, Installation, configuration integration, testing and commissioning of supplied equipment and components at DUHS designated sites as per requirement.		
10.	At the time of installation and commissioning, selected Bidder must provide comprehensive documentation of Configuration and Manuals etc.		
11.	Bidder must quote complete solution, require commissioning the services completely & add/propose and quote separately any item which they deem necessary for proper functioning of the system.		
12.	All quoted products must have a minimum useful operational life of 5-Years.		
13.	Bidder must also quote for additional years of extension of warranty & support services for Year#4 & Year#5, these services would be extended on yearly basis, after the expiry of initial 3-years of duration.		

**DESKTOP COMPUTER SYSTEMS WITH COMPLETE  
ACCESSORIES LOT# 2**

Item No.	Name of Goods, Technical Description, Specifications and Standards	Required Quantity
2.1.1.	<p><b><u>COMPUTERS CORE i5 MICRO FORM FACTOR WITH ACCESSORIES</u></b></p> <ul style="list-style-type: none"> <li>• HP, DELL or equivalent</li> <li>• Intel® Core™ i5-13500T (24 MB cache, 10 cores, 20 threads, 2.50 GHz to 4.60 GHz Turbo) 13<sup>th</sup> Generation</li> <li>• <b>Intel Q670 Chipset – V-Pro Capable</b></li> <li>• Memory: 16 GB RAM (8x2), upgradable to 64GB</li> <li>• Storage: 512 GB (SSD) internal Solid-State Drive</li> <li>• Optical Mouse</li> <li>• Black Wired Keyboard English</li> <li>• Dual band WiFi module plus built in Bluetooth.</li> <li>• 22” LED Monitor with Power Cord</li> <li>• With Free DOS</li> <li>• 03 Years onsite principal warranty through Distributor / Partner in the country.</li> </ul> <p><b><u>NOTE:</u></b></p> <ul style="list-style-type: none"> <li>• Equipment must be quoted with all the standard accessories (including power cables/adapters) and operational and repair manuals, required for the operation of the equipment.</li> </ul>	470 Units

**MANDATORY TECHNICAL REQUIREMENTS  
(NONCOMPLIANCE SHALL LEAD TO REJECTION OF BIDS)**

S#	Name of Goods / Services / Requirement, Technical Description, Specifications and Standards	Response (Yes / No / Agreed / Not Agreed / Accepted / Not Accepted)	Deviation (If any)
1.	Bidder must also include 3 Years On-site Warranty Support Services.		
2.	Quoted Product's OEM presence in Pakistan must be minimum 5-years.		
3.	Bidder must have Gold or higher Tier Partnership Level with proposed OEM.		
4.	DUHS at any stage, may decide to remove any item or modify a quantity of any item in above mentioned BOQ. Therefore, must quote prices for each and every COMPONENT individually.		
5.	All active equipment should have three years comprehensive onsite warranty including parts, labor and Software, Upgrades/ License renewals and should be from direct Principal		
6.	The end user licenses, end user warranties and end user contracting support services will be in the name of Customer i.e. Dow University of Health Sciences, for all the equipment.		
7.	Selected Bidder must provide comprehensive documentation of Configuration and Manuals etc.		
8.	Bidder must quote complete solution, require commissioning the services completely & add/propose and quote separately any item which they deem necessary for proper functioning of the system.		

### Lot No. 3: Network Hardware

<b>ITEM NO. 3.1.1</b>	<b>Network Switch (10G 24-Ports Distribution)</b>	<b>Qty. 06 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Minimum 24 x 1/10G SFP /SFP+ ports, 4 x QSFP28 ports		
2	Switching Capacity 1.5Tbps or higher		
3	Forwarding Performance 450 Mpps or Higher		
4	Stack should be supported via dedicated Stack port, otherwise add more 10GSFP+ (or higher speed) ports for Stack connectivity		
5	Must Support all the L2 and L3 standard protocols		
6	necessary Stacking cable with power (if any)		
7	Must Support Jumbo Frames		
8	Dual AC Input		
9	2 x 3-Meter power cord C13/14		
10	Layer 3 & CLI license (if any)		
11	Dual AC Power Supply		

<b>ITEM NO. 3.1.2</b>	<b>Network Switch (48-Ports Access)</b>	<b>Qty. 36 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	48x10/100/1000Base-T Ethernet port, 4x 10G SFP+ Ports		
2	AC Power Supply		
3	POE+		
4	Forwarding Performance 150 Mpps/ Higher		
5	Switching Capacity: 220Gbits/higher		
6	Stack Required		
7	Must have CLI Management		
8	Must support 802.1X Authentication & hybrid authentication on per port basis & implements dynamic policy delivery to users		
9	3 Meter Power cord C13/14		

<b>ITEM NO. 3.1.3</b>	<b>Network Switch (24-Ports Access)</b>	<b>Qty. 36 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	24x10/100/1000Base-T Ethernet port, 4x 10G SFP+ Ports		
2	AC Power Supply		
3	POE+		
4	Forwarding Performance 132 Mpps/ Higher		
5	Switching Capacity: 176Gbits/higher		
6	Stack Required		
7	Must have CLI Management		
8	Must support 802.1X Authentication & hybrid authentication on per port basis & implements dynamic policy delivery to users		
9	3 Meter Power cord C13/14		



