Dow University of Health Sciences

Bidding Documents

Single Stage – Two Envelope Procedure

As per Rule 46 (2) of SPPR, 2010 (Amended upto date)

IFB / NIT No. DUHS/DP/2022/180 Dated 22 MARCH 2022

PROCUREMENT OF
EQUIPMENT / INSTRUMENTS FOR
50 BEDDED DOW INTERNATIONAL DENTAL COLLEGE HOSPITAL, GULISTAN-E- JOHAR, KARACHI

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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 upto date) 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 Bidder 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 upto date) 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

.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 PrJice 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 Contact 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. trough 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 upto date)

IFB / NIT No. DUHS/DP/2022/180 Dated 22 MARCH 2022

PROCUREMENT OF EQUIPMENT / INSTRUMENTS FOR 50 BEDDED DOW INTERNATIONAL DENTAL COLLEGE HOSPITAL, GULISTAN-E- JOHAR, KARACHI

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/2022/180 Dated 22 MARCH 2022

Dow University of Health Sciences (DUHS), Karachi invites sealed bids on DDP Basis for the **"Procurement of Equipment / Instruments for 50 Bedded Dow International Dental College Hospital, Gulistan-e- Johar, Karachi"** from the Manufacturers or authorized Agents / Distributors of Manufacturers available on 'List of Active Tax Payers' of FBR for Income Tax & Sales Tax.

Tender fee	Rs. 2,000/- *(Rupees Two Thousand Only)* Non-Refundable
Bidding procedure	Single Stage – Two Envelope Procedure as per rule 46 sub rule 2 of SPP Rules 2010 (Amended upto date)
Bid security	Two (2%) percent of the total bid value.
Tender purchasing date	From the date of publishing to 11 April 2022
Deadline for submission of bids	12 April 2022 up to 11:00 Hrs.
Bid Opening Date & Time	12 April 2022 at 11:30 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 favour 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) 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 the both websites, DUHS will not be responsible of any confusion or misunderstanding in this regard.

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 (Amended upto date).

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

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.

Introduction	
ITB 1.1	**Name of Procuring Agency:** Dow University of Health Sciences, Karachi (DUHS)
ITB 1.1	**Name of Project / Scheme / Institute / Department:** 50 Bedded Dow International Dental College Hospital, Gulistan-e-Johar, Karachi.
ITB 1.1	**Name of Contract:** Procurement of Equipment / Instruments for 50 Bedded Dow International Dental College Hospital, Gulistan-e- Johar, Karachi
ITB 4.1	**Name of Procuring agency:** Dow University of Health Sciences, Karachi (DUHS).
ITB 6.1	**Postal Address:** 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
ITB 8.1	Language of the bid shall be ENGLISH.

Bid Price and Currency	
ITB 11.2	• The price quoted shall be in **Pakistani Rupee** for the Goods offered within the Procuring Agency's Country on delivered duty paid (DDP) Price. • The price quoted shall be **in foreign Currency** 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
ITB 11.4	The price shall be fixed during the contract period.
ITB 12.1	• **For the Goods offered within the Procuring Agency's Country:** the price quoted shall be in **Pak Rupees on delivered duty paid (DDP) basis.** • **For the Goods offered from Outside the Procuring Agency's Country:** the price quot**ed shall be in Foreign Currency on CFR / CNF/ C&F / CPT- Karachi Basis.**

Preparation and Submission of Bids		
ITB 13.3 (d)	Qualification requirements Please review the following list of all documents to be enclosed with the Technical Proposal. These are the "MANDATORY DOCUMENTS" non submission of any one of the mandatory documents will lead to disqualification and further assessment of tender will not be done hence "TECHNICALLY REJECTED"	

S#	DOCUMENT OF PARTICIPATING FIRM	YES / NO	PAGE #
1	Tender Purchase Receipt (Original) / Pay order of Tender Fee		
2	Bid Security (Copy with value hidden in Technical Proposal; Original in Financial Proposal)		
3.	Bid Form (Copy with value hiding in Technical Proposal: Original in Financial Proposal).		
4.	Price Schedule (Copy with value hiding in Technical Proposal: Original in Financial Proposal).		
5.	Bidding Documents (Duly filled, Signed & Stamped by Bidder)		
6.	Undertaking on stamp paper of Rs. 100/- duly notarized to the effect that: i. The bidder is neither blacklisted nor suspended by any National / International, including Provincial and Federal Government. ii. Any director or owner of the bidding company is not awarded any punishment from any Court of Law. iii. 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.		
7.	Compliance to bid validity, terms and conditions and delivery schedule.		
8.	Income Tax & GST Registration Certificate		
9.	Professional Tax Certificate		
10.	SECP Incorporation Certificate (where applicable)		
11.	PNRA Registration Certificate (where applicable)		
12.	PEC Registration Certificate (where applicable)		
13.	DRAP license showing importer of medical devices or proof of on-going process for registration. (Where applicable)		
14.	Company Profile		
15.	Bank Account Maintenance Certificate **(as per sample)**		
17.	Income Tax Returns (last 3 years) / Audited Financial Statement (last 3 year) duly audited by QCR rated audit firm.		
18.	Human Resource including detail of Technical Team (Workshop details & Technical Staff Bio data with Training Certificates **(as per sample Form-A)**		
19.	Soft Copy (CD/USB) containing all documents and forms (in Excel/DOC format and searchable)		

S#	DOCUMENT OF EACH ITEMS QUOTED	YES / NO	PAGE #
1.	Compliance sheet on letter head **(FORM D)**		
2.	The bidder must possess valid authorization/ sole agency agreement from the Foreign Principal **duly attested by the concerned Embassy**. Vendor must be authorized for last 3 years and provide assurance by Principal that in case of agency transfer all services (as per tender document) will be assured for useful life of the product. Contact details of Principal Singing authority must also be shared.		
3.	The Manufacturer should have documentary evidence to the effect that they are the original Manufacturer of the quoted product with indication of manufacturing site and its location.		
4.	Local manufacturer/agent capacity for technical services in reference to the product. Bidder quoting the goods mentioned in GROUP-A shall also provide a certificate from the **foreign principal** verifying the standard of repair workshop are as up-to the mark in Sindh. (Proof of Registered office must also be provided)		
5.	Catalogue / Brochures / technical data sheet (having complete technical specifications of the offered good) (original)		

ITB 14.3 (b)	Spare parts required for **ten (10) years** of operation.
ITB 15.1	Amount of bid security **shall not be less than 2% of the total bid price** 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.
ITB 16.1	Bid validity period shall be **90 days**
ITB 17.1	Original "Financial and Technical Proposals"
ITB 18.2 (a)	Dow University of Health Sciences (Ojha Campus), SUPARCO Road, off Main University Road, Gulzar-e-Hijri, Scheme No. 33, Karachi.
ITB 18.2 (b)	**Name of Project / Scheme / Institute / Department:** 50 Bedded Dow International Dental College Hospital, Gulistan-e-Johar, Karachi. **IFB/NIT Title:** Procurement of Equipment / Instruments for 50 Bedded Dow International Dental College Hospital, Gulistan-e- Johar, Karachi IFB / NIT No. DUHS/DP/2022/180 Dated 22 March 2022 "Must bear the name of the bidder" and a warning "Do Not Opened Before the time and date of bid opening"
ITB 19.1	**Deadline for bid submission:** **Date:** 12 April 2022 **Time:** upto 11:00 Hrs.
ITB 22.1	**Date, Time and Place of Bid opening** **Date:** 12 April 2022 **Time:** 11:30 Hrs. **Place:** 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.

Bid Evaluation	
ITB 25.4	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) Joint Venture'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) Alternative bids shall not be allowed.

(d) **The Bids shall be evaluated on itemized basis.**

(e) The bids shall be evaluated and compared on itemized basis OR on the basis of a group of similar nature goods OR goods compatible with each other.

(f) **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 upto date). In case, any bidder encloses the financial bid within the technical bid, the same shall be rejected summarily.

(g) The following merit point system for weighing evaluation factors / criteria will be applied for technical proposals.

(h) 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.

TECHNICAL EVALUATION CRITERIA
GROUP – A of Section V - Technical Specifications

S#	PARAMETERS / SUB-PARAMETERS	Total Marks
1	**Conformity to the Purchaser's Specifications (Mandatory)**	**30**
1.1	Fully compliant with the required tender specifications (Product demonstration, previous technical/support experience of the product/firm may also be considered for technical evaluation)	30
1.2	Compliant with minor deviation (up to 10 % subject to main function is not affected)	25
1.3	Non-compliant to required specifications	Disqualify
2	**Product Certification**	**10**
2.1	USA Food & Drug Administration (USA-FDA 510k)	04
2.2	European Community (CE) MDD for specific model or series	03
2.3	Japan Quality Assurance Organization (JQAO) / Japan Industrial Standard (JIS) Ministry of Health, Labor and Welfare (MHLW) Govt. of Japan for specific model or series	03
3	**Trained Product specialist -- (As per Form – A)**	**10**
3.1	Two marks for each Foreign Trained Graduate Engineer with PEC Registration in Sindh for the **quoted product** (Factory/OEM level service training) (As per Sample form with Proof of travel document and training certificate, online training is not acceptable)	6
3.2	Two marks for each Foreign Trained Science Graduate in Sindh for the **quoted product** (OEM level Application training) (As per Sample form with Proof of travel document and training certificate, online training is not acceptable)	4
4.	**Manufacturer's Authorization**	**10**
4.1	Participating Firm is OEM direct representative (not agent/distributor) and has registered branch/Liaison office in Pakistan or the Sole distributor for more than 15 years	10
4.2	Sole/Exclusive Authorized Distributor in Pakistan for last 5 Years (Proof of previous authorization certificate attested by embassy must be provided)	7
4.3	Sole/Exclusive Authorized Distributor for complete product line in Sindh/Pakistan for last 3 Years or the validity of authorization since issuance is of 3 years	5
4.4	Sole/Exclusive Authorized Distributor for limited product in Sindh/Pakistan for last 3 Years or the validity of authorization since issuance is of 3 years	**3**
5.	**Human Resource (Technical Staff) -- (As per Form – A)**	**6**
5.1	Diploma of Associate Engineer (DAE) in electrical / electronic / biomedical / mechatronics / mechanical / industrial. DAE certificate must be submitted. (0.5 mark for each certificate)	2
5.2	Graduate Engineer with PEC Registration in biomedical, electronics, mechatronics,	4

S#	PARAMETERS / SUB-PARAMETERS	Total Marks
	mechanical, industrial. Valid PEC registration card of the engineer must be submitted. (1 mark for each Engineer)	
6.	**Networking**	**3**
6.1	Networking setup across Pakistan (0.5 mark for each setup) (Proof of Registered office, with list of staff must be provided)	3
7.	**After Sales Capabilities**	**7**
7.1	List of Specialized Testing and Calibration tools available at workshop. (Such as Electrical Safety Analyzer, Defibrillator tester, Ventilator tester, X-Ray QA Analyzer, ESU Analyzer etc.) (1 marks for each) (As per Sample form with Proof of purchase and valid calibration certificate is mandatory) **(Form - B)**	4
7.2	Detail of major spare parts availability at workshop for the **quoted items**. (As per Sample form with Proof of purchase and manufacturers recommended list is mandatory) **(Form - C)**	3
8.	**Past Experience / Performance of Last 5 years (FORM – G)**	**14**
8.1	One mark for each after sale satisfactory performance certificate (verifiable) of the firm in last 5 years, on letter head, signed and stamped for the **quoted model** or previous provided model of equipment from the Head of institution and Biomedical Engineer of **public sector** tertiary care Hospital of Pakistan. Performance certificate on letter head of bidder/ Hospital Installation Report signed by Head of department and Biomedical Engineer Supply order / purchase order	7
8.2	One mark for each after sale satisfactory performance certificate (verifiable) of the firm in the last 5 years, on letter head for the **quoted model** or previous provided model of equipment from the Head of institution and Biomedical Engineer of **private sector** tertiary care Hospital of Pakistan. The hospital must be recognized from Pakistan Medical Commission (PMC) and 250+ Bedded. Performance certificate (issued in last one year) on letter head of bidder/ Hospital Installation Report signed by Head of department and Biomedical Engineer Supply order / purchase order	7
9.	**Average Annual Turnover with positive equity during last three (03) financial (Audited Statements of Accounts and Income Tax Return Forms must be attached as supporting documents) (FORM - E)**	**10**
9.1	Turn over below PKR 50 million	00
9.2	Turn over above PKR 50 million	03
9.3	Turn over above PKR 100 million	05
9.4	Turn over above PKR 200 million	07
9.5	Turn over above PKR 500 million	10
	TOTAL MARKS	**100**
10.	**Bonus points**	**6**
10.1	Free of Cost Comprehensive Extended Warranty including Parts, Services, Labor etc. (in addition to the standard or warranty period required in these bidding documents) 2 marks for each additional year	6

TECHNICAL EVALUATION CRITERIA
GROUP – B of Section V - Technical Specifications

S#	CRITERIA / PARAMETERS / SUB-PARAMETERS	Total Marks
1	**Conformity to the Purchaser's Specifications (Mandatory)**	**30**
1.1	Fully compliant with the required tender specifications (Product demonstration, previous technical/support experience of the product/firm may also be considered for technical evaluation)	30
1.2	Compliant with minor deviation (up to 5% subject to main function is not affected)	25
1.3	Non-compliant to required specifications	Disqualify
2	**Manufacturer's Authorization**	**10**
2.1	Bidder is OEM direct representative or the Sole Distributor (not agent/sub-distributor) and has registered branch/Liaison office in Pakistan for 10 years or more.	10
2.2	Bidder is OEM direct representative or the Sole Distributor (not agent/sub-distributor) and has registered branch/Liaison office in Pakistan for 05 years or more.	07
2.3	Bidder is OEM direct representative or the Sole Distributor (not agent/sub-distributor) and has registered branch/Liaison office in Pakistan for less than 5 years.	05
2.4	Sub-Distributors / Spot authorized agent and has registered branch/Liaison office in Karachi - Pakistan for 3 years or more.	03
3.	**Product Certification**	**10**
3.1	USA Food & Drug Administration (USA-FDA 510k)	04
3.2	European Community (CE) MDD for specific model or series	03
3.3	Japan Quality Assurance Organization (JQAO) / Japan Industrial Standard (JIS) Ministry of Health, Labour and Welfare (MHLW) Govt. of Japan for specific model or series	03
4.	**Technical Staff (As per Form – A)**	**10**
4.1	Diploma of Associate Engineer (DAE) in relevant field (electrical / electronic / biomedical / mechatronics / mechanical / industrial). Copy of DAE certificate must be submitted (1 mark for each)	02
4.2	Graduate Engineer in relevant field (electrical / electronic / biomedical / mechatronics / mechanical / industrial). Copy of Degree must be submitted (2 marks for each)	04
4.3	OEM Certified Resource for quoted equipment / product (02 Marks for each Resource)	04
5.	**Past Experience / Performance for supplying the medical equipment / instruments to the Public / Private Sector Universities / Government / Semi-Government Organization (Provincial / Federal / Local) in Pakistan during the last 5 years.** **Documentary evidence in shape of Purchase Order and Installation Report / Satisfactory performance certificate must be attached.**	**20**
5.1	Completing the contracts / projects for supplying the medical equipment / instruments valuing Rs. 3 million or above. (5 marks for each contract / project)	20

S#	CRITERIA / PARAMETERS / SUB-PARAMETERS	Total Marks
5.2	Completing the contracts / projects for supplying the medical equipment / instruments valuing Rs. 2 million or above. (4 marks for each contract / project)	16
5.3	Completing the contracts / projects for supplying the medical equipment / instruments valuing Rs. 1 million or above. (3 marks for each contract / project)	12
5.4	Completing the contracts / projects for supplying the medical equipment / instruments valuing Rs. 0.5 million or above. (2 marks for each contract / project)	08
6.	**Average Annual Turnover during last three (03) financial years (Income Tax Return Forms must be attached as supporting documents) (Form-E)**	**10**
6.1	Above PKR 30 million	10
6.2	Above PKR 20 million	07
6.3	Above PKR 10 million	03
6.4	Below PKR 10 million	00
	TOTAL MARKS	**100**
7.	**Bonus points**	**06**
7.1	Free of Cost Comprehensive Extended Warranty including Parts, Services, Labor etc. (in addition to the standard or warranty period required in these bidding documents) 2 marks for each additional year	06

ii. **<u>Financial Bids / Proposal Evaluation:</u>**

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 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).

