



# **Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology, Haripur**

**KHYBER PAKHTUNKHWA**

## **Tender Document FOR**

**“Supply, Installation & Commissioning of Labs Equipment for Establishment of School of Medicine Dentistry and Allied Sciences at PAF-IAST Haripur”**

**Submission of Bids: Tuesday, 28-01-2025 @12:00 PM**

**Opening of Bids: Tuesday, 28-01-2025 @12:30 PM**

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## Section 1. Letter of Invitation

The Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology (PAF- IAST), Hairpur invites sealed bids from interested firms for the “Supply and Installation/ Deployment of Lab Equipment, for Establishment of School of Medicine Dentistry and Allied Sciences at PAF-IAST Haripur” under the following Lots.

| LOTS   | Description              |
|--------|--------------------------|
| LOT #1 | Physiology Basics        |
| LOT #2 | Physiology Equipment's   |
| LOT #3 | Anatomy                  |
| LOT #4 | Biochemistry             |
| LOT #5 | Forensics Basics         |
| LOT #6 | Forensics Models         |
| LOT #7 | Water Distillation Units |
| LOT #8 | Microscopy               |
| LOT #9 | Skill Development Lab    |
| LOT#10 | Pharmacy lab             |

The bidder must be registered and duly recognized in Pakistan and be registered with FBR and KPPRA; possess Manufacturer's status or Distributor/ Dealer status with authorization from Manufacturer/ Principal specific for this tender, with sufficient financial, technical and human resources to take up the task assigned and complete the same within prescribed time limit on the finalization of contract with PAF- IAST.

Tender document containing instructions to bidders covering definitions, introduction/background of the Project, scope of work, general terms and conditions, and special terms, procedure for submission of bids, opening of bid, evaluation criteria, and other related information, can be obtained against a written request on company's letterhead, from Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology, Haripur – Pakistan. Cost of the document is Rs. 2000/- Non-refundable (Stationery charges) for each LOT separately. Tender document can also be downloaded from <http://www.paf-iastr.edu.pk/> free of cost, however, the Bid should also be submitted along with Pay Order/ Demand Draft of Rs. 2000/- (Stationery Charges). No bid will be accepted without Tender Document fee.

Bidder(s) interested in participating in the tender process are advised to submit their Bid Proposal(s), along with the Earnest Money amounting 2% of their Bid Value in the shape of CDR, in accordance with the instructions in this tender document. Bid Proposal(s) must reach PAF-IAST, Haripur on Tuesday the January 28, 2025, by 1200 hrs. Any late Bid(s) shall not be accepted and returned unopened. Accepted Bids will be opened on the same day at 12:30 hrs, in presence of bidders who chose to attend. In case of sudden holiday on bid opening day, bids will be opened on next working day. The Tender shall be executed in accordance with KPPRA Rule 6 (2)b “Single Stage, two Envelope Procedure”.

This advertisement is also available on PAF: IAST and KPPRA websites <http://www.paf-iastr.edu.pk/> & <http://www.kppra.org.pk>.