<b>ITEM NO. 3.1.4</b>	<b>SFP+ dual stand (Single-mode)</b>	<b>Qty. 240 Nos.</b>
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<b>S#</b>	<b>Name of Goods, Technical Description, Specifications and Standards</b>	<b>Response (Y/N)</b>	<b>Deviation (if any)</b>
1	Must be compatible with Network Switches		
2	Must support link length of minimum 1km		
3	With Duplex SC-LC Optical Fiber Compatible 3-meter Patch cords		

<b>ITEM NO. 3.1.5</b>	<b>SFP+ dual stand (Multi-mode)</b>	<b>Qty. 32 Nos.</b>
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<b>S#</b>	<b>Name of Goods, Technical Description, Specifications and Standards</b>	<b>Response (Y/N)</b>	<b>Deviation (if any)</b>
1	Must be compatible with Network Switches		
2	With Duplex LC-LC Optical Fiber Compatible 3-meter Patch cords		

<b>ITEM NO. 3.1.6</b>	<b>SFP+ dual stand (Multi-mode)</b>	<b>Qty. 16 Nos.</b>
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<b>S#</b>	<b>Name of Goods, Technical Description, Specifications and Standards</b>	<b>Response (Y/N)</b>	<b>Deviation (if any)</b>
1	Must be compatible with Network Switches		
2	With Duplex LC-LC Optical Fiber Compatible 5-meter Patch cords		

**MANDATORY TECHNICAL REQUIREMENTS  
(NONCOMPLIANCE SHALL LEAD TO REJECTION OF BIDS)**

S#	Name of Goods / Services / Requirement, Technical Description, Specifications and Standards	Response (Yes / No / Agreed / Not Agreed / Accepted / Not Accepted)	Deviation (If any)
1.	Quoted Product's OEM presence in Pakistan must be minimum 5-years.		
2.	Quoted product must be ranked as "Leaders" in the Gartner Magic Quadrant for Enterprise LAN Infrastructure category.		
3.	Bidder must Quote for a SDN Access LAN solution (with all required equipment & its complete configurations) for centralized management, control, and analysis of quoted Network Switches. The solution must have capability of third-party management and control system to integrate with existing multi-vendor network devices of DUHS for service orchestration and automation, for total of minimum 300 devices. Must also have 802.1x User Access Authentication feature for 10,000 concurrent users, along with automated network deployment feature to support new devices installation. DUHS at any stage, may decide to remove any item or modify a quantity of any item from this solution. Therefore, must quote prices for each and every Feature & Component individually.		
4.	Bidder must Quote 3 Years SNS with 24x7 Principal Technical support for complete solution & NBD Hardware Replacement Services for the quoted equipment.		
5.	Bidder must be holding authorized Partnership Level with proposed OEM.		
6.	DUHS at any stage, may decide to remove any item or modify a quantity of any item in above mentioned BoQ or even Cancel complete lot from this tender. Therefore, must quote prices for each and every COMPONENT individually.		
7.	Licenses (if any) should be quoted separately per feature / per device as the case may be.		
8.	All equipment should have three years comprehensive onsite warranty including parts, labor and Software, Upgrades/ License renewals and should be from direct Principal		
9.	All bidders must quote complete solution, require commissioning the services completely & add/propose and quote separately any item which they deem necessary for proper functioning of the system.		
10.	DUHS IT team will be made part of deployment.		
11.	The end user licenses, end user warranties and end user contracting support services will be in the name of Customer i.e. Dow University of Health Sciences, for all the equipment and Software loaded on the equipment delivered during the course of the project.		
12.	Bidder Must Include Professional & Expert level Product Training with Certification For 3 Participants		
13.	All quoted products must have a minimum useful operational life of 5-Years.		
14.	Bidder must also quote for additional years of extension of warranty & support services for Year#4 & Year#5, these services would be extended on yearly basis, after the expiry of initial 3-years of duration.		

## Lot No. 4: Miscellaneous ICT Items

<b>ITEM NO. 4.1.1</b>	<b>USB Desktop Barcode Scanners (Wired)</b>	<b>Qty. 50 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Must have a beeper sound, for every successful reading of barcode		
2	3D Area Imaging Scanner		
3	Compatible with Windows 10 & 11		
4	Must include stand for device		

<b>ITEM NO. 4.1.2</b>	<b>USB Handheld Barcode Scanners</b>	<b>Qty. 30 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Must have a beeper sound, for every successful reading of barcode		
2	2D Area Imaging Scanner		
3	Compatible with Windows 10 & 11		
4	Must include stand for device		

<b>ITEM NO.4.1.3</b>	<b>USB Barcode Printers</b>	<b>Qty. 75 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Compatible with Windows 10 & 11		
2	Printing Resolution must be 200 DPI or better		
3	Should support printing via USB & Network (both)		
4	Must provide Power cord Flat 3-Pin UK-Type Plug		