Contract Award	
ITB 29.1	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
ITM 32.1	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

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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 (5%) 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 sellers 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 sellers 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.

GCC 15.9— **The bidder shall separately quote the price of service contract inclusive of parts and without parts for the period defined in the bid data sheet at clause ITB 14.3(b) in term of %age for total contract value.**

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:

(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.

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 upto date).

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

S#	Description of Goods	Qty.	Required Delivery Schedule	Location
01.	As per the details of items attached in **Section V – Technical Specifications**		Delivery & Installation within 12 weeks or earlier from the date of Contact Award or Establishment of LC.	50 Bedded Dow International Dental College Hospital, Gulistan-e- Johar, Karachi.

Section V.

Technical Specifications

Technical Specifications

GROUP – A

Item No. 1	Autoclave (B-Type)	Quantity: 4 Nos.

Capacity 20-25 liter
3 - 5 Trays
Clean cycle, dry cycle, Vacuum Test, Test Bowie & Dick, Helix test
Programs (Unwrapped 134, Wrapped 134, Unwrapped 121, Wrapped 121, Prion 134)
Customized cycles or free cycles
Pressure range: 1.2 kg/cm2 (121 deg C) to 2 Kg. /cm2 (134 deg C)
integrated automatic water filling and drain connection, with pressure and temperature safety
Drain tube, tray holder, and 5 trays to be included
200 – 240 VAC, 50-60 Hz

Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.
Must have installed and successfully maintain 50 units across Pakistan (list of installation as per sample form must be provided) and authorized as sole distributor with certified trained engineers to be available in Karachi.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 80+ installation in reputable institution
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
HTM 01-05, EN ISO 13485, IEC 62366-1, IEC 61010-1, EN 13060/AAMI ST55

Item No. 2	Pressing Porcelain Furnace	Quantity: 1 No.

Advanced cycles, sintered alloys and advanced porcelain products. Porcelain Furnaces with a Vacuum Pump.

100 Program Memory Expanded memory and faster logic board allows the user to use a multitude of porcelains
Quick-Cool Jet cools the muffle twice as fast
Enables user to create, modify, print and transfer programs to furnaces straight from their PC.
USB Port transfer programs
Larger Easy Read LCD Screen
Membrane Keys for keypad durability and less wear
Detent Knob with Built-In Select Switch allows for faster and more convenient programming
Improved Muffle More insulation than previous Pro Series to save energy and costs. Rated to 2200° F
Upgraded Thermocouple for accuracy can accommodate 100 - 200-gram rings for more flexibility
1200W - Furnace Alone 1400W - With Pump
220 VAC ± 10% 50/60 Hz
Muffle Windings
Quartz Tubing

Muffle Chamber 3 ¾" W x 2 ½" H x 3 ¾" D or better
Must have 10+ installation
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installations in reputable institution
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4th to 10th year.

Item No. 3	Periapical Digital Imaging System (PSP) / Intra Oral Imaging Plate System	Quantity: 1 No.

Operation under normal light conditions
High image quality resolution 20 LP/mm or better
Greyscales: 16bit
Should have 2x scanning modes i.e. Fast & High definition
Should have the features of Auto access, detect, scan and eject
Rapid image availability within 3.5-6 sec
Image read out, erase and make ready for the next use in one step
Standby function
Compact design place able in the direct vicinity of chair
PC interface via Network
Intraoral plates sizes 0, 1, 2 with 100% active surface area (1 set)
Complete with image viewing software on unlimited PCs in the Network
Accessories:
Light protective covers for image plates
Software with unlimited user license
Or equivalent
Installation and all accessories must be included
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4th to 10th year.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
At least 5+ installation in Pakistan (Satisfactory certificate including date of installation, make model and serial number signed by Biomedical Engineer and Institution Head)
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution

Item No. 4	Soft Tissue Diode Laser for Dentistry Dual Laser	Quantity: 2 Nos.

DIODE LASER 980/810nm and 635nm 20 watts
APPLICATION:
Endodontics
Periodontology
Microsurgery, Implantology, Prosthodontics
Bio stimulation
Photo active
whitening

Up to 1000 Therapies and patient Data base
Hand piece for Endo, Perio and surgical (autoclavable)
Optical fiber in silicon jacket 250cm length, (200um)
Needle tip 0,45 and 90
Diamond Knife
Safety glasses for doctor and patient
Foot switch
Bio stimulation adapter with Therapeutic tip of 14mm, 8mm and 2mm diameter
Safety glasses for doctor (λ 635/810nm)
Photoactive disinfection adapter tip with Perio, Endo and Bio
Toloniumcholoride blue, for PAD – soft tissue gel (Perio) -1ml
Toloniumcholoride blue, for PAD – endodontics fluid (endo)- 0,6ml
Therapeutic hand piece with fiber optic cable
200µm diameter with SMA 905 connector on both sides
Whitening tip
No USB Key, and lifetime software upgrade with service manual
Workstation (Mobile Trolley) with flexible Arm and Drawer
4 Wheels Castor for smooth movement
Or equivalent
Installation and all accessories must be included
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
At least 5+ installation in Pakistan (Satisfactory certificate including date of installation, make model and serial number signed by Biomedical Engineer and Institution Head)
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution

Item No. 5	**CBCT / 3D Digital OPG Machine with CEPH**	**Quantity: 1 No.**

Tube voltage 60 – 90 kV (adjustable by 1kVp)
Tube current 2 – 10 mA (adjustable by 1ma)

High Voltage Generator Frequency 100 - 200 kHz
Tube focal spot (IEC 60336) 0.5/0.7 mm
Total filtration > 2.5 mm eq. Al
Voxel Size - 80 Micron or better
FOV 10x14 cm or better
32 Bit
Integrated temple width measurement ensure automatically a patient specific orbit
patient immobilization positioning (1x forehead and 2x temple supports)
Patient positioning by Occlusal bite block, Chin Support.
Automatic adjustment to the jaw width
Automatic radiation management for different images
Remote control with exposure parameters and dual exposure control

Panoramic Programs:
Artifact reduced without ascending rami
Artifact reduced for children and adult
Constant magnification 1.25x for children and adult
Thick slice for anterior tooth region
Bitewing in the posterior tooth region

Bitewing in the anterior tooth region
3D programs included anterior, left and right molar, left and right TMJ
3D views partially tiltable 2D slices, TSA, LSA, axial, sagittal, coronal,3D model, implant oriented
Paranasal sinuses, linear slice orientation
Quick shot program
Indicate DAP
Auto CEPH Analysis with Un- Limited Installations

3D Sensor: Flat panel detector
3D Modes: Low dose, Standard and High Definition
3D Resolution: up to 80 µm in HD mode
Panoramic exposure time: 12 Second or better
Panoramic exposure time (quick shot) 9 second or better
CEPH exposure time: 10 second or better
CEPH exposure time (quick shot): 6 second or better
Useable to sitting/standing and wheelchair position
Remote Exposure controller with LCD display to show selected exposure parameters

Image Processing Software for patient data, filters and image analysis. Should be compatible with practice management software packages. The possibility to import and export DICOM, STL and CEREC data.
Implant Planning Software with built-in implant library, never tracing, Option of import of Intra Oral Scan (STL) for the planning of surgical guide. Unlimited Software Licenses
Built-in DICOM support software for image printing on DICOM Printer
Phantoms to be supplied with complete calibration instructions.
Installation and all accessories must be included, including lead lining as per PNAC.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4th to 10th year.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
At least 5+ installation in Pakistan (Satisfactory certificate including date of installation, make model and serial number signed by Biomedical Engineer and Institution Head)
Must have trained engineer in Karachi.
Origin: USA / EUROPEAN UNION / UK / JAPAN, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution
Branded PC with following configurations:
Ci5 9th Gen or better, 16GB RAM, 2TB Hard Disk, 2GB Dedicated Graphic Card & 19" HD LED Monitor with Keyboard & Mouse
Pure Sine wave Online UPS to take load of X-ray, PC and DICOM Printer with 10-15 Backup time
DICOM Printer - Fujifilm (Laser Imager with 2x Trays)
Film Sizes (inch) 8x10, 10x12, 11x14 & 14x17

Item No. 6	Digital Sensor for Dental Radiography	Quantity: 6 Nos.

True image resolution: > 18 lp/mm
Sensor technology with optical fiber
Connection: USB – high speed or wireless
Pixel size: 15 µm x 15 µm
View delay: <5 sec
Hermetically sealed housing ensures effective infection control
Three different size of sensor including pediatrics and bit wing imaging
Number of pixels: 1200 x 1600 or better
3 Year warranty
Level of Protection: IP67

Free Software upgrade for lifetime
Software to be compatible with Windows 10
Or equivalent
Installation and all accessories must be included
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
OEM: US/Japan/EU or fulfilling (CE/FDA/MHWL + ISO 13485, IEC 61010-1)
At least 10+ installation in different intuitions across Pakistan

Item No. 7	Furnace Sintering	Quantity: 1 No.

Maximum Pressing / Firing Temperature 1600 °C
ZrO2, ZirCAD and Al2O3 Ceramic Materials
Chamber Dimensions: 4 Liter
Computerized Auto Control / Calibration
10 user-programable programs with up to 4 stages
Up to 3 uniquely designed, lidded sintering trays can be stacked
Delta-T (K): ±5
Cooling time (h): 8 8
Vacuum Level: 500 - 1060 mbar
Delay start time up to 8 hours
HEAT RATE: 1 – 104°F/min. (1 – 40°C/min.)
Or equivalent
Installation and all accessories must be included
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.
Must have installed and successfully maintain 5+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided) with certified trained engineers to be available in Karachi.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline
Origin: USA / EUROPEAN UNION / UK / JAPAN , Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution

Item No. 8	Dental induction Casting Furnace	Quantity: 1 No.

No preheating required, melting and casting should start immediately.
The interval time between two castings should be less than 3 minutes, for continuous casting.
Power Consumption: 2400 -3000W
Motor: 300 - 400W
temperature range from 800 to 2000° C
Centrifugal Rev: 500-600rpm
Centrifugal Radius: 21cm
Casting Method: Centrifugal Casting

Max. Melting Amount: 50g
Heating Method: Medium Frequency Induction Heating
Melting Time: 30g≤65sec
Cooling Fashion: Air Cooling
Standard accessories:
4 ring holders,
4 rings of stainless steel,
1 universal rubber sprue former
1 crucible per type,
5 ceramic stirring rod,
1 pair of safety goggles.
Installation and all accessories must be included
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.
Must have installed and successfully maintain 5+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided) and authorized as sole distributor with certified trained engineers to be available in Karachi.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution

Item No. 9	Digital Dental X-Ray Machine DC Type (Mobile)	Quantity: 4 Nos.

Compatible with Digital Sensors, PSP Image Plate Scanners and Traditional Films
Scissor arm from the original manufacturer
Microprocessor controlled
Tube Current 3-8mA or better
Tube voltage 60-70 kV or better
Exposure time automatic adjustable
Patient types: Child and Adult
Automatic Selection of dose by Tooth selection
Timer with integrated circuit
Tube head with 360° rotation and beam limiter
Power on light signal, x-ray emission light signal
Focal point 0.7mm or better with filtration system
Total filtration: 1.5 mm Al
Target angle: 19 ~ 20°
Time Set-up function: 0.05 ~ 1.35 sec (Film/Digital included)
Power supply 220V/50Hz single phase
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 50 units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided) and authorized as sole distributor with certified trained engineers to be available in Karachi.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied,
Must have all tool, instruments and calibration equipment in Karachi (list to be enclosed)

End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline
Must comply with 510(k) FDA (Food & Drug Administration) / European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
Origin: USA / EUROPEAN UNION / JAPAN, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and installation in 20+ reputable institution

Item No. 10	Autoclave (Double Door) (120 - 160 L)	Quantity: 2 Nos.

High pressure steam sterilizer each with built-in Electrical Stem Generator in standard configuration and option for external steam supply.
Double Door and gasket channel should be formed from a single piece stainless steel
Chamber Capacity: 120 to 160 Liter
5 inch Color TFT LCD Screen on both loading and unloading sides.
Temperature and pressure recorder.
Chamber pressure indicator.
Preset programs for the most common sterilization processes for general-purpose hospital use.
Standby, Auto sleep and auto warm up functions to save electricity and time, and low water consumption.
Mechanical air removal with a series of vacuum/pressure pulses to effectively remove air for assuring sterilization.
The chamber dimensions are adapted to sterilization, using wire baskets according to SPRI & ISO, or containers according to DIN.
Human friendly mobility during Transport with heavy duty casters and firm fixing mechanism after installation.
Chamber, jacket, doors, generator and Pipes AISI 316 L/Ti stainless steel with proper insulation.
Device should operate with Stainless Steel AISI 316 Grade pneumatic valves only
Side panels should be free of screws and attached with firm fasteners for instantaneous access into the service area.
Application:
A sterilizer for general-purpose steam sterilization of surgical instruments, textiles, liquids, fluids and hospital utensils in central sterilization departments, operation departments, laboratories and laundries.
The temperature range is from 105°C–135°C.
Standard Sterilization Cycles:
134oC High Cycle for Surgical Instruments
134oC High Special for Linen/Gowns
121oC Low Cycle for Silicone Implants
121oC for Rubber Goods
134oC High Cycle for Prion
134oC High Flash Cycle
121oC Low Cycle for Liquids
Test/Diagnostic programs:
Bowie & Dick Test.
Vacuum Leak Test.
Accessories: -
· Complete with all standard accessories and removable shelves, capable of taking both, packets and containers of all standard sizes.
· One loading and unloading trolleys and loading Shelve compatible with the system.
UPS for controller with backup of 30 min
Must include compatible RO system and Air compressor (as per manufacturer recommendation), make and model must be quoted.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.
Must have installed and successfully maintain 30+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),

At least 2 certified trained engineers to be available in Karachi.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a foreign trained specialist along with training material as per manufactures guideline.
Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution
demo/physical inspection may be requested by technical team.