## Section 2. Instruction to Bidders (ITB)

| <b>A. GENERAL TERMS</b>                      |   |
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| 1. Introduction                              | <p>1.1 Bidders shall adhere to all the requirements of this ITB, including any amendments made in writing by PAF-IAST. This ITB will be governed under Clause 36(a) "Single Stage, Two Envelope Procedure" of Public Procurement Rules, 2014, as amended from time to time and instructions of the Federal Government received during the completion of the project.</p> <p>1.2 Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by PAF-IAST. The Institute is under no obligation to award a contract to any Bidder as a result of this ITB.</p> <p>1.3 PAF-IAST reserves the right to cancel the procurement process at any stage without any liability of any kind for PAF-IAST, upon notice to the bidders or publication of cancellation notice on PAF- IAST website.</p>   |
| 2. Fraud & Corruption, Gifts and Hospitality | <p>2.1 PAF-IAST strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of PAF-IAST vendors and requires all bidders/ vendors observe the highest standard of ethics during the procurement process and contract implementation.</p> <p>2.2 Bidders/ vendors shall not offer gifts or hospitality of any kind to PAF-IAST staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or invitations to extravagant lunches or dinners.</p> <p>2.3 In pursuance of this policy, PAF-IAST:</p> <p style="margin-left: 20px;">(a) Shall reject a bid if it determines that the bidder is or has been engaged in any corrupt or fraudulent practices in competing for the tender in question.</p> <p style="margin-left: 20px;">(b) Shall declare a bidder ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the bidder is or has been engaged in any corrupt or fraudulent practices in competing for, or in executing any contract; or counseling or canvassing staff or elected representatives; or engaging in collusion with other bidders.</p> |
| 3. Eligibility                               | <p>3.1 A Bidder should not be suspended, debarred, or otherwise identified as ineligible by any Government/ Semi-government/ or any other international Organization. Bidders are therefore required to disclose to PAF-IAST whether they are subject to any sanction or temporary suspension imposed by these organizations.</p> <p>3.2 It is the Bidder's responsibility to ensure that its employees, sub-contractors, service providers, suppliers and/ or their employees meet the eligibility requirements as established by PAF-IAST.</p>  |

**4. General Terms**

- 4.1 The Bidder should be registered with Sales Tax and Income Tax Department as well as with the Khyber Pakhtunkhwa Revenue Authority.
- 4.2 The Bidder should have not been blacklisted by any Government/ semi-Government organization.
- 4.3 There should be no litigation against the bidder/ firm.

## B. PREPARATION OF BIDS

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| 5. General Considerations                                    | 5.1 In preparing the Bid, the Bidder is expected to examine the ITB in detail. Material deficiencies in providing the information requested in the ITB may result in rejection of the Bid.<br><br>5.2 The Bidder will not be permitted to take advantage of any errors or omissions in the ITB. Should such errors or omissions be discovered, the Bidder must notify the Project Director, PAF-IAST accordingly.   |
| 6. Cost of Preparation of Bid                                | 6.1 The Bidder shall bear all costs related to the preparation and/ or submission of the Bid, regardless of whether its Bid is selected or not. PAF-IAST shall not be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.   |
| 7. Language  | 7.1 The Bid, as well as any, and all related correspondence exchanged by the Bidder and PAF- IAST, shall be written in the language(s) specified in the BDS.  |
| 8. Documents Comprising the Bid                              | 8.1 The Bid shall comprise of the following documents and related forms of which details are provided in the BDS. All pages of the Bid shall be signed, stamped and properly paginated.<br>a) Returnable Forms as referred in Section 6 shall be properly filled in Ink or Typed. Forms filled in using a pencil shall not be considered and substantiate the annulment of the Bid Proposal.<br>b) Documents Establishing the Eligibility and Qualifications of the Bidder;<br>c) Bid covering Technical Specifications in detail, and covering Price Schedule;<br>d) Bid Security, if required by BDS;<br>e) Any attachments and/ or appendices to the Bid.  |
| 9. Documents Establishing the Eligibility and Qualifications | 9.1 The Bidder shall furnish documentary evidence of its status as an eligible and qualified supplier, using the Forms provided under Section 6 and providing documents required in those forms. In order to award a contract to a Bidder, its qualifications must be documented to PAF-IAST's satisfaction.  |
| 10. Technical Bid Format and Content                         | 10.1 The Bidder is required to submit a Bid using the Standard Forms and templates provided in Section 6 of the ITB.<br><br>10.2 Samples of items, when required as per Section 5, shall be provided within the time specified and unless otherwise specified by the Purchaser, at no expense to the Institute. If not destroyed by testing, samples will be returned at Bidder's request and expense, unless otherwise specified.<br><br>10.3 When applicable and required in Section 5, the Bidder shall describe the necessary training program available for the maintenance and operation of the equipment offered as well as the cost to the Institute. Unless otherwise specified, such training as well as training materials shall be provided in the language of the Bid as specified in the BDS.<br><br>10.4 When applicable and required in Section 5, the Bidder shall certify the availability of spare parts for a period of at least five (5) years from date of delivery, or as otherwise specified in this ITB. |
| 11. Price Schedule   | 11.1 The Price Schedule shall be prepared using the Forms provided in Section 6 of the ITB and taking into consideration the requirements in the ITB.<br><br>11.2 Any requirement described in this ITB but not priced in the Price Schedule, shall be assumed to have been included in the prices of other activities or items, as well as in the final total price.   |