<b>ITEM NO. 4.1.4</b>	<b>Thermal Printers</b>	<b>Qty. 86 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Printing Method must be Direct Thermal, need all required cables.		
2	Printing Speed should be 200mm/sec or better		
3	Compatible with Windows 10 & 11		
4	Printing Resolution must be 200 DPI or better		
5	Auto Cutter Feature is required		
6	Should support printing via USB & Network (both)		
7	Must provide Power cord Flat 3-Pin UK-Type Plug		

<b>ITEM NO. 4.1.5</b>	<b>LaserJet Printers (USB/Network)</b>	<b>Qty. 73 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Minimum Print speed of Up to 40 Pages Per Minute		
2	Resolution must be 1200 x 1200 dpi or higher		
3	Compatible with Windows 10 & 11 (both)		
4	Must have at least one Hi-Speed USB 2.0		
5	Must have at least one host USB port		
6	Should support printing via USB & Network (both)		
7	Must Support Automatic Duplex Printing		
8	Must provide Printer Cable for direct PC Connectivity		
9	Must provide Power cord Flat 3-Pin UK-Type Plug		

<b>ITEM NO. 4.1.6</b>	<b>Network Optical Fiber ODF (Optical Distribution Frame)</b>	<b>Qty. 50 Nos.</b>
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<b>S#</b>	<b>Name of Goods, Technical Description, Specifications and Standards</b>	<b>Response (Y/N)</b>	<b>Deviation (if any)</b>
1	12 Port Rack mount ODF (Loaded with SC adapters)		
2	Standard Quality		

<b>ITEM NO. 4.1.7</b>	<b>Network I/O Jack Tool-less Branded (AMP or Equivalent)</b>	<b>Qty. 1,000 Nos.</b>
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<b>ITEM NO. 4.1.8</b>	<b>Network Face Plate (with Back Box) Single Shutter Branded (AMP or Equivalent)</b>	<b>Qty. 300 Nos.</b>
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<b>ITEM NO. 4.1.9</b>	<b>Network Face Plate (with Back Box) Dual Shutter Branded (AMP or Equivalent)</b>	<b>Qty. 200 Nos.</b>
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<b>ITEM NO. 4.1.10</b>	<b>PVC Cable Manager Standard Quality (AMP or Equivalent)</b>	<b>Qty. 100 Nos.</b>
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<b>ITEM NO. 4.1.11</b>	<b>Patch Panel Loaded/Unloaded (AMP or Equivalent)</b>	<b>Qty. 100 Nos.</b>
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<b>ITEM NO. 4.1.12</b>	<b>Cat6 UTP Network patch cords - 1Meter (Branded)</b>	<b>Qty. 1,000 Nos.</b>
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<b>ITEM NO. 4.1.13</b>	<b>OTDR Machine</b>	<b>Qty. 1 No.</b>
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<b>S#</b>	<b>Name of Goods, Technical Description, Specifications and Standards</b>	<b>Response (Y/N)</b>	<b>Deviation (if any)</b>
1	Must have Dual-Wavelength module: single-mode 1310nm, 1550nm		
2	Must have Visual Fault Locator (VFL) option		
3	Minimum Distance supported range should be 10km		
4	Must have FC/PC connector Type		
5	Should have USB Interface for transferring results to external device		
6	Must have Dual Type of Input Power: <ul style="list-style-type: none"> <li>• AC adaptor Input 220V~240V,</li> <li>• Rechargeable Lithium-Ion Battery</li> </ul>		

<b>ITEM NO. 4.1.14</b>	<b>Splicing Machine</b>	<b>Qty. 1 No.</b>
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<b>S#</b>	<b>Name of Goods, Technical Description, Specifications and Standards</b>	<b>Response (Y/N)</b>	<b>Deviation (if any)</b>
1	Must support Fiber Active core alignment method		
2	Must support for both Single-mode & Multi-mode Optical Fiber		
3	Must have Electrode life of 5,000 splices or higher		
4	Must have less than 4kg of weight (with Battery)		
5	Must have Dual Type of Input Power: <ul style="list-style-type: none"> <li>• AC adaptor Input 220V~240V,</li> <li>• Rechargeable Lithium-Ion Battery for minimum 300 Splices</li> </ul>		
6	Display LCD monitor must be TFT touch screen & size must be 5 inches or bigger, having Magnification 200 to 320x		
7	Should have PC USB2.0 Mini B type & Wireless Bluetooth		
8	Data storage must be capable for storing: <ul style="list-style-type: none"> <li>• Splice mode 100 or more splice modes</li> <li>• Heat mode 30 or more heat modes</li> </ul>		

	<ul style="list-style-type: none"> <li>Splice result 20,000 splices or more</li> <li>Splice image 100 or more images</li> </ul>		
9	Should have Automatic functions for Splice mode selection by fiber type analysis		

<b>ITEM NO. 4.1.15</b>	<b>Power Meter for Optical Fiber Testing</b>	<b>Qty. 1 No.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Must have storage capacity of storing at least 1000 test results		
2	Must be suitable for Measuring optical power (dBm) and insertion loss (dB)		
3	Should have USB Interface for transferring results to external device		
4	Must have Dual Type of Input Power: <ul style="list-style-type: none"> <li>AC adaptor Input 220V~240V,</li> <li>Rechargeable Battery</li> </ul>		