Item No. 11	Ultrasonic Cleaner	Quantity: 1 No.

Cleaning chamber constructed of corrosive resistant 304 SS.
Heating thermostatically controlled.
Digital display of time and temperature.
Control panel window should have degassed time setting, cleaning time from 0-99 min & temperature setting up to 70 C.
The machine should have capacity to memorize 8-10 programs & Quick program function to start quickly.
Tank Capacity 21 Liter or above. System with basket, lid and other standard accessories.
Operation 220V, 50 Hz.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 30+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution
demo/physical inspection may be requested by technical team.

Item No. 12	Automatic Tissue Processor	Quantity: 1 No.

Average capacity: 100 - 110
Temperature setting range: 35 - 70°C
Overtemperature release: 75°C >(± 5°C)
Temperature accuracy: +/- 1 °C
Fill Vacuum: -70 kPa(g)
Delayed 'end-time': programmable, (in average up to one week)
Reagent stations – Number of vessels: 10 (1.6- 2 liters ea.)
Paraffin stations– Number: 2 (1.6- 2 liters ea.)
Clean cycle bottles: average 3
Voltage supply: 230- 240 V, 50/60Hz
Fume extraction system, with active charcoal filter
Should be an open system capable of using standard cassettes from open markets.
Automatic in process reagent and wax rotation facility.

Movement of reagents with vacuum and positive pressure.
Preheating facility.
Vacuum selection at any step.
Remote alarm to signal possible problems and reagent change etc.
Optional:
SS basket Rotor - 01
SS tissue basket- 01
Aluminum reagent vessels of 1.6-2 liter capacity each-10
Beaker covers- 11
SS wax baths, tissue capsules with perforations- 02
Cassettes-1000
Fume containment shield with Fume outlet Tubes, Activated carbon filter Receptacle and Vacuum function.
Stainless steel counterweight to keep the samples submerged.- 01
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.
Must have installed and successfully maintain 10 units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided), and authorized as sole distributor with certified trained engineers to be available in Karachi.
The contractor will also provide a hard copy and digital copy of installation manual, technical documentation of part, operational manuals, technical manuals, maintenance/Service manuals, software to the end-user.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline till familiarity with the system
Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (other countries may be accepted if standards are as per requirements and has more than 20 functional installations in Pakistan)

Item No. 13	Refrigerated Centrifuge Machine	Quantity: 1 No.

Speed Range: 13000-15000rpm, Max. RCF: 20000 - 30000 RCF
Speed accuracy: ±15rpm
Rotor with Adapter: (1.5ml-2ml) *(12-24), hematocrit
Run Time: 30sec-99min/Continuous
Motor: Brushless DC
viewing port in the lid
one-hand lid lock
lid dropping protection
emergency lid lock release
Temperature: -5 °C to +40 °C per 1 °C increment
200 – 240 V, 50 – 60 Hz, 400 VA
Noise < 56 dB (A)
Safety Devices: Door interlock, Overspeed detector; Automatic internal diagnosis
Acceleration/Braking time Multi step
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.
The contractor will also provide a hard copy and digital copy of installation manual, technical documentation of part, operational manuals, technical manuals, maintenance/Service manuals, software to the end-user.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be

provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline till familiarity with the system
Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (other countries may be accepted if standards are as per requirements and has more than 20 functional installations in Pakistan)

Item No. 14	Thermocycler	Quantity: 1 No.

96-well plate
Maximum ramp rate, 4°C/sec
Average ramp rate, 2.5 °C/sec
Temperature range: 4–99°C
Temperature accuracy: ±0.5°C of programmed target
Temperature uniformity ±0.5°C well-to-well within 30 sec of arrival at target temperature
Input power: 220–240 VAC, 50–60 Hz
Display 5 " screen
Memory: 400 programs internal; unlimited with USB flash drive expansion
Or equivalent
Installation and all accessories must be included, must have at least 10 functional installation in Pakistan
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.
The contractor will also provide a hard copy and digital copy of installation manual, technical documentation of part, operational manuals, technical manuals, maintenance/Service manuals, software to the end-user.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline till familiarity with the system
Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (other countries may be accepted if standards are as per requirements and has more than 20 functional installations in Pakistan)

Item No. 15	Tissue Drying Oven / Hot Air Oven	Quantity: 1 No.

Temperature +20°C to +80°C
Slide capacity: 400 in 5 mins
Timer 1 min to 99 hours, digitally adjustable
2 grid shelfs
Chamber volume 17+ L
1000 – 1500 Watt
Or equivalent
Installation and all accessories must be included
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.
The contractor will also provide a hard copy and digital copy of installation manual, technical

documentation of part, operational manuals, technical manuals, maintenance/Service manuals, software to the end-user.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline till familiarity with the system
Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (other countries may be accepted if standards are as per requirements and has more than 20 functional installations in Pakistan)

Item No. 16	Tissue Embedding Stations	Quantity: 2 Nos.

Manual lever and foot switch for paraffin dispensing
Adjustable magnifying glass Ergonomic hand rest
Spacious and heated paraffin collection tray
paraffin container
5-inch display
Two heating trays for 100 cassettes
Working area with LED light Intuitive control panel
Electrically heated forceps
Integrated heated wax trimmer
Dispensing module:
Temperature range up to 50-75°C (1°C increments) for paraffin container up to 70 °C (1°C increments) for working area down to -5°C for cooling spot
Capacity 4 liter paraffin
Cooling spot 2" x 2", Peltier
Forceps holders 2 x 4 adjustable (magnetic)
Illumination 3 LED spots fixed + 3 LED spots adjustable
Magnifier included,
Paraffin flow activation manually or by footswitch continuously adjustable flow rate
Prewarming Module:
Temperature range up to 80°C (1°C increments) for working area
Electrical parameters 220, 50/60 Hz Consumption Pmax: 350-400 W
Or equivalent
Installation and all accessories must be included
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.
The contractor will also provide a hard copy and digital copy of installation manual, technical documentation of part, operational manuals, technical manuals, maintenance/Service manuals, software to the end-user.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline till familiarity with the system
Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (other countries may be accepted if standards are as per requirements and has more than 20 functional installations in Pakistan)

Item No. 17	Tissue Floating Bath	Quantity: 1 No.

Temperature Accuracy
Length 36 cm
L.E.D. illuminated black background with transparent Borosilicate dish
Slide Dryer Block
Temperature Set Range Ambient +5° C to 65°
Digital display
Or equivalent
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.
The contractor will also provide a hard copy and digital copy of installation manual, technical documentation of part, operational manuals, technical manuals, maintenance/Service manuals, software to the end-user.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline till familiarity with the system
Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (other countries may be accepted if standards are as per requirements and has more than 20 functional installations in Pakistan)

Item No. 18	Centrifuge Machine 15000rpm	Quantity: 2 Nos.

Speed Range: 13000-15000rpm, Max. RCF: 20000 - 30000 RCF
Speed accuracy: ±15rpm
Rotor with Adapter: (1.5ml-2ml)*(12-24)
Run Time: 30sec-99min/Continuous
Motor: Brushless DC
viewing port in the lid
one-hand lid lock
lid dropping protection
emergency lid lock release
200 – 240 V, 50 – 60 Hz, 400 VA
Noise < 56 dB (A)
Safety Devices: Door interlock, Overspeed detector; Automatic internal diagnosis
Acceleration/Braking time Multi step
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have at least 5 installations
The contractor will also provide a hard copy and digital copy of installation manual, technical documentation of part, operational manuals, technical manuals, maintenance/Service manuals, software to the end-user.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments, and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline till familiarity with the system
Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (other countries may be accepted if standards are as per requirements and has more than

40 functional installations in Pakistan)

Item No. 19	Centrifuge Machine 5500rpm	Quantity: 2 Nos.

Speed Range: 0-5500rpm
Speed accuracy: ±20rpm
Rotor with Adapter:
6 x 15 mL (fixed angle)
6 x 10 mL (swinging bucket)
Run Time: 30sec-99min/Continuous
Motor: Brushless DC
viewing port in the lid
one-hand lid lock
lid dropping protection
emergency lid lock release
200 – 240 V, 50 – 60 Hz, 400 VA
Noise < 56 dB (A)
Safety Devices: Door inter lock, Overspeed detector; Automatic internal diagnosis
Acceleration/Braking time Multi step
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.
The contractor will also provide a hard copy and digital copy of installation manual, technical documentation of part, operational manuals, technical manuals, maintenance/Service manuals, software to the end-user.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline till familiarity with the system
Must comply with 510(k) FDA (Food & Drug Administration) /European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (other countries may be accepted if standards are as per requirements and has more than 40 functional installations in Pakistan)

Item No. 20	Binocular Microscope	Quantity: 58 Nos.

High resolution, with built in mechanical stage
Binocular head rotatable 360 degrees.
10x eyepieces.
4X,10x 40x, 100x and oil immersion achromatic objectives.
Coaxial coarse and fine adjustment knobs
LED illumination with adjustable brightness
Pre-Cantered and Pre-Focused condenser, Dust cover
All standard accessories and installation included
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must comply with 510(k) FDA (Food & Drug Administration) /European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (other countries may be accepted if more than 100 functional installations in Pakistan)

Item No. 21	Multi Head Teaching Microscope for 05 persons	Quantity: 1 No.

Infinity optical system
Built in Koehler illumination with LED illumination, High luminescent white LED illuminator 60,000 to 100,000 hours lifetime
Built in fly-eye lens, Light intensity management features, Light intensity is automatically adjusted
Coaxial coarse & fine focusing (located on both sides)
Focusing stroke: Up 5 mm/Down 13 mm, coarse: 37.7-40 mm per rotation
Focusing Fine: 0.2 mm per rotation, minimum reading: 1-2 μm with coarse focus knob torque adjustment ring and stage vertical movement stopper
Eye Pieces: 10x (F.O.V. 22mm) Eye Pieces Diopter adjustment in both eyepieces and inter pupillary distance adjustment
Binocular Tube with 30 degrees inclination F.O.V 20-25 mm
Quintuple Nose piece
Rectangular mechanical stage within main body,
specimen holder up to 2L and vernier calibrations,
cross travel: 74 (X) x 50 (Y) -76 (X) x 52 (Y) mm or equivalent
Plan Achromat 2X N.A. 0.10, W.D. 25-30.0 mm
Plan Achromat 4X N.A. 0.10, W.D. 25-30.0 mm
Plan Achromat 10X N.A. 0.25, W.D. 10.5-15.0 mm
Plan Achromat 40X N.A. 0.65, W.D. 0.56 mm, Spring-loaded
Plan Achromat 100X Oil N.A. 1.25, W.D. 0.20 mm spring loaded oil immersion
Abbe Condenser, N.A. 1.25 vertical adjustment focusing stroke: 27mm
Polarizer P-SA Analyzer & E2-DP Simple Polarizer / CN
Observation methods: Bright field, Simple Polarizing
Fungus Proof Treatment: Fungus Proof coating
Accessories: Teaching unit for face to face observation.
-Pointer unit.
-AC/DC Adaptor for Pointer Unit.
-Binocular tube.
-10x with diopter adjustment.
Power Supply: AC/DC adapter Input :100-250VAC

Optional: Compatible camera and other optional accessories must be quoted.

Installation and all accessories must be included
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 5+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided) and authorized as sole distributor with certified trained engineers to be available in Karachi.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
Demonstration may be requested for Technical Evaluation
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution

Item No. 22	Microtome	Quantity: 2 Nos.

Fully automated rotary microtome
Automated sectioning can be operated via velocity knob
Accidental start prevented by double click operation
Ergonomic removable control panel can be located on either side of the microtome
Memory function for specimen (Hard and Soft) positioning
Touch-pad / keyboard to select section thickness sectioning mode, speed and memory function
Easy switch between thickness setting for TRIM and powerful Sectioning motor
Rapid Refrigeration Mode allows desired temperature drop in 60 Minutes
Quick Freeze shelf: ≤ - 50°C
Maximum specimen: 35x 35mm or better
X/Y fine orientation with reproducible zero positioning
Automatic brake following motorized action
Easily accessible emergency stop button
4 motorized modes of operation (single section, interval, multi sections, and continuous
Programmable cutting window
Specimen retraction / can be deactivated
Longest stroke length available (adjustable 60-70mm) allows high quality sections even of Macro / Super Mega cassettes
Large removable section waste tray covers entire working area
Total Specimen Advance: 28mm
Section Thickness Range: 0.5 - 100µm
Trim Thickness Range: 5 - 300µm or more
Retraction: 40µm
Sectioning Speed: 0 - 450mm/s
Built in battery Back/UPS(Imported)
Installation and all accessories must be included
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 10+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided) and authorized as sole distributor with certified trained engineers to be available in Karachi.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
Demonstration may be requested for Technical Evaluation
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline
Origin: USA / EUROPEAN UNION / UK / JAPAN, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 25+satisfactory installation in reputable institution

Item No. 23	Hot Plate with magnetic stirrer	Quantity: 1 No.

Chemical resistant ceramic coating hot plate
Controls are at the front of the hot plate and the digital thermostat
allows selection of operating temperatures in 40-250 C.
Rotation and heating can be adjusted individually
Power Requirements: 220V 50 HZ.
Stirring rate 400~1500rpm
Stirring capacity 2000ml or better

Plate Material Stainless steel AISI 304 or equivalent
Installation and all accessories must be included
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must comply with 510(k) FDA (Food & Drug Administration) /European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (other countries may be accepted if more than 100 functional installations in Pakistan)

Item No. 24	Data Acquisition and Analysis System	Quantity: 1 No.

The System Should be able to record the Pulse, respiration, Bio-potentials like (EEG, ECG, EMG, EOG etc), hand Grip Strength, BP, heart sound , HRV (Heart Rate variability), Reflex & reaction time, Peak Analysis, Pulse Transit Time and Pulse plethysmograph, GSR (Galvanic skin Response) and temperature, Static Posturography and body sway analysis, nerve and muscle animal experiments etc.