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| <p>12. Bid Security</p>                             | <p>12.1 A Bid Security shall be provided in the amount and form indicated in the BDS. The Bid Security shall be valid for the duration as referred in BDS.</p> <p>12.2 The Bid Security shall be included along with the Bid. If Bid Security not found in the Bid, the Bid shall be rejected.</p> <p>12.3 If the Bid Security amount or its validity period is found to be less than what is required, PAF-IAST shall reject the Bid.</p> <p>12.4 In the event an electronic submission is allowed in the BDS, Bidders shall include a copy of the Bid Security in their bid and the original of the Bid Security must be sent via courier or hand delivery as per the instructions in BDS.</p> <p>12.5 The Bid Security will be forfeited by PAF-IAST, and the Bid rejected, in the event of any, or combination, of the following conditions:</p> <ul style="list-style-type: none"> <li>a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or;</li> <li>b) In the event the successful Bidder fails: <ul style="list-style-type: none"> <li>i. to sign the Contract after PAF-IAST has issued an award; or</li> <li>ii. to furnish the Performance Security, insurances, or other documents that PAF-IAST may require as a condition precedent to the effectivity of the contract that may be awarded to the Bidder.</li> </ul> </li> </ul>  |
| <p>13. Currencies</p>                               | <p>13.1 All prices shall be quoted in the currency indicated in the BDS. Where prices are quoted in different currencies, for the purposes of comparison:</p> <ul style="list-style-type: none"> <li>a) PAF-IAST will convert the currency quoted into the currency indicated in BDS, in accordance with the prevailing Inter Bank rate of exchange on the last day of submission of Bids; and</li> <li>b) In the event that PAF-IAST selects a Bid for award that is quoted in a currency different from the preferred currency in the BDS, PAF-IAST shall reserve the right to award the contract in the currency of PAF-IAST's preference, using the conversion method specified above.</li> </ul>  |
| <p>14. Joint Venture, Consortium or Association</p> | <p>14.1 If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the JV, Consortium or Association jointly and severally, which shall be evidenced by an intent letter or an Agreement among the legal entities duly notarized, and submitted with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between PAF-IAST and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture.</p> <p>14.2 After the Deadline for Submission of Bid, the lead entity identified to represent the JV, Consortium or Association Or any change in the constitution of the JV, Consortium or Association shall not be altered without the prior written consent of PAF-IAST/ Procurement Committee.</p> <p>14.3 The lead entity and the member entities of the JV, Consortium or Association shall abide by the provisions of Clause 15 herein in respect of submitting only one Bid.</p> <p>14.4 The description of the organization of the JV, Consortium or Association must clearly define the expected role of each of the entities in the joint venture in delivering the requirements of the ITB, both in the Bid and the JV, Consortium or Association Agreement or Intent Letter. All entities that comprise the JV, Consortium or Association shall be cumulatively subject to the eligibility and</p> |