<b>ITEM NO. 4.1.16</b>	<b>UPS 650 VA</b>	<b>Qty. 155 No.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	650VA		
2	Can take load of one PC		
3	Battery 12V 7Ah with backup of 10 to 15 minutes		
4	Line Interactive		

<b>ITEM NO. 4.1.17</b>	<b>UPS 2 KV</b>	<b>Qty. 60 No.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	1200 Watts – 2000VA		
2	Can take load up to 4 PCs		
3	Battery 12V 7Ah x 2 with backup of 20 to 25 minutes		
4	Line Interactive		

<b>ITEM NO. 4.1.18</b>	<b>UPS 3 KV</b>	<b>Qty. 57 No.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	1800 Watts – 3000VA		
2	Can take load up to 06 PCs		
3	Battery 12V 9Ah x 2 with backup of 20 to 25 minutes		
4	Line Interactive		

<b>ITEM NO. 4.1.19</b>	<b>Laser Jet Printer (Print, Copy and Scan)</b>	<b>Qty. 10 No.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Print Speed up to 18 ppm (Black)		
2	Print quality Black (best) Upto 600 x 600 dpi		
3	Hi-Speed USB 2.0 port		

**MANDATORY TECHNICAL REQUIREMENTS FOR THE ITEMS OF LOT NO. 4  
(NONCOMPLIANCE SHALL LEAD TO REJECTION OF BIDS)**

<b>S#</b>	<b>Name of Goods / Services / Requirement, Technical Description, Specifications and Standards</b>	<b>Response (Yes / No / Agreed / Not Agreed / Accepted / Not Accepted)</b>	<b>Deviation (If any)</b>
1.	DUHS at any stage, may decide to remove any item or modify a quantity of any item in above mentioned BoQ or even Cancel complete lot from this tender. Therefore, must quote prices for each and every COMPONENT individually.		
2.	All bidders must quote complete Lot, require commissioning the services completely & add/propose (quote separately) any item which they deem necessary for proper functioning of the equipment.		
3.	All non-consumables equipment should have three years comprehensive onsite warranty including parts, labor and Software, Upgrades/ License renewals.		
4.	The end user licenses and end user warranties and end user contracting support services will be in the name of Dow University of Health Sciences, for all the equipment and Software loaded on the equipment delivered during the course of the project.		

**LAPTOPS**  
**LOT# 5**

Item No.	Name of Goods, Technical Description, Specifications and Standards	Required Quantity
5.1.	<p><b><u>LAPTOPS CORE i7 WITH ACCESSORIES</u></b></p> <ul style="list-style-type: none"> <li>• HP, DELL or equivalent</li> <li>• Core™ i7 (12<sup>th</sup> Generation)</li> <li>• Memory: 16 GB RAM</li> <li>• Storage: Solid State Drive (SSD) 256 M2</li> <li>• 15.6” Screen</li> <li>• 03 Years onsite principal warranty through Distributor / Partner in the country.</li> </ul>	06 Units
5.2	<p><b><u>LAPTOPS CORE i5 WITH ACCESSORIES</u></b></p> <ul style="list-style-type: none"> <li>• HP, DELL or equivalent</li> <li>• Core™ i5 (11<sup>th</sup> Generation)</li> <li>• Memory: 08 GB RAM</li> <li>• Storage: Solid State Drive (SSD) 240</li> <li>• 15.5” Screen</li> <li>• 03 Years onsite principal warranty through Distributor / Partner in the country.</li> </ul> <p><b><u>NOTE:</u></b></p> <ul style="list-style-type: none"> <li>• Equipment must be quoted with all the standard accessories (including power cables/adapters and operational and repair manuals, required for the operation of the equipment.</li> </ul>	10 Units

**MANDATORY TECHNICAL REQUIREMENTS  
(NONCOMPLIANCE SHALL LEAD TO REJECTION OF BIDS)**

S#	Name of Goods / Services / Requirement, Technical Description, Specifications and Standards	Response (Yes / No / Agreed / Not Agreed / Accepted / Not Accepted)	Deviation (If any)
1.	Bidder must also include 3 Years On-site Warranty Support Services.		
2.	Quoted Product's OEM presence in Pakistan must be minimum 5-years.		
3.	Bidder must have Gold or higher Tier Partnership Level with proposed OEM.		
4.	DUHS at any stage, may decide to remove any item or modify a quantity of any item in above mentioned BOQ. Therefore, must quote prices for each and every COMPONENT individually.		
5.	All active equipment should have three years comprehensive onsite warranty including parts, labor and Software, Upgrades/ License renewals and should be from direct Principal		
6.	The end user licenses, end user warranties and end user contracting support services will be in the name of Customer i.e. Dow University of Health Sciences, for all the equipment.		
7.	Selected Bidder must provide comprehensive documentation of Configuration and Manuals etc.		
8.	Bidder must quote complete solution, require commissioning the services completely & add/propose and quote separately any item which they deem necessary for proper functioning of the system.		