Number of inputs 4 channels.
Dual Channel bio potential recording capability for ECG, EMG, EEG, EOG etc.
Constant Current & Constant Voltage Isolated stimulator unit with Current range 0- 20mA, compliance voltage 100V, Integrated and synchronized with software.
Data Sampling frequency more than 200Khz and linked to the computer through high speed USB
Facility for ECG leads (I, II, III, aVL, aVF, aVRetc) with real time cardiac axis and vector analysis.
The Software with step by step instructions, protocol and experimental design for performing various experiments in physiology teaching applications.
The Software should have Preconfigured Experiments with sample data for Frog Heart:- Temperature Effects, Starling's Law of the Heart, Drug Effects, Conduction Block, Hear Refractory Period, Vagal Escape, Frog Neuromuscular Junction:- Twitch Recruitment – Nerve, Muscle, force, latency, fatigue, Tubocurarine etc, Frog Sciatic Nerve & Skeletal Muscle.
The Software should allow user to customize the course content as per the departmental need.
Should have software controlled filtering High Pass, Low Pass filters, AC Coupling, Digital filters, band pass filter & Main filters.
Display Modes: - Must have Simple Chart View, Scope View, XY View, Zoom View, FFT, Spectrum, averaging view etc.
Facility to perform complete heart rate variability analysis (Time & Frequency domains), ECG interpretation, PQRST amplitudes and ST elevation, cardiac axis analysis during exercise.
Export formats should allow export Binary, Axon, IGOR, MATLAB, QuickTime, Wav, Text etc.
Cyclic Measurements: Rate, period, frequency, count, minimum, maximum, height, integral, variance, derivative, Arithmetic & mathematic formulae, Spectrum Analysis.
Real time data streaming with Excel, Matlab and other common formats.
It should have various automatic analysis modules for ECG, HRV, Blood Pressure, Peak analysis, spike histogram etc

Transducers and accessories :-
Pulse Transducer, Respiratory Belt Transducer, Sphygmomanometer,, Push Button Switch, 5 Lead Shielded Bio Amp Cable, Shielded Lead Wires (5 Snap-On), Stimulating Bar Electrode, Cardio Microphone, Headphones, Reusable ECG Electrodes, EEG Flat Electrodes, Earth Strap, Disposable ECG Electrodes (100 pack), Grip Force Transducer, Abrasive Gel, Electrode Cream, Electrode Paste (3 pack), Alcohol Swabs (1000 pack), system Case.
The spirometry flow head (1000L) and amplifier with automated analysis software module.
Psychophysiology kit for GSR and temp recording transducers.
Four sensor based balance board/plate wireless for sway analysis/posture studies to be provided.
The Nerve and Muscle set up for animals studies should have Teaching Force Transducer (0-500g) , Animal Nerve Stimulating Electrode, Nerve Chamber with Stimulator Cable, Input Cables), Shielded Lead Wires Alligator type, Muscle Holder

and Manipulator and stand.
Necessary certificate IEC, ISO and other safety & quality certificate for safe use for human and animals.
Computer with Printer Complete (Locally arranged with latest specs as per manufacture guideline)
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4th to 10th year.
Must have installed and successfully maintain 10 units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided), and authorized as sole distributor with certified trained engineers to be available in Karachi.
The contractor will also provide a hard copy and digital copy of installation manual, technical documentation of part, operational manuals, technical manuals, maintenance/Service manuals, software to the end-user.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline till familiarity with the system
Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (other countries may be accepted if standards are as per requirements and has more than 20 functional installations in Pakistan)

Item No. 25	**Deep Freezer -40 ^{o} C**	**Quantity: 1 No.**

Temperature Range(°C): -10~-40 Uniform
Capacity(L): 200 -250 (Upright)
Adjustable Drawers: 4-8
Optional(LN2/CO2 backup systems and chart recorder)
Energy Consumption (kW-hr/day): 7-10
Sound dB: 58
Hermetic Compressor for Low Temperature Application
Remote Alarm Terminals
Microprocess Control
All-Direction Casters with locks
Interior: Stainless Steel
Refrigerant: CFC Free
Insulation: R-30 or Better
Line Voltage Indicator, Voltage Compensation Buck/Boost
Power Supply(V): 200-240 Power(W): 400 - 800
Installation and all accessories must be included
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4th to 10th year.
The contractor will also provide a hard copy and digital copy of installation manual, technical documentation of part, operational manuals, technical manuals, maintenance/Service manuals, software to the end-user.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
Must comply with 510(k) FDA (Food & Drug Administration) /European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)

USA/EU/Japan (other countries may be accepted if they have more than 20 functional installations in Pakistan)

Item No. 26	Incubator	Quantity: 3 Nos.

Incubator 37° C - Outer case, inner case and front door manufactured with 18/10 stainless steel, insulated with high grade glass wool.
Door with silicon gasket and lock key. Front see-through inspection window.
Heating elements shielded with 316 stainless steel.
Adjustable mesh shelves manufactured with 316 stainless steel.
Forced air ventilation.
Safety thermostat.
Thermometer with digital display and controller
Possibility of continuous running: 0-120 min.
Capacity not less than 50 liters
Power Requirements - 220 ± 10% V. 50 Hz.
Installation and all accessories must be included
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.The contractor will also provide a hard copy and digital copy of installation manual, technical documentation of part, operational manuals, technical manuals, maintenance/Service manuals, software to the end-user.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
Must comply with 510(k) FDA (Food & Drug Administration) /European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (other countries may be accepted if they have more than 20 functional installations in Pakistan)

Item No. 27	C-Arm	Quantity: 1 No.

C-Arm for Radiography and Fluoroscopy High frequency generator with 2.5 KW or more output
40 to 110KV with continuous Fluoroscopy facility at 7mA or more Automatic shut off after 10sec continuous expose
C-Arm should have ± 45 degrees motorized rotation in both orbital and axial directions Continuous Fluoroscopy mode: 0.2 - 7mA or more
Pulse Fluoroscopy Mode: 0.2 - 20mA or more
Built-in hard disk for image storage
Dual Focal spots 0.6 mm and 1.2mm
Anode heat storage capacity should be 100 KHU or more
Automatic Object Tracking facility
Automatic kV and mA optimization
Automatic Fluro dose control with single and cumulative dose rate display Dual image intensifier system of 9-inch size each
High sensitivity CCD camera with 1024x1024 pixels resolution Memory for last image hold and last cine loop hold
Auto storage facility for 100,000 or more images
Display: Two (18") LCD medical grade monitors, on separate Mobile Trolley, flicker-free medical grade LCD having 2MP resolution
A/D Conversion Depth should be 12-BIT or better
Motorized IRIS Collimator

Automatic Collimator adjustment with the SID
Emergency switches on control unit and C-Arm Fluoroscopy footswitch: One cassette holder 24x30cm
Laser Pointing / localizer device, lights cross beam type DICOM 3.0 compatible (Print, Store, Worklist)
Motion Adaptive Recursive filtration and integration for noise suppression. Automated Histogram based Image Brightness and Contrast Optimization User Interactive Contrast and Brightness Adjustment
Panoramic real time image acquisition
Automated stitching algorithms to acquire full-length images of both planes Adaptive Edge and contrast enhancement
Horizontal and vertical image flipping Real time digital image rotation
Image Inversion, zoom, annotation, real time sharpening and denoising DSA software should be provided.
Bidder Will be responsible for arrangement of all installation requirements, console, Electric DB, lead shielding, UPS Installation for room finishing / preparation.

ACCESSORIES: (2 Set)
- Lead Apron
- Lead Neck Collar
- Lead Googles
- Protective Lead Cap
- Gonad Protector
- Thyroid shield

Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4th to 10th year.

Must have installed and successfully maintain 15+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided) and have certified trained engineers to be available in Sindh

The contractor will also provide a hard copy and digital copy of all installation manual, technical documentation of part and FMI installed on the system, operational manuals, technical manuals, service manuals, software to the end-user/Engineer.

End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline.

Must comply with 510(k) FDA (Food & Drug Administration)/ European [MDD 93/42/EEC] (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model (Any 2)
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)

USA/EU/Japan (Other country will be accepted if 50+ number of functional units are installed in Pakistan)

Item No. 28	**Operating Head Light LED**	**Quantity: 3 Nos.**

LED Head Light Source
Head band carrying Battery with connection to the light with rechargeable battery and charger
The system should be with complete all standard accessories.
Should have 3 years comprehensive warranty.

Must comply with 510(k) FDA (Food & Drug Administration)/ European [MDD 93/42/EEC] (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (Other country will be accepted if 50+ number of functional units are installed in Pakistan)

Item No. 29	OT Table for OMFS and General Surgery	Quantity: 3 Nos.

Weight bearing capacity of 250kg or more
5 Sectional operation Table with two leg section.
Table top equipped with radiolucent material.
The mattress covers with washable, antistatic material.
X-ray Cassette holder for X-Ray and C-Arm facility
Sliding table top at least 250mm or more
Electric Height adjustment: 730 to 1000 mm or more.
Electric Trendelenburg and Reverse Trendelenburg: 25° degree and -25° or better.
Electric lateral tilt: 30° degree and -30° degree or better.
Manual or electric backrest adjustment:70° degree and -15° degree or better. (Both are acceptable)
Manual leg section adjustment: 20° degree and -90° or better.
220-230 V, 50 Hz.
Hand control unit.
Override panel in the column or Wireless remote for back up control in emergency cases.
Battery backup control of table in case of main power failure.
Accessories:
1. Pair of Arm rest with clamp
2. Anesthesia screen
3. Large width body strap
4. Adjustable bottle holder rod
5. Shoulder support
6. Pair of Knee Crutches.
7. Lateral Support.

ACCESSORIES:
Eye/ ENT head rest
And all accessories suitable to OMFS Surgeries

Should have 3 years comprehensive warranty including service, spare parts, consumables on manufactures letter head.

Must have installed and successfully maintain 25+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided) and have certified trained engineers to be available in Sindh

The contractor will also provide a hard copy and digital copy of all installation manual, technical documentation of part and FMI installed on the system, operational manuals, technical manuals, service manuals, software to the end-user/Engineer.

Must have fully equipped workshop in Karachi.

End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline.

Must comply with 510(k) FDA (Food & Drug Administration)/ European [MDD 93/42/EEC] (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model

Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)

USA/EU/Japan (Other country will be accepted if 50+ number of functional units are installed in Pakistan)

Item No. 30	Ceiling OT Light Double Head	Quantity: 3 Nos.

LED shadow less operation theatre ceiling light, hermetically sealed dust proof.
Adjustable light intensity 160000 LUX at 1 meter distance.
Satellite combination of 160000 LUX at 1 meter.
Color temperature 4000°-4500° Kelvin.
Electronic control panel for light Parameter's adjustment
Dimming range 5-100%
Color rendition index of 96 or more.
LED life 50,000 hours or better.
Autoclavable handles.
Operating Voltage 220V, 50Hz
(Optional Must be quoted) HD Camera with 30x optical and 12x digital zoom, 24 inch display and all accessories.

Should have 3 years comprehensive warranty including service, spare parts, consumables on manufactures letter head.
Must have installed and successfully maintain 25+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided) and have certified trained engineers to be available in Sindh
The contractor will also provide a hard copy and digital copy of all installation manual, technical documentation of part and FMI installed on the system, operational manuals, technical manuals, service manuals, software to the end-user/Engineer.
Must comply with 510(k) FDA (Food & Drug Administration)/ European [MDD 93/42/EEC] (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (Other country will be accepted if 50+ number of functional units are installed in Pakistan)

Item No. 31	Fiber Optic Bronchoscope	Quantity: 1 No.

State of art for lungs diagnostic and therapeutic procedures
With suction facility
Fully immersible and re-processible
Direction of view : 0o forward
Depth of field : 3 - 50mm
Angle of View: 85° - 120o
Channel Diameter: 2.0mm – 2.8 mm
Distal Tip Diameter: 4.8mm – 6.0 mm
Insertion tube diameter : 4.8mm – 6.0mm
Working Length: 540mm - 600 mm
Angulations: Up (140o – 200o)
Angulations: Down : (90o – 160o)
System should have capability to attach with generic recording system
LED Light Source
ACCESSORIES:
Complete with standard set of accessories
Cleaning/maintenance kit
Case as per OEM
Pressure compensation cap
Leakage tester
Biopsy forceps
Grasping biopsy
Should have 3 years comprehensive warranty including service, spare parts, consumables on manufactures letter head.

Must have installed and successfully maintain 5+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided) and have certified trained engineers to be available in Sindh
The contractor will also provide a hard copy and digital copy of all installation manual, technical documentation of part and FMI installed on the system, operational manuals, technical manuals, service manuals, software to the end-user/Engineer.
Must comply with 510(k) FDA (Food & Drug Administration)/ European [MDD 93/42/EEC] (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (Other country will be accepted if 20+ number of functional units are installed in Pakistan)

Item No. 32	Syringe Pump	Quantity: 4 Nos.

Flow Rates: 0.1 - 400 ml/hr.
Digital display of set parameters.
Universal Syringe acceptance capability for disposable, Plastic, Size, 10, 20, 50, 60 ml.
Drive Accuracy. ±3%
Display of drug name, Infusion rate, infused volume and volume to be infused.
Automatic adaptation of controls according to syringe /infusion set.
Quick freed/rapid infusion facility.
Rechargeable battery and mains operated 220V, 50Hz.
Safety alarm audible and acoustic for occlusion end of infusion, low battery.
Battery back up 3 to 4Hours.
Should be compatible with docking station
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.

Must have installed and successfully maintain 100 units across Pakistan (list must be provided as per form) and authorized as sole distributor with certified trained engineers to be available in Karachi.
The contractor will also provide a hard copy and digital copy of installation manual, operational manuals, technical manuals, maintenance manuals, software.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline
Must comply with 510(k) FDA (Food & Drug Administration), and European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labour & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (Other country will be accepted if 200+ number of functional units are installed in Pakistan)

Item No. 33	Anesthesia Machine with Electronic Ventilator	Quantity: 3 Nos.

Should be Compact, ergonomic & easy to use
Color TFT display of at least 7” size, with virtual flow meters for O2, N2O or Air
Dual flow sensing capability at inhalation and exhalation ports.
Should have back-up O2 control which provides an independent fresh gas source and flow meter, Control in case of electronic failure.
One no. yoke each for Oxygen & Nitrous Oxide. Separate Pipeline inlet for Oxygen, Nitrous Oxide and Air
Hypoxic Guard to ensure minimum 25% O2 across all O2-N2O mixtures and Oxygen Failure Warning Breathing system
1. Latex free fully autoclavable.

2. Flow sensing capability at inhalation and exhalation ports, sensor connections shall be internal to help prevent disconnect.
3. Sensor should not require daily maintenance.
4. Bag to vent switch shall be bi-stable and automatically begins mechanical ventilation in the ventilator position.
5. Adjustable pressure limiting valve shall be flow and pressure compensated.

Vaporizers
New generation Vaporizer must be isolated from the gas flow in the off position and prevent the simultaneous activation of more than one vaporizer.
Vaporizer should mount to a Selectatec manifold of 2 vaporizers, which allows easy exchange between agents.
Temperature, pressure and flow compensated vaporizers and Maintenance free - for Isoflurane, Halothane, and Sevoflurane
Ventilation
The workstation should have integrated Anesthesia Ventilator system.
Ventilator should have Volume Control and Pressure Controlled and SIMV modes. PSV and Apnea backup
Ventilator should have a tidal volume compensation capability to adjust for losses due to compression, compliance and leaks; and compensation for fresh gas flow.
The workstation should be capable of delivery of low flow anesthesia.
Ventilator should be capable of at least 80-150 L/min peak flow to facilitate rapid movement through physiologic “dead space” in the Pressure Control mode
Tidal volume (VT)) 20ml to 1600ml
Inspiratory/expiratory ratio (I:E) 1:0.3 to 1:6.0
Pressure limit (Plimit) 10 to 70cmH2O
Positive End Expiratory Pressure (PEEP) 4 to 30cmH2O

Monitoring Specifications:
Monitoring of vital parameters: ECG, NIBP, SPO2 and Invasive Blood Pressure. Screen 10+ inch
Twin temperature measurement with skin and rectal probes- Two sets with each monitor
Audio visual and graded alarming system

Anesthesia Gas Delivery system -01
Circle absorber -01
Ventilator -01
Monitor -01
Vaporizer Isoflurane -01
Adult autoclavable silicone breathing circuits -02 ea.
Temp probe Skin reusable- 02
Temp probe Rectal Reusable-02
Accessories Anesthetic gases-01 set
Standard accessories to make all parameters working- 01 set
HME filters: 50
Resettable overcurrent breaker shall be fitted for protection

1 -2-hour backup for the entire system

Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 20+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
Authorized as sole distributor with certified trained engineers to be available in Sindh.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied the end-user/Engineer.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer.
Must have all tool, instruments and calibration equipment in Sindh
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries is

acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 50+ installation in reputable institution
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)
Demo/physical inspection may be requested by technical team

Item No. 34	Dental Operating Microscope	Quantity: 1 No.