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|  | <p>technical qualification assessment by PAF-IAST as defined in Section 4: Evaluation Criteria.</p> <p>14.5 A JV, Consortium or Association in presenting its track record and experience should clearly differentiate between:</p> <ul style="list-style-type: none"> <li>a) Those that were undertaken together by the JV, Consortium or Association; and</li> <li>b) Those that were undertaken by the individual entities of the JV, Consortium or Association.</li> </ul> <p>14.6 Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the JV, Consortium or Association or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials.</p>  |
| <p><b>15. Only One Bid</b></p>                     | <p>15.1 The Bidder (including the individual members of any Joint Venture) shall submit only one Bid, either in its own name or as part of a Joint Venture.</p> <p>15.2 Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:</p> <ul style="list-style-type: none"> <li>a) they have at least one controlling partner, director or shareholder in common; or</li> <li>b) any one of them receive or have received any direct or indirect subsidy from the other/s; or</li> <li>c) they have the same legal representative for purposes of this ITB; or</li> <li>d) they are subcontractors to each other's Bid, or a subcontractor to one Bid also submits another Bid under its name as lead Bidder; or some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this ITB process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.</li> </ul> |
| <p><b>16. Bid Validity Period</b></p>              | <p>16.1 Bids shall remain valid for the period specified in the BDS, commencing on the Deadline for Submission of Bids. A Bid valid for a shorter period may be rejected by PAF-IAST and rendered non-responsive.</p> <p>16.2 During the Bid validity period, the Bidder shall maintain its original Bid without any change, including the availability of the Key Personnel.</p>   |
| <p><b>17. Extension of Bid Validity Period</b></p> | <p>17.1 In exceptional circumstances, prior to the expiration of the Bid validity period, PAF-IAST may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing and shall be considered integral to the Bid.</p> <p>17.2 If the Bidder agrees to extend the validity of its Bid, it shall be done without any change to the original Bid.</p> <p>17.3 The Bidder has the right to refuse to extend the validity of its Bid, in which case, the Bid shall not be further evaluated.</p>  |



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| <p>18. Clarification on ITB (from the Bidders)</p> | <p>18.1 Bidders may request clarifications on any of the ITB documents no later than the date indicated in the BDS. Any request for clarification must be sent in writing in the manner indicated in the BDS. If inquiries are sent other than specified channel, even if they are sent to a PAF-IAST staff member, PAF-IAST shall have no obligation to respond or confirm that the query was officially received.</p> <p>18.2 PAF-IAST will provide the responses to clarifications through the method specified in the BDS.</p> <p>18.3 PAF-IAST shall endeavor to provide responses to clarifications in an expeditious manner, but any delay in such response shall not cause an obligation on the part of PAF-IAST to extend the submission date of the Bids, unless PAF-IAST deems that such an extension is justified and necessary.</p> |
| <p>19. Amendment in ITB</p>                        | <p>19.1 At any time prior to the deadline of Bid submission, PAF-IAST may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of an amendment to the ITB. Amendments will be made available to all prospective bidders.</p> <p>19.2 If the amendment is substantial, PAF-IAST may extend the Deadline for submission of Bid to give the Bidders reasonable time to incorporate the amendment into their Bids.</p>   |
| <p>20. Alternative Bids</p>                        | <p>20.1 Unless otherwise specified in the BDS, alternative Bids shall not be considered. If submission of alternative Bid is allowed by BDS, a Bidder may submit an alternative Bid, but only if it also submits a Bid conforming to the ITB requirements. Where the conditions for its acceptance are met, or justifications are clearly established, PAF-IAST reserves the right to award a contract based on an alternative Bid.</p> <p>20.2 If multiple/ alternative bids are being submitted, they must be clearly marked as "Main Bid" and "Alternative Bid"</p>   |
| <p>21. Pre-Bid Conference</p>                      | <p>21.1 When appropriate, a pre-bid conference may be conducted at the date, time and location specified in the BDS. All Bidders are encouraged to attend. Nonattendance, however, shall not result in disqualification of an interested Bidder. Minutes of the Bidder's conference will be disseminated on the procurement website and/ or shared by email as specified in the BDS. No verbal statement made during the conference shall modify the terms and conditions of the ITB, unless specifically incorporated in the Minutes of the Bidder's Conference or issued/ posted as an amendment to ITB.</p>   |