**Section VI.**  
**Sample Forms**

## Sample Forms

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# 1. Bid Form and Price Schedules

NIT / IFB N<sup>o</sup>: \_\_\_\_\_

Date: \_\_\_\_\_

To: *[name and address of Procuring Agency]*

Gentlemen and/or Ladies:

Having examined the bidding documents including Addenda Nos. *[insert numbers]*, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver *[description of goods and services]* in conformity with the said bidding documents for the sum of *[total bid amount in words and figures]* or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to deliver the goods *[insert offered delivery schedule]*.

If our Bid is accepted, we will obtain the guarantee of a bank in a sum equivalent to \_\_\_\_\_ percent of the Contract Price for the due performance of the Contract, in the form prescribed by the Procuring agency.

We agree to abide by this Bid for a period of *[number]* days from the date fixed for Bid opening under Clause 22 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 and your notification of award, shall constitute a binding Contract between us.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:

Name and address of agent	Amount and Currency	Purpose of Commission or gratuity
_____	_____	_____
_____	_____	_____
_____	_____	_____

(if none, state "none")

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

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

\_\_\_\_\_  
*[signature]*

\_\_\_\_\_  
*[in the capacity of]*

Duly authorized to sign Bid for and on behalf of \_\_\_\_\_

**2. PRICE SCHEDULE IN PAK RUPEES delivered duty paid (DDP BASIS)**

**FOR GOODS OFFERED WITHIN THE PROCURING AGENCY'S COUNTRY**

S#	Detailed Specification of Goods	Quantity of Stores	Unit	Name of Manufacturer	Country of Origin	Unit Price on DDP Basis (Excluding GST)	Total Cost On DDP Basis (Excluding GST)
1.	2.	3.	4.	5.	6.	7.	8.
1.							
<b>TOTAL AMOUNT ON DDP BASIS (EXCLUDING GST) IN PAK RS.</b>							
<b>( Total Amount in words )</b>							

Name \_\_\_\_\_

In the capacity of \_\_\_\_\_

Signed \_\_\_\_\_

Duly authorized to sign the Bid for and on behalf of \_\_\_\_\_

Date \_\_\_\_\_

2. (A) **PRICE SCHEDULE IN FOREIGN CURRENCY**  
**(CFR / CNF/ C&F / CPT - KARACHI BASIS)**

**FOR GOODS OFFERED FROM OUTSIDE THE PROCURING AGENCY'S COUNTRY**

Name of Bidder \_\_\_\_\_, IFB / NIT Number \_\_\_\_\_.

S#	Detailed Specification of Goods	Model / Cat No.	Name of Manufacturer	Country of Origin	Port of Shipment	Quantity of Stores	Unit	Currency	Rate Per Unit	Total Price
1	2	2	4	5	6	7	8	9	10	11
<b>Total Amount in Foreign Currency</b>										

Name \_\_\_\_\_

In the capacity of \_\_\_\_\_

Signed \_\_\_\_\_

Duly authorized to sign the Bid for and on behalf of \_\_\_\_\_

Date \_\_\_\_\_

**NOTE:**

Port of Shipment and Country of origin of "MAJOR PART(S) OF THE EQUIPMENT" must be clearly reflected separately in the Technical and Financial bids. The "Origin" means the place where the "goods" are mined, grown, or produced.

## Bid Security Form

Whereas *[name of the Bidder]* (hereinafter called “the Bidder”) has submitted its bid dated *[date of submission of bid]* for the supply of *[name and/or description of the goods]* (hereinafter called “the Bid”).

KNOW ALL PEOPLE 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 unto *[name of Procuring agency]* (hereinafter called “the Procuring agency”) in the sum of for which payment well and truly to be made to the said Procuring agency, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this \_\_\_ day of \_\_\_\_\_ 20\_.

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, having been notified of the acceptance of its Bid by the Procuring agency during the period of bid validity:
  - (a) fails or refuses to execute the Contract Form, if required; or
  - (b) fails or refuses to furnish the performance security, in accordance with the Instructions to Bidders;

we undertake to pay to the Procuring agency up to the above amount upon receipt of its first written demand, without the Procuring agency having to substantiate its demand, provided that in its demand the Procuring agency will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including twenty eight (28) days after the period of bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

---

*[signature & Seal of the bank]*

### 3. Contract Form

**THIS AGREEMENT** made the \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_ between [name of Procuring Agency] (hereinafter called “the Procuring Agency”) of the one part and [name of Supplier] of [city and country of Supplier] (hereinafter called “ the Supplier” of the other part:

WHEREAS the Procuring agency invited bids for certain goods and ancillary services, viz., [*brief description of goods and services*] and has accepted a bid by the Supplier for the supply of those goods and services in the sum of [*contract price in words and figures*] (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
  - (a) the Bid Form and the Price Schedule submitted by the Bidder;
  - (b) the Schedule of Requirements;
  - (c) the Technical Specifications;
  - (d) the General Conditions of Contract;
  - (e) the Special Conditions of Contract; and
  - (f) the Procuring agency’s Notification of Award.
3. In consideration of the payments to be made by the Procuring agency to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Procuring agency to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract
4. The Procuring agency hereby covenants to pay the Supplier 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 Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by \_\_\_\_\_ the\_ (for the Procuring agency)

Signed, sealed, delivered by \_\_\_\_\_ the\_ (for the Supplier)

#### 4. Performance Security Form

To: *[name of Procuring agency]*

WHEREAS *[name of Supplier]* (hereinafter called “the Supplier”) has undertaken, in pursuance of Contract No.*[reference number of the contract]* dated \_\_\_\_\_ 20\_\_ to supply *[description of goods and services]* (hereinafter called “the Contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a bank guarantee by a reputable bank for the sum specified therein as security for compliance with the Supplier’s performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, 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 Supplier to be in default under the Contract and without cavil or argument, any sum or sums 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 the \_\_\_\_\_ day of 20\_\_.