Integrated orange filter (530 nm) prevents premature curing of composites
Magnification steps of 6.4, 10, 16, 25, 40x
Long LED lifetime of approx. 60,000 hours
Able to adjust the parfocality with or without camera and monitor
Easily transfer images to patient file via the SD memory card or via USB
Cable-free, fully integrated full HD camera with 10MP images and video up to 1080 p for crystal-clear anatomical detail and true-to-life color
Video Output: HDMI and analog (PAL/NTSC selectable)
Objective with variable working distance from 200 mm to 300 mm
Vibration-minimizing bearings for fast stabilization
Eyepieces 8.33×, 12.5×
Tubes Inclined 45° binocular tube, f = 170 mm
UV and IR-free LED illumination
Adjusting the interpupillary distance
Splash protection for the objective lens
Vision Gard drapes for sterile work environment
Optics Double Iris diaphragm to increase the depth of field
Fine adjustable mechanical brakes for all rotation axis.
Rotation Angle: For column 360° - Swing arm +190°/–150° - Extension arm on swing arm ±150° - Microscope carrier on extension arm ±155° - Lateral microscope carrier movement ±60°
Travel range (up/down) 800 mm
Max. extension range 1775 mm
Power Supply(V/Hz): 200-240/50-60, Power consumption: 100-150 VA
Installation and all accessories must be included
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 5+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW)
Authorized as sole distributor with certified trained engineers to be available in Sindh.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied the end-user/Engineer.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer.
Must have all tool, instruments and calibration equipment in Sindh
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)
Demo/physical inspection may be requested by technical team

Item No. 35	Multiparameter Patient Monitor	Quantity: 3 Nos.

Display 12” or better color TFT/LCD/ LED
Standard configuration: ECG 5 lead, SpO2, NIBP, 2-TEMP, and Respiration
S-T and QT Analysis, Pacemaker detection, 18 or more Arrhythmias analysis should be detected and alarmed, QT/QTc,

NIBP: Range; 15-280 mmHg (± 10mmHg)
"Accessories: Reusable (Neonate, Peads Adult) set of NIBP, SPO2, ECG 5 Lead, IBP, Temp, Ground wire, power cable and other accessories required for operation as per specification"
Alarm: All parameters on/off selective independently
Power input 220Vac,50Hz
With Battery Backup time: Minimum 4 hours or better
Swivel base with accessories holder, wall or ceiling mounting Stand according to Hosp. requirements.
No fan design of the Main Unit to eliminate noise and potential infection risks.

Option for Upgrade (must be quoted);
EtCO2(side stream/mainstream/micro stream), 2-IBP, Monitor shall support layer 3 communications and automatic DHCP IP address allocation for wired/wireless IEEE 802.3 RJ45 network interface, HL7 complaint

Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 5+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) (any 2)
Authorized as sole distributor with certified trained engineers to be available in Sindh.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied the end-user/Engineer.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer.
Must have all tool, instruments and calibration equipment in Sindh
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and installation in 20+ reputable institution
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)
Demo/physical inspection may be requested by technical team

Item No. 36	Electrosurgical Unit	Quantity: 4 Nos.

Microprocessor based electrosurgical unit for normal and under water cutting usages. Automatic self-test function.
Operation in radio frequency range.
Controls for cutting, coagulation, spray and blends.
Monopolar cutting power of 280 - 300 watts with change of 05 watts or less increments.
Mono polar coagulation power of 120 Watts or more.
Bipolar coagulation power of 100 Watts or more.
Spray coagulation mode.
Different gradations of blending of cutting and coagulation power.
Digital display of all controls and set values of cutting and coagulation power.
Audio and visual alarms. 220V, 50 Hz.
Monopolar handle with cord.
Bipolar forceps with cord.
Attachment for monopolar coagulation.
Knife electrode.
Surgical electrode, ball-shaped.
Wire loop electrode.
Needle electrode.
Ball electrode.
Bipolar coagulation forceps.
Reusable patient plate.
Double paddle foot switch, explosion proof.
Trolley with lockable antistatic castors may be provided locally.
Installation and all accessories must be included

All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 5+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
Authorized as sole distributor with certified trained engineers to be available in Sindh.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied the end-user/Engineer.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer.
Must have all tool, instruments and calibration equipment in Sindh
510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW)
Origin: USA / EUROPEAN UNION / UK / JAPAN, Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)
Demo/physical inspection may be requested by technical team

Item No. 37	Bio-Decontamination System	Quantity: 1 No.

Mobile/Portable automatic bio-decontamination system for room air and surface disinfection of Hospital Wards, ICUs & Operation Theatre etc.
Must have effective on the room of volume up to 800 m3
The hydrogen per oxide ready to use disinfectant H2O2 6% or more according to approved
USA/Europe Standard for Health Facilities
Modern and Validate able Fogging technology.
Disinfection dispersal speed 3ml/m3 to 6ml/m3.
Automatic program on/off according to operational requirements.
Able to holds chemical for disinfection canister 2 L or more
Can also be used for disinfection in OT, ICU HVAC Duct and Hospital Highly sensitive areas.
Installation and all accessories must be included
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 5+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
Authorized as sole distributor with certified trained engineers to be available in Sindh.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied the end-user/Engineer.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer.
Must have all tool, instruments and calibration equipment in Sindh
510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW)
Origin: USA / EUROPEAN UNION / UK / JAPAN, Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)
Demo/physical inspection may be requested by technical team

Item No. 38	Defibrillator	Quantity: 4 Nos.

Defibrillator with 6” color monitor and recorder and built in rechargeable battery operated.
Semi-automatic 200 joules or better biphasic defibrillator with monitor and AED mode Charging time should be less than 6 seconds for 200 joules.
Bi-Phasic waveform delivery system, ECG through paddles and patient cable,

Contact Indicator to check for optimal skin contact via LED'S on paddles, delivered energy level to be printed on the print out.
Synchronized output with ECG.
Recorder speed 25mm/sec with standard paper of 80mm, digital HR with low/high alarm and Adult & Pediatric Paddles.
Control of energy charging/ delivering on main panel and paddle.
Pacing Pads should be reusable.
Low Battery Indicator: A "LOW BATTERY" message appears on the monitor
Patient Safety: All patient connections should be electrically isolated.
Sweep Speed: 12.5 mm/sec, 25 mm/sec, 50 mm/sec (user selectable)
Pacer Functions, Code Markers, CPR Dashboard.
Operating Time: At least 4 hours of continuous ECG monitoring.
Transfer all logs to USB/SD
Design Standards: Meets or exceeds applicable requirements of EN 60601-1, EN 60601-2-4, EN 60601-2-27, EN1789.
AC 220V / 50 Hz operated.
Built-in Rechargeable battery with charger having capacity of 150 Shocks in single charge.
ECG through Pads / paddles and 3 Lead ECG patient cable with arrhythmia detection
Alarms for High and low Heart rate, low battery warning.
Auto tester/self-check.
External pediatric and adults Paddles, ECG cable with reusable electrodes for adult & Peads.
AED pads (Qty 2)
Pacing facility
Waveform parameters adjusted as a function of patient impedance.
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW)
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 5+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
Authorized as sole distributor with certified trained engineers to be available in Sindh.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied the end-user/Engineer.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer.
Must have all tool, instruments and calibration equipment in Sindh
Origin: USA / EUROPEAN UNION / UK / JAPAN, Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 50+ installation in reputable institution
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)
Demo/physical inspection may be requested by technical team.

Item No. 39	**Infusion Pump**	**Quantity: 4 Nos.**

3+ inch Display
Modes: weight, Volume and flow rates
Delivery / Flow rate: 0.1-1100ml/h inc 0.01ml/h
Volume range 1-9999
Occlusion Limit low, Normal, High
Facility with keep vein open Rate
Anti-Bolus function, Titration function should be available
Volume infused display and Dynamic cannula pressure displayed on screen
Full alarm system.
Air in line detection.
Occlusion detection capability.
Vertical stand mobile type

Built-in battery backup: 6 hours or better
Water-Proof Grade : IP34 or Equivalent
Power requirements: AC: 100-240V; 50Hz
Data/keypad Lock Function to block unauthorized adjustments
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW)
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 15+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
Authorized as sole distributor with certified trained engineers to be available in Sindh.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied the end-user/Engineer.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer.
Must have all tool, instruments and calibration equipment in Sindh
Origin: USA / EUROPEAN UNION / UK / JAPAN, Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 80+ installation in reputable institution
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)
Demo/physical inspection may be requested by technical team.

Item No. 40	Video Laryngoscope with 3 reusable Blades	Quantity: 1 No.

3.5" Full View High Resolution Scratch-Resistant & Anti-Glare HD Monitor.
LED illumination
High Resolution Camera with Field Angle 66°.
Camera luminance; ≥800Lux
Auto Anti-Fog Function Upon Powering On.
Internal Built-in / Memory Card for Videos & Images.
Rechargeable Lithium Battery Pack for Long Backup.
Approximately Working Time; ≥300Minutes.
Reusable Blades Sizes; 00,0,1,2,3,4,5 Sizes.
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head.
Demo/physical inspection may be requested by technical team
Must have installed and successfully maintain 20+ units across Pakistan (list must be provided as per sample form),
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied the end-user/Engineer.
Origin: USA / EUROPEAN UNION / JAPAN, Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 50+ installation in reputable institution
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)

Item No. 41	Oscillating Saw	Quantity: 2 Nos.

Fully automatic load-compensation over the whole oscillating field
Slim and silent motor producing only 52-77 db depending on the selected oscillation, latest electronic system with various protection and security functions, special positioning of the motor protected by plaster dust, safety on/off switch, 230v,50hz or 110volt, 60hz, 500 watt or better, 6500 upto 24000 oscillation, 5 meter cable with EU plug, light weight, double protection isolation, battery operated, with all standard accessories required by end user.
Touch screen color control unit with integrated irrigation pump, single pedal foot control unit, control adjust rotational speed: min 30% >default max> 100%) > default > max100%), reverse flush continuous 100% irrigation when depressed; disable function to the selected foot control button.

Motor Cable autoclavable.
Reverse/forward 80-200 W high speed motor for different types of handpiece with 70,000 -80,000rpm, reciprocating handpiece speed 18,000-20,000 min, stroke length: 2.5mm, sagittal saw attachment, speed 18,000-20,000 min, Angle of Oscillation 80. Angled handpiece 80,000 rpm, medium size with irrigation nozzle.
Adaptor for oscillating intra oral blades, sagittal and oscillating saw blade for intra oral, reciprocating saw blade, diamond burs for angled handpiece, sterilization case, lubricant oil for cleaning.
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW)
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.
Demo/physical inspection may be requested by technical team.
Must have installed and successfully maintain 5+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
Authorized as sole distributor with certified trained engineers to be available in Sindh.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied the end-user/Engineer.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer.
Must have all tool, instruments and calibration equipment in Sindh
Origin: USA / UK / JAPAN/ Germany, Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and installation in 20+ reputable institution
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)

Item No. 42	Ceiling Mounted Anesthesia Pendant	Quantity: 3 Nos.

Ceiling Mounted Anesthesia Pendant System, Hygienically Smooth Surface, Impact and disinfectant resistant.
2 swivel arms 750-880mm each
Maximum Loading capacity 130-150KG
Max degree of rotation is 280 - 300°
8 x Electric Socket British Standard
2 x O2 gas Outlets
2 x Medical Air (4 bar) Outlet
1 x AGSS Outlet Active
1 x Vacuum Outlet
1 x N2O gas Outlet
1 x IV Pole with 4 Hooks
2 x Shelves
1 x Drawer
1 x Basket for accessories
8 x Earthling pins
Should have 3 years comprehensive warranty.
Demo/physical inspection may be requested by technical team.
Must have installed and successfully maintain 15+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
Must have all tool, instruments, HTM Certified Professional and calibration equipment in Karachi.
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)

Item No. 43	Ceiling Mounted Surgeon Pendant	Quantity: 3 Nos.

Ceiling Mounted Surgeons Pendant System, Hygienically Smooth Surface, Impact and disinfectant resistant.
2 swivel arms 750-880mm each
Maximum Loading capacity 130-150KG
Max degree of rotation is 280 - 300°
4 x Shelves
2 x Drawers
08 x Electric Socket British Standard
2 x Medical Air (4 bar) Outlet
2 x Medical Air (7 bar) Outlet
2 x O2 gas outlet
1 x IV Pole with Swivel Arm and 4 Hooks
1 x Basket for accessories
Should have 3 years comprehensive warranty.
Demo/physical inspection may be requested by technical team.
Must have installed and successfully maintain 15+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
Must have all tool, instruments, HTM Certified Professional and calibration equipment in Karachi.
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)

Item No. 44	Digital Radiography with FPD	Quantity: 1 No.

20 kW Generator or more
High frequency X-Ray Generator.
Floor mounted tube column stand
Auto + Manual collimator with LED light
140 KHU X-ray tube
Wall chest bucky stand
Pair of HT cables 10m or more.
Flat Panel Detector for Table Bucky
Flat Panel Detector for Chest Bucky

X-RAY GENERATOR
Solid state high frequency (20 kHz or more).
Three phase, 20 kW Generator or more
Automatic line compensation.
Overload tube protection.
kVP 50~125kV or more
mA 10~200mA or more
Exposure time: 1 ms ~ 6s or more.

X-RAY TABLE
Grid ration 40 l/sec, 12:1 or better at a focal distance of 115 cm
It should have a weight bearing capacity of 180 kg or more with AEC chamber and ion chamber
Patient hand grips

FLOOR MOUNTED TUBE COLUMN STAND
Rotation of tube – collimator assembly +/-180° or more
Longitudinal travel 1450mm or more
Vertical travel: 400-1900mm or more
Later/transfer travel 300mm or better

X-RAY TUBE
Dual focus x-ray tube
Small focus 0.6mm or better
Large focus 1.2mm or better
Rotating anode
Maximum tube voltage 125 kVP or more
Anode heat storage capacity 140 KHU or more

WALL CHEST BUCKY STAND
Chest bucky stand with cassettes formats maximum up to 35x43cm or better
Vertical travel 1500mm or better.
Moving grid: 12:1 ratio or better

FLAT PANEL DETECTOR
Flat Panel Detector, 35 x 43 or better
Cesiumiodide (csi) with amorphous silicon
Pixelpitch:150µm or better
Pixelmatrix: 3K x 3K or better
Detective Quantum Efficiency(DQE):more than 70%
A/D Conversion: 16bits or more
Complete with workstation and viewing software
Intel i5-4590 or equivalent, Memory: 8GB or more, Hard Drive: 1TB or more
Complete with LED monitor 21"or more, mouse, keyboard, DVD writer
DICOM compliance: DICOM 3.0
DICOM worklist from HIS/RIS
DICOM sent, DICOM image print
Images pre-viewing should be available within 5 secs after exposure and the cycle time should be less than 12 seconds.
The detectors should have Automatic Exposure Detection as standard feature.
Input patient data: Selection of exam, study, procedure, patient ID
Setting of x-ray exposures
Image processing software
Software for digital radiographic image in DICOM format
Improve image contract
Adjust dynamic range
Reduce the noise
Bone Suppression Imaging
Soft tissue processing

WARRANTY: 5-year standard comprehensive warranty with parts and services including tube and detector with unlimited exposures must be quoted.
Annual maintenance contract from year 6^{th} to 12^{th} must be quoted.