### C. SUBMISSION AND OPENING OF BIDS

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| <p>22. Bid Proposal Submission</p> | <p>22.1 The Bidder shall submit a duly signed and numbered all pages of the complete Bid in an Envelope sealed and marked as per ITB 22.6, and in accordance with <b>KPPRA Rule 6 (2)(b)</b>.</p> <p>22.2 The Outer Envelope should contain Two (02) separate sealed envelopes, one of which comprising the <b>Forms (A – F) and supporting documents</b> in accordance with requirements in the BDS, shall be marked as "<b>Technical Proposal</b>". Whereas, the other envelope containing the <b>Form G: Price Schedule Form</b> shall be marked as "<b>Financial Proposal</b>".</p> <p>22.3 The Bid Security as referred in BDS must be placed in the "<b>Financial Proposal</b>" but in a duly sealed envelope and marked as "<b>Bid Security</b>". However, an Affidavit stating that the Bid Security (without indicating the amount) has been placed in the Financial Proposal, should be enclosed in "<b>Technical Proposal</b>". Bid security envelop will be opened with financial proposal of Technically qualified bidders.</p> |
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|   | <p>22.4 The Bidder shall submit a duly signed and numbered all pages of the complete Bid in an Envelope sealed and marked as per ITB 22.6, and in accordance with <b>KPPRA Rule 11(1)</b> .</p> <p>22.5 The Envelope should contain all the <b>Returnable Forms (A – G)</b> along with <b>Technical Specifications</b> meeting or exceeding the requirements as stipulated in this ITB, and <b>supporting documents</b> in accordance with requirements in the BDS.</p> <p>22.6 The Bid Security as referred in BDS must be placed in the Bid Envelope.</p> <p>22.7 Bid can be delivered by courier only as specified in the BDS.</p> <p>22.8 The Bid shall be signed by the Bidder or person(s) duly authorized to commit the Bidder. The authorization shall be communicated through a document evidencing such authorization issued by the legal representative of the bidding entity, or a Power of Attorney, accompanying the Bid. There should not be errors and/ or over-writings. Corrections (if any) should be made clearly and initialed with dates.</p> <p>22.9 Bidders must be aware that the mere act of submission of a Bid, in and of itself, implies that the Bidder fully accepts the General Contract Terms and Conditions.</p> <p>22.10 Hard copy submission by courier allowed or as specified in the BDS shall be governed as follows:</p> <p>a) The signed Bid shall be marked "Original", and its copies marked "Copy" as appropriate. The number of copies is indicated in the BDS. All copies shall be made from the signed original only. If there are discrepancies between the original and the copies, the original shall prevail.</p> <p>(b) The Bid Proposals must be sealed and submitted in an envelope, which shall:</p> <ol style="list-style-type: none"> <li>i. Bear the name of the Bidder;</li> <li>ii. Be addressed to PAF - IAST as specified in the BDS; and</li> <li>iii. Bear a warning not to open before the time and date for Bid opening as specified in the BDS.</li> </ol> <p>If the envelope with the Bid is not sealed and marked as required, PAF-IAST shall assume no responsibility for the misplacement, loss, or premature opening of the Bid.</p> |
| <p>23. Deadline for Submission of Bids and Late Bids</p>      | <p>23.1 Complete Bids must be received by PAF-IAST in the manner, and no later than the date and time, specified in the BDS. PAF-IAST shall only recognize the actual date and time that the bid was received by PAF-IAST.</p> <p>23.2 PAF-IAST shall not consider any Bid that is received after the deadline for the submission of Bids.</p>   |
| <p>24. Withdrawal, Substitution, and Modification of Bids</p> | <p>24.1 A Bidder may withdraw, substitute or modify its Bid after it has been submitted at any time prior to the deadline for submission.</p> <p>24.2 A bidder may withdraw, substitute or modify its Bid by sending a written notice to PAF- IAST, duly signed by an authorized representative, including a Power of Attorney. The corresponding substitution or modification of the Bid, must accompany the respective written notice. All notices must be submitted in the same manner as specified for submission of Bids, by clearly marking them as "WITHDRAWAL" "SUBSTITUTION," or "MODIFICATION"</p> <p>24.3 Bids requested to be withdrawn shall be returned unopened to the Bidders, except if the bid is withdrawn after the bid has been opened.</p>   |

## 25. Bid Opening

- 25.1 The Procurement Committee of PAF- IAST will open the Bid in the presence of Bidders' representative(s) who choose to attend.
- 25.2 The Bidders' names, modifications, withdrawals, the condition of the envelope labels/ seals, the number of folders/ files and all other such other details as PAF- IAST may consider appropriate, will be announced at the opening. No Bid shall be rejected at the opening stage, except for late submissions, in which case, the Bid shall be returned unopened to the Bidders.
- 25.3 In case of public holiday on bid opening day, bids will be opened on next working day.