Signature and seal of the Guarantors

\_\_\_\_\_  
*[name of bank or financial institution]*

\_\_\_\_\_  
*[address]*

\_\_\_\_\_  
*[date]*



## 5. Bank Guarantee for Advance Payment

To: *[name of Procuring  
agency] [name of Contract]*

Gentlemen and/or Ladies:

In accordance with the payment provision included in the Special Conditions of Contract, which amends Clause 16 of the General Conditions of Contract to provide for advance payment, *[name and address of Supplier]* (hereinafter called “the Supplier”) shall deposit with the Procuring agency a bank guarantee to guarantee its proper and faithful performance under the said Clause of the Contract in an amount of *[amount of guarantee in figures and words]*.

We, the *[bank or financial institution]*, as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the Procuring agency on its first demand without whatsoever right of objection on our part and without its first claim to the Supplier, in the amount not exceeding *[amount of guarantee in figures and words]*.

We further agree that no change or addition to or other modification of the terms of the Contract to be performed thereunder or of any of the Contract documents which may be made between the Procuring agency and the Supplier, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition, or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment received by the Supplier under the Contract until *[date]*.

Yours truly,

Signature and seal of the Guarantors

---

*[name of bank or financial institution]*

---

*[address]*

---

*[date]*

## 6. Manufacturer's Authorization Form

*[See Clause 13.3 (a) of the Instructions to Bidders.]*

Date: \_\_\_\_\_

To: *[name of the Procuring agency]*

WHEREAS *[name of the Manufacturer]* who are established and reputable manufacturers of *[name and/or description of the goods]* having factories at *[address of factory]* do hereby authorize *[name and address of Agent]* to submit a bid, and subsequently negotiate and sign the Contract with you against **IFB No. *[reference of the Invitation to Bid]*** for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per Clause 15 of the General Conditions of Contract for the goods offered for supply by the above firm against this Invitation for Bids.

We hereby undertake that we will provide the complete after sale services support in case of agency transfer.

---

*[signature for and on behalf of Manufacturer]*

*Note:* This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should be included by the Bidder in its bid.

## 7. Integrity Pact (AFFIDAVIT)

### DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS/CONTRACTORS/CONSULTANTS.

Contract Number: \_\_\_\_\_ Dated: \_\_\_\_\_

Contract Value: \_\_\_\_\_

Contract Title: \_\_\_\_\_

**[Name of Supplier/Contractor/Consultant]** hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Sindh (GoS) or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoS) through any corrupt business practice.

Without limiting the generality of the foregoing, **[Name of Supplier/ Contractor/ Consultant]** represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit, in whatsoever form, from Procuring Agency (PA), except that which has been expressly declared pursuant hereto.

**[Name of Supplier/Contractor/Consultant]** certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with PA and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

**[Name of Supplier/Contractor/Consultant]** accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to PA under any law, contract or other instrument, be voidable at the option of PA.

Notwithstanding any rights and remedies exercised by PA in this regard, **[Name of Supplier/Contractor/Consultant]** agrees to indemnify PA for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to PA in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by **[Name of Supplier/Contractor/Consultant]** as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit, in whatsoever form, from PA.

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**[Procuring Agency]**

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**[Supplier /Contractor/Consultant]**

## APPENDIX – A

### STATEMENT OF COMPLIANCE TO TECHNICAL SPECIFICATIONS

<b>High Performance Compute Server Hardware</b>			
ITEM NO. 01	High Performance Compute Server Hardware	Qty. 6 Nos.	
S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	2U rack mount		
2	Chassis should have minimum 12 HDD support		
3	System should be capable enough to support 2 CPU		
4	2 x Intel® Xeon® Platinum 8358 2.6G, 32C/64T, 11.2GT/s, 48M Cache, Turbo, HT (250W) DDR4-3200 or Equivalent		
5	Heatsink for 2 CPU configuration		
6	16 x 64GB RDIMM, 3200MT/s, Dual Rank		
7	1 x 400GB (or higher) Optane NVMe cache drive		
8	Enterprise level management software		
9	2 x Redundant dual port 25Gb network cards (with compatible SFPs)		
10	2 x Dual Port 16Gb Fibre Channel HBA (with compatible SFPs)		
11	No Operating System		
12	1 X BOSS Card (Dual 480GB M.2, Raid 1)		
13	6 x 3.8TB SSD drives		
14	Dual power supply		
15	2 x C13/C14 type 3Meter power cords		
16	Rack Mount Kit		
17	3 Years Principal Direct NBD Warranty & Support services		