THIRD PARTY ACCESSORIES AND LOCAL WORK:
DICOM Printer compatible with DRY imaging Films manufactured by Fuji Film.
Laser Exposure Imaging technology
2-online trays, option of additional off-line trays
Productivity: 80 films/hr of 14x17 and 110 sheets/hr of 10x14
Resolution: 254/508dpi for 100/50 micron pixel-by-pixel image printing
14-bit grayscale
Should have built-in densitometer for Automatic Film Density adjustment
Compatible online UPS for operator console and Printer with minimum 15 min backup.
Compatible DB will be required and to be arranged by the bidder.
Lead Apron + Thyroid + Gonadal 0.5mm Pb equivalent- 3 Nos. Stand for lead aprons
All software backup, service passwords, service manuals must be provided.
Room Renovation including
- Tile Flooring and false ceiling with lighting.
- Lead Shielding as per PNRA recommendation covered by laminated sheets on walls

Lead Door
Operator's shield with lead glass for Xray technician
2 Ton Split Type / Floor Standing Air Condition (1 No.) or greater as per requirement of the equipment and room

COUNTRY OF ORIGIN: USA / EUROPEAN UNION / JAPAN / Goods having the origin of other countries are also acceptable subject to the availability of any two following certifications in respect of quoted model / series.
510(k) US-FDA (Food & Drug Administration).
Japan Industrial Standard (JIS-MHLW) / Japan Quality Assurance Organization (JQAO) Certificate.
CE mark (MDD) for technical qualification of equipment

Item No. 45	Lightning System for Operation Theater with Hermetic Sealed Ceiling	Quantity: 3 Nos.

Housing for clean room illuminators is made of sheet steel painted and with antistatic coating.
Clean Room LED External Dimension: 600 x 1200 mm or 600 x 600 mm Approx., 90 -100 W and luminescence as per ISO standard
color temperature 3000K or 4000K
LED Life < 50000 hours
1 Year Warranty

Item No. 46	Flooring for Operation Rooms	Quantity: 3 Nos.

Anti-Static Flooring.
Role size of 2.0mm thickness.
Self-Leveling Material Should is lay down before placement of the Sheet.
PVC Flooring of tiles or sheaths with 2.0 mm thickness.
Electrically resistive.

Item No. 47	Automatic Sliding Door for Operating Rooms	Quantity: 3 Nos.

Single wing of thickness 0.8mm or more Stainless Steel AISI304 or AISI301 brushed finish or powder coated.
Door acoustically and thermally isolated with highly pressured polyurethane foam
Stainless Steel long handles from internal and external side of the door wing.
Inspection Window–300 x 1500mm or 400 x 600 mm double glazed (safety glass) with privacy blind
Safety sensor
Touchless sensor.
Adjustment of opening and closing speed

Item No. 48	Laminar Air Flow (2.6 x 2.4 Meter)	Quantity: 3 Nos.

Provide an optimal vertical, laminar clean air-flow in the operating theatres.
Filter (Class H14 grade) HEPA filters to guarantee a maximum operating safety, low germ concentrations at the operating and instruments table areas according to ISO-Class 5 clean room classification.
1- size: OR 550sq ft Approx.
2- Required Airflow Volume: 5000 m3/h or better.
3- Air Velocity: 0.24 m/s.
To obtain a vertical laminar pure stream (<than 5% turbulences
A filter frame on the clean side made of extruded anodized aluminum profiles to support the HEPA-filters, horizontally placed.

OT-light passage through the air distributor with a minimized blind area, meeting highest hygienically standards.
The filters to be assembled with the double seal system for continuous testable permeability of both the frame structure and the filter seals to keep the cavity between filters and frame under negative pressure through connection to an air extraction duct.
The structure on the side of the unfiltered air builds an airtight aluminum pressure chamber with connection points for the recycled air and the primary air. The airtight box should be accessible from the clean-air side to allow easy adjustments.

Item No. 49	Hygienic Air Handling Unit for Operating Room	Quantity: 3 Nos.

Direct Expansion
The Unit fully complies with Stainless Steel Interior.
Chassis with no thermal bridge.
Double-skin panels with fitted gasket, outer surface in lacquered steel. inner surface in stainless steel with compressed seal
Constant air-flow control, compensating filter fouling.
Available static pressure ranging from 50 to 1200Pa to compensate pressure drop caused by ducting network and clogging filters.
75% Recycled Air and 25% Fresh Air, adjustment of fresh air and exhausted air outputs to obtain required level of pressure in the room treated.
Range of output: 4250-8500 m3/h
Temperature range Adjustable: 16 - 23°C Adjustable
Constant output control: Speed variation and pressure probe integrated in fan itself.
Direct expansion: cooling gas/cooling circuit+ pressure reducer +dehydrator + liquid gauge/ air-cooled Condenser/ capacity adjustment
Filtration: (Three-stage filtration)
1. Preliminary filter (before coil) on fresh air: G4/F9
2. Preliminary filter (before coil) on recycled air: F6/F9
3. Finishing filter (after coil) on output H14
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.
Demo/physical inspection may be requested by technical team
Must have installed and successfully maintain 30+ units in OR across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
Authorized as sole distributor with certified trained engineers to be available in Sindh.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied the end-user/Engineer.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer.
Must have all tool, instruments and calibration equipment in Sindh
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)

Item No. 50	Washing / Disinfection / Drying Unit	Quantity: 1 No.

Controller based fully automated program sequence.
Loading capacity: 8 x 1/1 DIN baskets
Motorized vertical sliding glass doors pass through type.
Washing chamber and all pipes with media in contact with the products in 316L. Frame made of stainless steel AISI 304
Chamber made of 316L mirror polished
Water management system
Colored screen display 5'' inch or better on loading side.
Analog pump pressure monitoring

Digital level monitoring inside the chamber via flowmeter
Time controlled Stand-By operation (energy saving)
Inbuilt printer for unloading side
25 program or better spaces for cleaning programs, freely programmable
LED lightening with alternating colors depending on operating status visible from 5 meter distance
Thermal printer on unloading side.
Flashing chamber lighting at end of program
Safety interlock system for rack to prevent the rack falling out of the chamber. The rack can nor be unloaded without the transport trolley positioned in front of the machine.
The washing pump must be made of Stainless steel.
The unit should be complete with baskets, trays, and stands for washing / disinfection of the items mentioned above. Operation 380-400V.
All consumables must be open system.
2 x dosing Pumps with flow meters & level control sensor.
Hepa Filter
Exhaust air draught diverter.
Accessories
OP Cart for 10/12 trays of instruments with removable shelves.
10 x 1/1 DIN Instrument trays for OP Cart
Transfer trolleys for cart
The unit should comply with EN ISO 15883-1-2-5-6 and EU directives.
Country of Origin: USA/EU/Japan
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head, must quote comprehensive annual maintenance contract from 4^{th} to 10^{th} year.
Must have installed and successfully maintain 15+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided),
At least 2 certified trained engineers to be available in Karachi.
The contractor will also provide a hard copy and digital copy of all Installation Report, PPM reports and checklist, service reports, uptime reports, QA and QC report, equipment log, installation manual, technical documentation of spare part and FMI installed on the system, installation manual, operational manuals, technical manuals, service/maintenance manuals, software to the end-user/Engineer.
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a foreign trained specialist along with training material as per manufactures guideline.
Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)
USA/EU/Japan (other countries may be accepted if 50+ functional units are installed in Pakistan), demo/physical inspection may be requested by technical team.

GROUP – B

Item No. 51	Phantom Head	Quantity: 7 Nos.

Manikin attachment to a dental unit
High grade simulator with various occlusal and jaw TYPE II movement functions.
-For advanced pre-clinical students should be
-Face-bow training is possible
-Easy-to-use magnet change system
-Phantom Head Simulation System
Upper and lower jaw model, 32 teeth type, Soft rubber gingivae, screw in teeth, complete, Rubber adult mask for manikin with drain Collection system. Articulating head with desk clamp, System compatible with electric suction
Demo is mandatory
Must have installed in 5+ reputable institute across Pakistan
3 Years Warranty after commissioning

Item No. 52	Physio Dispenser	Quantity: 4 Nos.

Automatic thread cutter function Motor with cable, thermo washer disinfect able and sterilizable
Max Torque: 70 Ncm
Main's voltage: 220 – 240 V
Max output power: 70 W
Max torque of motor: 5-10 Ncm
Speed range: 300 – 40,000 min-1
Max coolant rate: approx. 100 ml/min
Foot control with program switching, activation and deactivation of the coolant pump, clockwise/anticlockwise rotation, On-Off function and infinitely variable speed control of the motor up to the preselected maximum speed along with Surgical Hand Piece Implantology Contra-angle with push-button 20:1, single spray, maximum drive speed 40,000 min-1
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution
Must include all accessories
Warranty 3 years after installation

Item No. 53	Dental Loupe with Light	Quantity: 10 Nos.

Field Illumination: 90 mm
Color Temperature: 5,500 - 5,700 K
Adjustable Light Brightness and Spot Size the LED light Combined with a 5W LED headlight.
The brightness of light can be adjusted according to your need.
The spot size can be adjusted from 10 to 19 mm at 420 mm working distance for a optimal field of view.
LED with 50000+lux homogeneous gives true color rendering.
Battery charger Processor controlled with country-specific power adaptor
Around 4 hours at 100% light intensity and 6.5 hours at 33% light intensity
Battery charge time 2–3 hours
Headband, which can be adjusted to wearer´s head
Swing-in orange filter to prevents premature curing of composite materials
charge level indicator and belt clip
Optics Featuring a Galilean design
Lens protection device Shields the objective lens against splashes and particles
Features high-quality, scratch-proof anti-reflective coating

Contact guard Sterilizable to reliably swing loupes up and down
Adjustable interpupillary distance
Side shields for Smart Side protection against splashes and particles
Soft case High-quality, shock-proof protection for your medical loupes and accessories
Orange filter (for dental application)
3 Years Warranty after commissioning

Item No. 54	Semi Adjustable Articulator	Quantity: 20 Nos.

The Mounting System interchanging mounted casts between articulators.
Interframe spacing of over 4 inches allowing easy mounting of even the bulkiest casts
Rounded edges and frame corners for enhanced visibility and posterior access
Bilateral elastics provide optimum feel during excursive movements and can be easily detached to remove the upper frame
Quick-acting centric lock allows easy return of the articulator to centric position and simple hinge movement
Upper frame which can easily be set at an open position for convenience during laboratory procedures
Condylar guidance featuring:
Immediate side shift
Fixed intercondylar distance of 110 mm
Adjustments: protrusive angle: 0-60°; immediate side shift: 0-4mm; progressive side shift: 5-15°
Removable upper member
Retaining springs hold members together without being locked in centric
Positive centric latch
110mm intercondylar distance
Rear wall posterior inclination of 25°
Straight top wall
Comes complete with: 10 disposable mounting plates, and carrying case
Lingual access is unobstructed. You'll appreciate its enhanced view when positioning tooth-to-tooth contacts on models and final prostheses.
Closed tracking fossa and fixed upper member are ideal for fabricating prosthetic appliances.
Articulator Features:
Progressive side shift: 0-30°
Protrusive angle: -20-+60°
Comes complete with: orbitals indicator, dual-end incisal pin, 10 disposable mounting plates, instruction manual and carrying case
Or equivalent
3 Year warranty
Origin: USA / EUROPEAN UNION / JAPAN / Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution

Item No. 55	Slow Speed Hand Piece	Quantity: 30 Nos.

Facility to rotate the bur Clockwise and anti-clockwise
External water spray Max. Speed: up to 20000 rpm
Borden 2(3)-hole connection
Quick Connect
Autoclavable
a) Straight Hand Piece, Twist tension chucking system, for hand-piece and contra-angle burs
b) Contra angle hand piece 1:1 Direct Drive
Or equivalent
3 Year warranty
Origin: USA / EUROPEAN UNION / JAPAN / Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted

model and 20+ installation in reputable institution

Item No. 56	High Speed Hand Piece	Quantity: 50 Nos.

Maximum RPM 400,000 +
Head Diameter 10.5cm
Swivel Connection
Chuck Type PUSH Button
Autoclavable
Or equivalent
Installation and all accessories must be included
3 years Warranty
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
Origin: USA / EUROPEAN UNION / JAPAN / Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 10+ installation in reputable institution

Item No. 57	Soldering Machine	Quantity: 2 Nos.

3 Heat Settings
9 Pulse Time Settings
12 Welding Tip Combinations
Remote weld/solder leads with tips
Brass posts for annealing and stress relieving
Welding Current: up to 200 Amps
Half-inch platform cut-out accommodates larger models
Foot Switch
Or equivalent
3 Year warranty
Origin: USA / EUROPEAN UNION / JAPAN / Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 10+ installation in reputable institution

Item No. 58	Ultrasonic Scalers	Quantity: 2 Nos.

Handpiece with 1.5 -2 m cable
Mains voltage: 220 –240 V
Max. power consumption: 70-100 VA
Coolant flow rate at 100 %: min. 50 ml/min
Foot control: yes
3 Year warranty
Origin: USA / EUROPEAN UNION / JAPAN / Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 10+ installation in reputable institution

Item No. 59	Ultrasonic Unit for Endodontic Retreatment	Quantity: 2 Nos.

Filter Replacement
HP Connector, O-Ring
Ultrasonic Tip Intro Kit
Tip Wrench

Handpiece included
Uses Line Water or Reservoir
10+ power levels
deep cavity endodontics

Ultrasonic Tips for Endodontic Surgical Retreatment (1 Set)
Angled 80 degrees at the working end
Slightly longer than other microsurgical instruments for better access
Diamond-coating reduces risk of Micro-fractures but allows for better adaptation of filling materials
Improved irrigation port

Ultrasonic Tips for Endodontic Non-Surgical Retreatment (2 Set)
Diamond coated
Water port
Fine/ Medium Grit
Or equivalent
Installation and all accessories must be included
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
3 Year warranty
Origin: USA / EUROPEAN UNION / JAPAN / Manufacturer from other countries is acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 10+ installation in reputable institution

Item No. 60	Dental Unit with Accessories	Quantity: 17 Nos.