## D. EVALUATION OF BIDS

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| 26. Confidentiality                                       | <p>26.1 Information relating to the examination, evaluation, and comparison of Bids, and the recommendation of contract award, shall not be disclosed to Bidders, even after publication of the contract award.</p> <p>26.2 Any effort by a Bidder to influence PAF-IAST in the examination, evaluation and comparison of the Bids or contract award decisions may, at PAF-IAST's decision, result in the rejection of its Bid and may subsequently be subject to consequences.</p>  |
| 27. Preliminary Examination                               | 27.1 PAF-IAST shall examine the Bids to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, and whether 'the Bids are generally in order, among other indicators that may be used at this stage. PAF-IAST reserves the right to reject any Bid at this stage.   |
| 28. Evaluation of Eligibility and Technical Qualification | <p>28.1 Eligibility and Technical Qualification of the Bidder will be evaluated against the Minimum Eligibility/ Qualification requirements specified in the Section 4: Evaluation Criteria.</p> <p>28.2 In general terms, Bidders that meet the following criteria may be considered qualified:</p> <ul style="list-style-type: none"> <li>a) They are not included in the list of blacklisted or barred companies published on KPPRA website, any federal or provincial government department;</li> <li>b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments,</li> <li>c) They have the necessary experience, technical expertise, production capacity, quality certifications, quality assurance procedures and other resources applicable to the supply of goods and/ or services required;</li> <li>d) They are able to comply fully with the General Terms and Conditions of Contract;</li> <li>e) They do not have a consistent history of court/ arbitral award decisions against the Bidder; and</li> <li>f) They have a record of timely and satisfactory performance with their clients.</li> </ul> |
| 29. Evaluation of Bid Proposals                           | 29.1 The evaluation team shall review and evaluate the Bids on the basis of their responsiveness to the schedule of requirements and Technical Specifications and other documentation provided, applying the procedure indicated in the BDS and other ITB documents. When necessary, and if stated in the BDS, PAF- IAST may invite technically responsive bidders for a presentation related to their Bids. The conditions for the presentation shall be provided in the bid document where required.   |
| 30. Due diligence   | <p>30.1 PAF- IAST reserves the right to undertake a due diligence exercise, aimed at determining to its satisfaction, the validity of the information provided by the Bidder. Such exercise shall be fully documented and may include, but need not be limited to, all or any combination of the following:</p> <ul style="list-style-type: none"> <li>a) Verification of accuracy, correctness and authenticity of information provided by the Bidder;</li> <li>b) Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team;</li> <li>c) Inquiry and reference checking with Government entities with jurisdiction on the Bidder, or with previous clients, or any other entity that may have done business with the Bidder;</li> </ul>  |