<b>HCI Software with License</b>			
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ITEM NO. 01	Virtualization Management Software	Qty. 02 Nos.	
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1.	Must Include High Availability Redundancy for Virtualization Management Platform		
2.	Must Include Management for Existing workload Virtual Machines		
3.	Must Include Role-Based Management with Permission Control		
4.	Must Include HTML5 Web Management		
5.	Must Include Centralized Control & Visibility		
6.	Must Include Future Scale Out Up to 64 Nodes.		
7.	Must also allow growth and scale for compute and storage resources.		
8.	Must incorporate performance, capacity, and health monitoring capability within the vendor's support cloud.		
9.	Must be built on the proven technologies that is optimized for new users as well as for experienced administrators.		
10.	The Virtualization product must be tightly integrated with SDDC Manager to coordinate lifecycle management of hardware components Firmware. Such as server BIOS, Disk, Raid Controller, NIC, Expander Backplane & Remote Management.		
11.	The Virtualization product MUST NOT run any sort of software layered on top of hypervisor (Hypervisor emulation is not allowed).		
12.	Should support distributed RAID per CPU.		
13.	Must be based on proven virtualization technology leveraging both software defined compute and storage. Must be designed with h/w & s/w to deliver proven 99.9999% availability		

14.	Proactive two-way remote support connection that is secure, high speed, and operates 24x7x365		
15.	Mission Critical Warranty & Support services for 3-Years.		
16.	Quoted Product must be Listed in 2021 or 2022 Gartner Magic Quadrant for Hyper-Converged Infrastructure Software		
17.	Should support SSO for user management with logs of every management instance & with ability to send out the log entries in real time using standard protocols (Syslog or etc for integration with enterprise management applications).		
18.	Must support over SSO integration with LDAP/AD enabling role - based management for complete lifecycle management.		
19.	Must support STIG, CCA & FIPS 140 compliance standards.		
20.	Must be supporting NVMe all-flash storage over fabric.		

<b>ITEM NO. 02</b>	<b>Compute Virtualization Hypervisor License</b>	<b>Qty. 12 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Must Include High Availability Between Nodes		
2	Must Include VM Snapshot, VM Clone, VM vMotion		
3	Must Include VM Resources Hot-Add		
4	Must Include Distributed Resource Scheduler (DRS)		
5	Must Include Distributed Switch by Using Cluster-Level Network Aggregation		
6	Must Include Hardware Health Check to Monitor CPU, Memory, Network Interface Card, Hard Drive and RAID Controller		
7	Must support Automated restart of failed virtual machines and complete tolerance to failover for Critical applications without a packet drop		

<b>ITEM NO. 03</b>	<b>Storage Virtualization</b>	<b>Qty. 12 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Must Be the Same Vendor as Compute Hypervisor		
2	Must Include 2 Copies & 3 Copies Data Redundancy		
3	Must Include Data Striping Technology		
4	Must Include Data-At-Rest Encryption for VM Data		
5	Must Include Cache & Data Tiering		
6	Must Include Data Disk Balancing & Data Rebuilding		
7	Must be available to control each virtual disk with different policies. Solution must support software defined storage distributed data store to provide consistent and resilient fault tolerance scale-up storage.		

<b>ITEM NO. 04</b>	<b>Network Virtualization</b>	<b>Qty. 12 Nos</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	Must Be the Same Vendor as Compute Hypervisor		
2	Must Include to Display Whole Data Center Network Topology		
3	Must Include Network L2 Bridging to Physical Environments		
4	Must Include Distributed Routing & Distributed Switching		
5	Must Include Micro-Segmentation		
6	Must Include Display Network Traffic Flow in Real-Time		
7	Must Include Network Visualization with Topology overview		

<b>ITEM NO. 05</b>	<b>VM Backup Solution</b>	<b>Qty. 1 No.</b>
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<b>S#</b>	<b>Name of Goods, Technical Description, Specifications and Standards</b>	<b>Response (Y/N)</b>	<b>Deviation (if any)</b>
1	Must Be Fully Compatible with Compute Hypervisor		
2	Must Include Full VM Level Backup		
3	Must Include to Backup VMs in All Hardware Nodes		
4	Must Include Incremental Backup & Differential Backup Technology		
5	Must Include Automated Schedule Backup (Weekly, Daily, Hourly)		
6	Must Include Backup Repository to Internal Virtual Storage		
7	Must Include Backup Repository to External SAN Storage		