Patient's Chair
Manually adjustable flat headrest.
armrest Swiveling for entry and exit of patient
Multiple profiles and positions
3 favorite buttons for individualized instrument settings
Programmable Starting and Rinsing positions
Extendable foot rest for ergonomic treatment of long patients
Fully hydraulically self-adjusting Chair with lifting capacity of 200 kgs.
Automatic Emergency stop of chair once it meets an obstacle. Manual Emergency stop also to be available
Synchronized movement of backrest and seat cushion by electromechanical motors prevents construction/over extension of the patient. The position of the patient's head on the headrest remains constant when the chair is lowered.
Easy adjustment of chair & backrest positions.
Standard Pneumatic Foot switch for controls of hand pieces.
All the outlet & inlet for the services to the chair should be Concealed in the box to be at the foot area of the chair, as an infection control Measure

Dentist's Element
Dentist Element with hanging hoses and adjustable arm with pneumatic brake system
control buttons for the individual chair functions, Programs, Light on/off and Intensity as well as for spittoon bowl and cup filler.
Hand piece holders without lockouts
Number of Hand piece positions including 3 way syringe: 05
Hand piece priority system (if one Hand piece in use others will not operate while lifting from holder)
3x Hanging hoses, fiber optic type
1 x 3-way syringe with autoclavable tip
1x High Speed air turbine push button type with 400,000 rpm

1x Slow Speed Air motor with internal water spray. Speed range from 2000-40,000 rpm. Forward and reverse modes. Complete with straight and contra angle attachments
1x Built-in Ultrasonic Fiber Optic Scalar frequency 28-36 kHz with sterilize-able hand piece and tips of same manufacturer. Water regulation on the scalar hand piece. Scaling and Endo mode
Removable silicone tray pad
Removable hand piece holder and tubing for cleaning and disinfection.

Assistant's Element
Number of hand piece positions including 3way syringe: 04
1 x 3-way syringe with autoclave able tip
1 x High Volume Evacuation hose, autoclave able suction hand pieces with adjustment suction pressure
1 x saliva ejector hose, autoclave able suction hand piece with adjustment suction pressure

Water Unit
Automatic Bowl Rinse function
Fixed on chair base
Automatic Glass Fill function with adjustment
Clean water system with the facility to change from clean (water bottle) to tap water with toggle switch
Standard Wet suction through micro switches (read to connect to central / wet suction)

Patient's Light LED
For optimum illumination of the treatment site
Flexible positioning via three flexible joints
Anti-glare for the patient through clearly confined luminous spot
Brightness is 8,000 – 26,000 Lux, 5,000- 6,900 Kelvin

Working Stools (Qty 2)
Anatomically contoured seat, mounted on 5-castors which can automatically braked when no load is applied to the stool. (local/imported)

Dry Air Suction (integrated/modular/combined for more than one unit)
Negative Pressure: 160 mBar
Noise Level without cover: 72 dBa
Number of Workplaces SF 100% usage: 30
Central Separation Unit: Made of Stainless Steel
Uniform use of Suction Motor to ensure high reliability and increase in the overall service life.
Cost effective use of power due to automatic switch of suction motors according to actual operational times and the required volume flow.
Intelligent fault monitoring.
vacuum control and bacterial filter.

Installation and all accessories must be included
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 50 units across Pakistan (list of installtion must be provided as per sample form) and authorized as sole distributor with certified trained engineers to be available in Karachi.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline

Item No. 61	Dental Laboratory Saw	Quantity: 2 Nos.

Diamond blade disc saw for model stump technique. Constant torque, D.C. motor, 6000 rpm., powered through transformer. Two-hands safety protection. Built-in suction with filter. Ball-joint model holder with magnetic locker. High quality diamond blade. Saw laser: same as Saw but equipped with high precision laser beam showing the exact cutting line. Installation and all accessories must be included
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
OEM: US/Japan/EU or fulfilling (CE/FDA/MHWL + ISO 13485, IEC 61010-1)
At least 10+ installation in Pakistan

Item No. 62	Digital Wax Carving Pencil	Quantity: 4 Nos.

Built-in digital circuit accurately maintains desired temperature with reset function.
Digitally displays temperature in either Celsius or Fahrenheit.
Previous working temperature is kept in memory
AC200-240V 100W
Silicon handle.
Translucent compartment in rear of unit for easy storage of carving tips.
Comes with 2 waxing tips (Offset Explorer & PKT 2)
3 Year warranty
Or equivalent
Installation and all accessories must be included
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
OEM: US/Japan/EU or fulfilling (CE/FDA/MHWL + ISO 13485, IEC 61010-1)
At least 10+ installation in Pakistan

Item No. 63	Duplicating Machine	Quantity: 1 No.

Double safety cover with interlock switch to stop the motor running when opening the lid.
Automatic gelatin melting and maintenance cycle
Possibility of a quick cooling cycle
Continuous temperature display with thermal cycle operating digital control to obtain a complete mixing and a uniform distribution of the heat in the gelatin.
230 V – 50/60 Hz Max-electrical input (W)660
Capacity (Kg)6
Or equivalent
3 Year warranty
CE certified
USA/EU/Japan (other countries may be accepted if it has more than 10+ functional installations in Pakistan)

Item No. 64	Electric Pulp Tester	Quantity: 4 Nos.

Designed for optimal ergonomics and easy handling.
Automatic one-button operation.
Continuous Stepless increase of power
Unit comes with 4 autoclavable probe tips.
Autoclavable medical-grade cords and connectors
Must resist micro-corrosion
Alkaline battery
Origin: USA / EUROPEAN UNION / UK / JAPAN / Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model

Item No. 65	Endodontic Irrigation Activation Device	Quantity: 2 Nos.

Sonic frequency
Strong, flexible medical grade polymer tips
Single patient use
Uncoated & Non Cutting tips
Origin: USA / EUROPEAN UNION / UK / JAPAN / Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model

Item No. 66	Fully Adjustable Articulator	Quantity: 10 Nos.

Fully adjustable fossae walls can be easily adjusted to duplicate patient's condylar path of movement as recorded by the Pantograph.
Features:
Protrusive angle: 0-60°
Immediate side shift: 0-4mm
Progressive side shift: 0-30°
Rear wall 30° backward
Top wall 30° up, 30° down
Intercondylar distance: 90-150mm
Comes complete with: adjustable incisal table, custom (step) incisal table, long centric incisal pin, 10 disposable mounting plates, wrench pack, carrying case and instruction manual
Or equivalent
Installation and all accessories must be included
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
OEM: US/Japan/EU or fulfilling (CE/FDA/MHWL + ISO 13485, IEC 61010-1)

Item No. 67	Obturation Unit	Quantity: 2 Nos.

Four temperature pre-sets ranging from 150°C to 230°C
Lithium-Ion battery lasts up to 1 week of endodontics cases to enhance performance and minimize downtime for charging
Ergonomic: cordless design for mobility
Safety: Auto shut-off after 10 minutes of downtime
Six slots and hexagonal grip allowing heat pluggers to be inserted in any direction
The system includes the following items:

Heating Unit
Charging Base
Lithium-Ion Battery
AC Power Adapter
Power Cord
#55/.06 Plugger
HEAT PLUGGERS “ENDODONTICS”
30/.04 taper Plugger
35/.04 taper Plugger
40/.04 taper Plugger
45/.04 taper Plugger
55/.06 taper Plugger
55/.08 taper Plugger
55/.10 taper Plugger
60/.12 taper Plugger
Hot Testing Tip
Installation and all accessories must be included
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 5+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided) and authorized as sole distributor with certified trained engineers to be available in Karachi.
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
Firm is also required to maintain a stock of spare parts in stock as recommended by the manufacturer. The list of which may be provided, and physical inspection may be done by the customer. Spare parts will be provided from local stock.
Must have all tool, instruments and calibration equipment in Karachi
End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution

Item No. 68	**Model Trimmer**	**Quantity: 2 Nos.**

Model trimmer, very silent and sturdy, equipped with solenoid valve to control the water inlet. Safety switch for protection against any accidental start of the motor. Adjustable working table.
Features:
• Disc Ø 26 cm.,
• Speed rate: 1400 r.p.m. ,
• Possibility to use alternatively:
standard-grained disc
Options:
• Orthodontic kit including:
scaled working table - goniometer – square model clamp.
Power supply - 220/240 V - 50 Hz – Max. Consumption 330 W
Should have 03 years comprehensive warranty including service, spare parts, on manufactures letter head.
Origin: USA / EUROPEAN UNION / UK / JAPAN / Korea, Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model and 20+ installation in reputable institution

Item No. 69	Central Compressors for Dental Units	Quantity: 4 Nos.

Oil free, dust free, 99.9% moisture free, rust free, odor free dental grade clean air at per HTM 2022, compatible system to accommodate pressure and flow requirement for (8 x 2) no. of dental units installed.
Preferable 2 motors, 8 cylinders
Special internal rust proof tank with anti-bacterial coating
Non return valve after every compressor motor for isolation. Safety valve.
Filter regulator assembly at delivery nozzle to give constant pressure.
compressor should be based on reciprocating technology, including integrated dry air system (membrane type preferable)
Control panel having facilities to switch on/off any compressor motor with over load and thermal protector and hour meter for each motor.
Working pressure: 6-8kg/cm2 (5.5-8.0 bar) with Pressure regulator, Noise Level; <82db,
Main supply 3/400 V, 50-60 Hz
Must include air inlet, Dust filter 1 µm, Oil/water separator/pre-filter, bacterial filter
Air receiver with pressure gauge, flow meter, fusible plug, pressure safety valve and drains, automatic drain, manual drain by-pass and pressure safety valve
crank case should not be oil filled and no internal/external greasing to be required at any time during maintenance
Or equivalent
Installation and all accessories must be included, PPM every 6 month as per manufacturer recommendation
Should have 03 years comprehensive warranty including service, spare parts.

Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.

OEM: US/Japan/EU or fulfilling (CE/FDA/MHWL + IEC 61010-1, HTM 2022)
At least 20+ installation in different institutions across Pakistan

Item No. 70	Apex Locator	Quantity: 1 No.

Powered by a rechargeable battery. Auto-power off feature, conserves battery life. Device operating time is approx. 10 hours at one charge.
Autoclavable file holder to avoid cross infection.
Multi-frequency operative system guaranties high accuracy (0.1 mm)
Auto Motor Start/Stop
Auto Torque Reverse
Auto Torque Slow Down
Auto Apical Reverse
Auto Apical Slow Down
No Zero-Adjustment
Automatic Calibration
Module, Probe Cord, File Holders (Qty 5),
Contrary Electrodes (lip clips) (Qty 8),
Function Tester, AA Alkali Batteries (Qty 6)
Warranty: 2 Year from the date of commissioning
OEM: US/Japan/EU/Korea
CE(MDD)/FDA/MHWL

Item No. 71	Paper Sealing Machine	Quantity: 1 No.

Microprocessor controlled automatic heat sealer for sterilization bags and pouches.
Complete stainless-steel body
Sealing speed 10 m / min
Sealing temperature 0 - 200 C
Sealing edge
Sealed seam width: 12 mm
Stainless steel body with printing mechanism.
Main connection: 220 V/50Hz
Should have 3 years comprehensive warranty including service, spare parts, on manufactures letter head.
Must have installed and successfully maintain 30+ units across Pakistan (list as per sample form must be provided),
The contractor will also provide a hard copy and digital copy of all Installation Report, PPM reports and checklist, service reports, uptime reports, QA and QC report, equipment log, installation manual, technical documentation of spare part and FMI installed on the system, installation manual, operational manuals, technical manuals, service/maintenance manuals, software to the end-user/Engineer.
Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin (Embassy Attested)
USA/EU/Japan (other countries may be accepted if 100+ installation), demo/physical inspection may be requested by technical team.

Item No. 72	CSSD FURNITURE AND OTHER EQUIPMENT	Quantity: 1 Set

Item No. 72.1	Cleaning and Washing Unit	Quantity: 1 No.

Dimensions of Unit should be approx. 2000 x 700 x 900 mm (W x D X H), Stainless Steel Table.
Complete with 03 Nos. Sinks each 500/500/250mm made of stainless steel with provision of countertop; equipped with drain valve and standpipe and with siphon trap, faucet with shower & mixer.
02 Nos. of integrated Spray Guns for dematerialized water / air with 08 cleaning nozzles, hose, and table lead through.
Should has capacity to hose 1 ultrasonic cleaner on Cleaning & washing unit.

Item No. 72.2	Paper Dispensing Trolley	Quantity: 1 No.

Without floor stand, movable 1300 x 700 x 1000 mm, made of stainless steel
Movable paper dispenser trolley made of stainless steel for storing of sterilization paper sheets at packing tables. 04 frames for paper sheet of 1200mm and 1 bottom shelve. Mobile with two lockable wheels

Item No. 72.3	Cutting Device	Quantity: 1 No.

For storage and preparation of paper/Plastic bags in rolls. The cutting knife is made of tempered stainless steel and is self-grinding.
Country of Origin: USA/Western Europe/Japan

Item No. 72.4	Tape Dispenser	Quantity: 1 No.

Tape dispenser for autoclave tape. Main parts of the dispenser are made of metal. Design for two rolls of tape.

Item No. 72.5	Free Standing Baskets Rack	Quantity: 10 Nos.

Free standing storage rack 4 single sections. Size approx. 1000 x 400 x 1800mm.

Item No. 72.6	Packing Table	Quantity: 4 Nos.

Tabletop of Stainless Steel with one-drawer and power sockets (692/376/198). Stand of stainless steel including two top mounted shelves and illuminated Magnifier*. Dimensions approx. 1600 x 700 x 850 mm.

Item No. 72.7	Linen Table	Quantity: 2 Nos.

Inspection and folding for linen, the tabletop will be made of Stainless-Steel top with inspection window. The frame is made of stainless steel. Dimension approx. (1600 x 850 x 900 mm). (Local)/imported

Item No. 72.8	Closed Transport Trolley	Quantity: 3 Nos.

Closed transport trolley made of stainless steel, lockable. Front wheels with directional locks and back wheels with brakes. Size (985 x 751 x 1471mm) / 6 STU

Item No. 73	Vortex	Quantity: 1 No.

Low profile and small footprint
Pressure sensitive cup
Continuous or touch operation
Rubber suction pads
Speed: 200 to 5500 rpm/ continuous or Pulse
Orbit: 2 mm
Tube Diameter (maximum): 20 mm
Operating Temperature: 4°C to 40°C
Power: 12 V dc
Or equivalent
Installation and all accessories must be included
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
3 years warranty
OEM: US/Japan/EU or fulfilling (CE/FDA/MHWL + ISO 13485, IEC 61010-1)

Item No. 74	Water Bath with Stirrer	Quantity: 2 Nos.

Built-in magnetic stirring mechanism for water agitation
water temperature uniformity and medium solution mixing
Stirring speed control
LCD screen shows temperature and timer simultaneously
User temperature calibration
Safety device
Multiple stirring mechanism capability
Number Of Stirring Mechanisms 2
Stirring Speed 300-1600rpm
Bath Capacity 10L
Water Circulation Function
Heating Power 500W - 800W
Temperature 5C above ambient to 99C
Temperature Increment 0.1C
Temperature Accuracy ±0.2C at 37C
Timer 99 (hr): 59 (min)
Bath Tank Material 304 stainless steel, with transparent lid
Or equivalent
Installation and all accessories must be included
3 years Warranty

Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
OEM: US/Japan/EU or fulfilling (CE/FDA/MHWL + ISO 13485, IEC 61010-1)

Item No. 75	Water Distillation Unit	Quantity: 1 No.

Output (l/h): 4
Conductivity (µS/cm) 1.0-2.0
Resistivity (MΩ-cm) 0.5-1.0
Temperature (°C) 25-35
Pyrogen Free
Water pressure 3-100psi
Electrical supply 220 - 240V, 50-60Hz
Maximum power (kW) 7
Borosilicate Glass
Or equivalent
Installation and all accessories must be included
3 years Warranty
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
OEM: US/Japan/EU or fulfilling (CE/FDA/MHWL + ISO 13485, IEC 61010-1)

Item No. 76	Wax Dispenser	Quantity: 1 No.

5 Liter capacity
Heated valve ensures a consistent flow of molten wax
Stainless steel outer casing, Aluminum inner reservoir
Inner reservoir screen
Rapid warm-up
safety over-temperature cut-off
Temperature Range 40° C to 75° C +/- 2° C
200-240 V, 50/60 Hz, 200-300 W
Or equivalent
Installation and all accessories must be included
3 years Warranty
Operational, preinstallation, installation, Maintenance, service, Spare parts manuals, PPM checklist, software and system backup in soft copy to be supplied
All consumables/spare required replacement within 10 years of normal operation must be quoted optionally.
OEM: US/Japan/EU or fulfilling (CE/FDA/MHWL + ISO 13485, IEC 61010-1)

Item No. 77	Adjustable Juster (Pipette)	Quantity: 1 No.

Micropipette should be adjustable with ultra- light weight and fully autoclavable.
It should be highly resistant to heat, acids and alkalis, mildew, bleaches, aging, sunlight and abrasion
Volume adjustment:
Ejector: Very low ejection force and positioned for perfect ergonomics. ·
Quick connection clip: Remove lower part easily. ·
Viable calibration seal to indicate factory calibration not changed
Easily calibratable

1) 2–20 µL adjustable micropipette with suitable 1000nos tips
Random error: ±0.03 µL
2) 20–200 µL adjustable micropipette with suitable 1000nos tips
Random error: ±0.4 µL
3) 0.1–1 mL adjustable micropipette with suitable 1000nos tips
Random error: ±2 µL
4) 1–10 mL adjustable micropipette with suitable 1000nos tips
Random error:±15 µL

Must comply with 510(k) FDA (Food & Drug Administration)/ European MDD 93/42/EEC (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model.
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested) USA/EU/Japan
3 years warranty

Item No. 78	Digital Weight Balance (0.0001 g)	Quantity: 1 No.

Capacity: 300 g
Readability: 0.0001 g
Pan diameter: 90 mm
Weighing in grams, milligrams, ounces.
Tare, external calibration, piece counting and percentage functions
Calibration weight included
With glass windbreak
Adapter AC 100-240V / 50-60Hz
Or equivalent
3 Year warranty
Origin: USA / EUROPEAN UNION / JAPAN / Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model

Item No. 79	Digital Weight Balance (0.1 g)	Quantity: 1 No.

Display Type: LCD
Capacity: 4000 - 5000 g
Readability: 0.1 g
Material: ABS Housing, Stainless Steel Pan
Stabilization Time 1 sec.
Electrical Requirements 200 - 240 V
Certifications/Compliance: CAN/CSA, WEEE, RoHS, UL
Or equivalent
1 Year warranty
Origin: USA / EUROPEAN UNION / JAPAN / Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model

Item No. 80	Blood Warmer	Quantity: 4 Nos.

Warm fluid/blood to a temperature range of 37- 40-degree c
Maintain or warm fluid/blood at a flow rate of 2.5 l/min
Digital temperature display of fluid
Inbuilt water tank/ dry in line heating system to warm the infused fluid/blood.
Warm water column or heated sleeve up to the patient end to maintain the temperature up to the point of

entry into the vein
Alarms for disconnections, less water and over temperature
Should be useful for both in adult and pediatric patients
Consumable should be open and not bound to specific manufacturer
Include 50 consumable set
Should have 3 years comprehensive warranty including service, spare parts, consumables on manufactures letter head.

Must have installed and successfully maintain 15+ units across Pakistan (satisfactory letter counter signed by institutional head and Biomedical Engineering Department must be provided) and have certified trained engineers to be available in Sindh

The contractor will also provide a hard copy and digital copy of all installation manual, technical documentation of part and FMI installed on the system, operational manuals, technical manuals, service manuals, software to the end-user/Engineer.

Must have fully equipped workshop in Karachi.

End-user application training and technical training of engineer to be provided locally by a trained specialist along with training material as per manufactures guideline.

Must comply with 510(k) FDA (Food & Drug Administration)/ European [MDD 93/42/EEC] (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model

Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)

USA/EU/Japan (Other country will be accepted if 50+ number of functional units are installed in Pakistan)

Item No. 81	**Heavy Duty Suction Machine**	**Quantity: 4 Nos.**

Piston or Diaphragm type with oil free pump mechanism.
Twin jars (Polysulfide or Polycarbonate type) of capacity up to 4/5L each, Autoclavable.
Aspiration rates up to 40-60 liters/minutes or more at 640-900mm.Hg
Vacuum continuously adjustable
Triple or Overflow safety device.
Change over valve
Suction tubing of silicone with coupling connection for each jar
Noise Level 50 dB or less.
220V/50Hz.
Should have 3 years comprehensive warranty.

Must comply with 510(k) FDA (Food & Drug Administration)/ European [MDD 93/42/EEC] (Medical Device Directive) / Japanese MHLW (Ministry of Health, Labor & Welfare) for specific quoted model
Original Equipment Manufacturer and Certificate of Origin Certificate (Embassy Attested)
USA/EU/Japan (Other country will be accepted if 50+ number of functional units are installed in Pakistan)

Item No. 82	**Patient Transfer Boards**	**Quantity: 2 Nos.**

Size: L1525mm x W635mm Approx.
Materia of the board should be disinfected with local available disinfection solution

Item No. 83	Laryngoscope (Small, Medium, Large)	Quantity: 4 Nos.

Blade Sizes (0,1,2,3,4,5)
Protective Case
Batteries included
LED light
Warranty 2 years
CE Certified

Item No. 84	X-Ray Viewer 3 – Films	Quantity: 10 Nos.

LED source without flicker providing a comfortable reading experience
color temperature: around 7200K
Light intensity adjustable
LED Life Span 100,000 Hours
3 years warranty

Item No. 85	Footstep	Quantity: 4 Nos.

Size: Approx. 50L X 30 W X 35 H cm
Aluminum sheet of 1mm thick
Standard warranty for 1 year should be provided from the date of supply

Item No. 86	Crash Cart	Quantity: 4 Nos.

There should be facility to carry ECG, Defibrillators on open areas at top shelves
Six removable bins and two polystyrene storage units with three drawers each
The unit shall be provided with 120-150 mm dia castors and corner buffers
Oxygen cylinder holder, electric lamp, IV pole, cardiac massage board and 3 laminated shelves
The trolley shall have a framework of single continuous length mild steel tubes and the thickness of M.S. tubes.
Standard warranty for 1 year should be provided from the date of supply

Item No. 87	Kick Bucket	Quantity: 4 Nos.

Wide heavy base on 5 swivel castors, all 5 are anti-static wheel Bucket sets and removes smoothly from holder frame, leaving the base in place
Holder frame is finished 360 degree around with rubber bumper High resistance to corrosion.
Frame and bucket: stainless steel.
Caster frame/bracket: steel or nylon.
Overall: 36-44 x 36-44 cm (diameter x h).
Bucket capacity: 12L Approx.
Two-year replacement warranty (Rust)

Item No. 88	Swab Hanger Trolley	Quantity: 4 Nos.

Stainless steel
Two-year replacement warranty (Rust)

Item No. 89	Double Bowl Stand	Quantity: 4 Nos.

Standard Size, Stainless steel, Best Quality
Two-year replacement warranty (Rust)

Item No. 90	Instrument Trolley	Quantity: 3 Nos.

Overall size: 686mm (L) x 457mm (W) x 813mm (H)
Stainless steel framework
Trolley should be mounted on 120-150 mm dia. non-rusting swiveling castor wheels
Two SS shelves with protective railing on three sides
304 grade SS should be used
Standard warranty for 1 year should be provided from the date of supply

Item No. 91	Oxygen Cylinder Trolley	Quantity: 3 Nos.

Frame of the cylinder trolley is made with Mild Steel (M.S.) tubular steel.
mounted on two 10cm wheels
Finish in epoxy powder coated
Height: 106 cm (approx.)
Standard warranty for 1 year should be provided from the date of supply

Item No. 92	Electrolytic Polisher Unit	Quantity: 1 No.

Simultaneous polishing of two Co-Cr, Stainless steel and other alloys partial denture bases
Supplementary cathode
quickly brings the unit up to operating temperature
automatic current stabilization Indicator to show when the solution in the polishing bath is due to be changed
Rated voltage 100–240 VAC, 50/60 Hz
Polishing current max. 10 A
Capacity of tub/bowl 2 Liter
Or equivalent
3 Year warranty
Origin: USA / EUROPEAN UNION / JAPAN / Manufacturer from other countries are acceptable if they have 510(k) US-FDA (Food & Drug Administration) / CE Marked / JIS (MHLW) for specific quoted model

Section VI.

Sample Forms

Sample Forms

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a. Bid Form and Price Schedules

NIT / IFB N^{o}: _____

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. (A) PRICE SCHEDULE IN PAK RUPEES
Delivered Duty Paid (DDP BASIS)

FOR GOODS OFFERED WITHIN 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	Quantity of Stores	Unit	Rate Per Unit	Total Price
1	**2**	**2**	**4**	**5**	**6**	**7**	**8**	**9**
Total Amount in Pak Rs. on DDP Basis								

Name _____

In the capacity of _____

Signed _____

Duly authorized to sign the Bid for and on behalf of _____

Date _____

2. (B) 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	Curr-ency	Rate Per Unit	Total Price
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
Total Amount in Foreign Currency										

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.

b. 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:

27 If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or

28 If the Bidder, having been notified of the acceptance of its Bid by the Procuring agency during the period of bid validity:

28.1 fails or refuses to execute the Contract Form, if required; or
28.2 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]

29 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:

30 In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

31 The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:

- the Bid Form and the Price Schedule submitted by the Bidder;
- the Schedule of Requirements;
- the Technical Specifications;
- the General Conditions of Contract;
- the Special Conditions of Contract; and
- the Procuring agency's Notification of Award.

32 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

33 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)

9 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]

10 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]

11 Manufacturer's Authorization Form

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

To:
The [Procuring Agency]
Karachi.

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 or withdrawn from the bidder and will inform timely of any transition.

Our representative may be reached in need of support,
Name:
Designation:
Email Address:

_____
[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.

12 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 time 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.

_____ _____

[Procuring Agency] **[Supplier /Contractor/Consultant]**

(FORM A)

HUMAN RESOURCE INCLUDING DETAIL OF TECHNICAL TEAM

S. #	Name	Designation	Contact Number	Posted Location	Date of Joining	Education	Trainings (Equipment, Country)

Note: Supporting Documents must be provided for each employee.

CEO/ Proprietor/ Managing Director
Name: _____
Email Address: _____
Cell Phone: _____

Director / General Manager Services
Name: _____
Email Address: _____
Cell Phone: _____

Director / General Manager Sales
Name: _____
Email Address: _____
Cell Phone: _____

Technical Focal Person for this Project
Name: _____
Email Address: _____
Cell Phone: _____
Address: _____

(FORM B)

SPECIALIZED TESTING AND CALIBRATION TOOLS

Supporting Documents must be provided for each specialized tool

S. #	Tool Description	Make	Model	Date of Purchase	Date of Last Calibration

(FORM C)
MAJOR SPARE PARTS

- Purchase documents must be provided,
- It may include Sensor, PCB, LCD display, Pumps, motors, detectors, Laser and other items recommended by manufacturer etc., list of recommended spare parts must also be provided.
- Parts such as cables, connectors will not be considered major spare parts.
- Bidder using an inventory management software may provide a software generated list instead of the below format.

S. #	Part Number	Part Description	Make	Model	Date of Purchase	Qty

(FORM D)

COMPLIANCE SHEET/ TECHNICAL EVALUATION SHEET

Name the Vendor:

Make/Manufacturer:

Model: Year of introduction:

Country of Origin:

Country of Manufacturing:

Country of Major parts sourcing:

Use full life as per manufacturer (in Years):

CE (MDD) link:

FDA(US) Link:

JIS/MHLW Link:

ISO 13485 Link:

Pre-installation requirement.

Electrical Connection:

Grounding:

Backup Supply:

Water (RO/DI with flow):

Drain:

Any other Requirement:

S. #	Tender Specification	Offered Specification	Page # of the supporting Document

Note: Supporting documents must be provided

(FORM - E)

FINANCIAL EVALUATION SHEET

Year	Annual Turnover for the last 3 years Year (PKR)
Year 2021	
Year 2020	
Year 2019	

Financial Information in PKR	Year 2021	Year 2020	Year 2019
Total Assets (TA)			
Total Liabilities (TL)			
Current Assets (CA)			
Current Liabilities (CL)			
Total / Gross Revenue (TR)			
Profits Before Taxes (PBT)			
Net Profit			
Current Ratio			

Supporting Document		Yes / No
Bank Statement	Year 2021	
	Year 2020	
	Year 2019	
Audited Accounts	Year 2021	
	Year 2020	
	Year 2019	
Bank Account Maintenance Certificate		

(FORM - F)

LIST OF INSTALLATION / REFERENCE CLIENT

Equipment:

Make/Manufacturer:

Model:

S. #	Department	Name of Institute	City	Date of Installation	Date of Satisfactory Certificate

Note: Attach the following supporting documents.

- Performance certificate (issued in last one year) on letter head of bidder/ Hospital
- Installation Report signed by Head of department and Biomedical Engineer
- Supply order / purchase order

(FORM - G)

PERFORMANCE CERTIFICATE

[on bidder's letter head]

This is to certify that the institute is satisfied by the performance of the firm and equipment as detailed below.

a) Purchase Order No: , dated
b) Make & Model no.:
c) Serial Number:
d) Quantity:
e) Name of the consignee:

The Firm has fulfilled his contractual obligation regarding the following services:

a) Satisfactory Installation, performance, and commissioning of equipment.
b) Furnishing detailed operation and maintenance manual for each equipment.
c) Training of the operators/users in operating the equipment to the satisfaction of the Institute.
d) Maintain uptime of ___ %
e) Perform Preventative maintenance at ___ Interval during warranty/contract period
f) Provide Spare parts timely

Biomedical Engineering Department.

Name
Designation
Date

Signature with Stamp

Head of the Institute / Medical Director / Medical Superintendent

Name
Designation
Date

Signature with Stamp

Representative of the firm

Name
Designation
Date

Signature with Stamp