<b>ITEM NO. 06</b>	<b>VM DISASTER RECOVERY SOLUTION (30 or more VMs)</b>	<b>Qty. 1 No.</b>
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<b>S#</b>	<b>Name of Goods, Technical Description, Specifications and Standards</b>	<b>Response (Y/N)</b>	<b>Deviation (if any)</b>
1	Must be Fully Compatible with Compute Hypervisor		
2	Must Include Agentless Disaster Recovery Replication & protects Virtual Machines with VM level granularity.		
3	Must enables Continuous Data Protection for any Point-in-Time recovery to optimize RPO and RTO and having minimum RPO of 1 Sec Continuous Data Protection (CDP) Replication		
4	Must support local, remote and concurrent local and remote replication with continuous data protection for recovery to any Point in time		
5	Must Include Replication Traffic with Compression Technology & hence reduces WAN bandwidth consumption and utilize available bandwidth optimally		
6	Must Include Planned Data Center Migration		
7	Must Include Data Center Failback		
8	Offers multi-site support with up to 4:1 fan-in for centralized DR site protecting multiple branch offices and 1:4 fan-out replication for development and test operations.		
9	Must support Synchronous replication (local & remote), data protection (backup & recovery), and advanced disaster recovery capabilities.		
10	Must be a Proven Technology that provides Business Continuity		

## TOR Network Switches

<b>ITEM NO. 01</b>	<b>Network Switches</b>	<b>Qty. 04 Nos.</b>
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S#	Name of Goods, Technical Description, Specifications and Standards	Response (Y/N)	Deviation (if any)
1	12xSFP28, 2xQSFP28 Ports		
2	Dual redundant AC Power Supply		
3	PSU to I/O Ports Panel (Rear-to-Front) airflow		
4	Must support wirespeed throughput for each port.		
5	Switching Capacity: 1.08 Tbps (full duplex)		
6	Must have Virtualization technology where 2 chassis can be logical group in single domain providing multichassis LAG capability		
7	3 Meter Power cord C13/14		
8	Must have advance features: SSHv2, TACAS+, SNMP-V3, OSPFv1 and OSPFv2.		
9	Support all the L2 and L3 standard protocols		
10	Operating system of switch Must have support to be integrated inside proposed virtualization management platform console		
11	Layer 3 or any other required license (if any)		
12	3-Years Next Business Day Warranty Support services		

<b>ITEM NO. 02</b>	<b>SFP28 Optical Fiber Modules (with Patch cords)</b>	<b>Qty. 48 Nos.</b>
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<b>ITEM NO. 03</b>	<b>QSFP28 Optical Fiber Modules (with Patch cords)</b>	<b>Qty. 08 Nos.</b>
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**MANDATORY TECHNICAL REQUIREMENTS  
(NON-COMPLIANCE TO ANY REQUIREMENT SHALL LEAD TO REJECTION OF BIDS)**

<b>S#</b>	<b>Name of Goods / Services / Requirement, Technical Description, Specifications and Standards</b>	<b>Response (Yes / No / Agreed / Not Agreed / Accepted / Not Accepted)</b>	<b>Deviation (If any)</b>
1.	Bidder must Quote 3 Years Principal Technical support.		
2.	Bidder must have Top Tier Partnership Level/Status with proposed OEM.		
3.	DUHS at any stage, may decide to remove any item or modify a quantity of any item in above mentioned BoQ or even Cancel complete lot from this tender. Therefore, must quote prices for each and every COMPONENT individually.		
4.	Onsite Configuration & Installation, Operation, maintenance & managed services of all above-mentioned systems / solution will be the responsibility of the supplier for 3 years, without any additional cost.		
5.	DUHS IT team will be made part of deployment and integration of the software / hardware.		
6.	The end user licenses, end user warranties and end user contracting support services will be in the name of Customer i.e. Dow University of Health Sciences, for all the equipment and Software loaded on the equipment delivered during the course of the project.		
7.	Selected Bidder will be responsible for the supply, Installation, configuration integration, testing and commissioning of supplied equipment and components at DUHS designated sites as per requirement. At the time of installation and commissioning, selected Bidder must provide comprehensive documentation of Configuration and Manuals etc.		
8.	All bidders must quote complete solution, require commissioning the services completely & add/propose and quote separately any item which they deem necessary for proper functioning of the system.		
9.	Bidder Must Quote Associate & Professional level Product Training with Certification For 3 Participants		
10.	Licenses of software required for the virtualization and configuration for the storage, Network & Backup systems should clearly mention <u>cost of each license</u> per processor / per server / per user, as the case may be.		
11.	The successful bidder will be responsible for complete end to end deployment of the solution & also responsible for any Services or Data Migration activity (if require) by arranging additional temporary hardware. The migration activity should be completed with full data integrity in minimum possible downtime. Exact scope of data to be migrated will be determined in consultation with the successful bidder and data owners.		
12.	The proposed appliance must combine virtualization, compute, storage, management, and data protection with a single point of support for the hardware and software.		
13.	The solution must deliver resiliency, QoS, and centralized management functionality.		
14.	One-click non-disruptive patches and upgrades including hardware and software without using secondary application or console		
15.	All quoted products must have a useful operational life of 5-Years.		
16.	Bidder must also quote for additional years of extension of warranty & support services for Year#4 & Year#5, these services would be extended on yearly basis, after the expiry of initial 3-years of duration.		



S#	Name of Goods / Services / Requirement, Technical Description, Specifications and Standards	Response (Yes / No / Agreed / Not Agreed / Accepted / Not Accepted)	Deviation (If any)
17.	The quoted solution must be offering two equivalent clusters, each of 3-Nodes & providing minimum 30TB of useable storage capacity per cluster, without adding more disks than the mentioned requirement.		