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|   | <ul style="list-style-type: none"> <li>d) Inquiry and reference checking with previous clients on the performance on on-going or completed contracts, including physical inspections of previous works, as deemed necessary;</li> <li>e) Physical inspection of the Bidder's offices, branches or other places where business transpires, with or without notice to the Bidder;</li> <li>f) Other means that PAF-IAST may deem appropriate, at any stage within the selection process, prior to declaring the Bidder as Qualified.</li> </ul>   |
| <b>31. Clarification of Bids</b>                            | <p>31.1 To assist in the examination, evaluation and comparison of Bids, PAF- IAST may, at its discretion, request any Bidder for a clarification of its Bid.</p> <p>31.2 PAF- IAST's 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, except to provide clarification, and confirm the correction of any arithmetic errors discovered by PAF-IAST in the evaluation of the Bids in accordance with the ITB.</p> <p>31.3 Any unsolicited clarification submitted by a Bidder in respect to its Bid, which is not a response to a request by PAF-IAST, may not be considered during the review and evaluation of the Bids.</p>   |
| <b>32. Responsiveness of Bid</b>                            | <p>32.1 PAF-IAST's determination of a Bid's responsiveness will be based on the contents of the bid itself. A substantially responsive Bid is one that conforms to all the terms, conditions, specifications and other requirements of the ITB without material deviation, reservation, or omission.</p> <p>32.2 If a bid is not substantially responsive, it may be rejected by PAF-IAST and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.</p>  |
| <b>33. Right to Accept, Reject, Any or All Bids</b>         | <p>33.1 PAF-IAST reserves the right to accept or reject any proposal in response to the ITB, to render any or all of the proposals as non-responsive, and to reject all Proposals in response to the ITB at any time prior to award of contract, while assigning the reason(s) thereof.</p> <p>33.2 PAF- IAST shall not be obliged to award the contract to the lowest priced offer.</p>  |
| <b>34. Nonconformities, Repairable Errors and Omissions</b> | <p>34.1 Provided that a Bid is substantially responsive, PAF-IAST may waive any nonconformities or omissions in the Bid that, in the opinion of PAF-IAST, do not constitute a material deviation.</p> <p>34.2 PAF-IAST may request the Bidder to submit the necessary information or documentation, within a reasonable period, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Such omission shall not be related to any aspect of the price. Failure of the Bidder to comply with the request may result in the rejection of its Bid.</p> <p>34.3 For the Price Schedule that are submitted, PAF-IAST shall check and correct arithmetical errors as follows:</p> <ul style="list-style-type: none"> <li>a) if there is a discrepancy between the unit price and the line-item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line-item total shall be corrected, unless in the opinion of PAF-IAST there is an obvious misplacement of the decimal point in the unit price; in which case, the line item total as quoted shall govern and the unit price shall be corrected;</li> <li>b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and</li> </ul> |

|   |   |
|---|---|
|   | <p>c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail.</p> <p>34.4 If the Bidder does not accept the correction of errors made by PAF- IAST, its Bid shall be rejected.</p>   |
| 35. Bidder Grievance                            | 35.1 PAF- IAST's grievance readdress procedure provides an opportunity for appeal to those bidders or firms not awarded a contract through a competitive procurement process. In the event that a Bidder believes that it was not treated fairly, the Bidder may lodge a complaint to the PAF-IAST's Grievance Readdress Committee.   |
| <b>E. AWARD OF CONTRACT</b>                     |   |
| 36. Evaluation                                  | <p>36.1 PAF-IAST will conduct the evaluation solely on the basis of response to this tender received from the firms.</p> <p>36.2 Evaluation shall be undertaken in the following steps:</p> <ol style="list-style-type: none"> <li>a) Preliminary Examination including Technical Specifications and other compliances</li> <li>b) Arithmetical check and ranking of bidders who passed preliminary examination by price.</li> <li>c) Evaluation of prices</li> </ol> <p>36.3 Price comparison shall be based on the landed price, including transportation, insurance and the total cost of ownership (including spare parts, consumption, installation, commissioning, training, special packaging, etc., where applicable)</p> |
| 37. Integrity Pact                              | 37.1 Bidders will also be required to submit a signed Integrity Pact on a stamp paper of appropriate value as part of their response. The text of Integrity Pact is available at Annex – I.   |
| 38. Award Criteria                              | <p>38.1 Prior to expiration of the period of Proposal validity, PAF-IAST shall award the contract to the Bidder that is found to be responsive to the requirements of the Technical Specifications and has offered the lowest price.</p> <p>38.2 PAF-IAST shall not be obliged to award the contract to the lowest priced offer, if the response is found deficient to the Technical Specifications and other compliances.</p> <p>38.3 In case of tie in Financial Bid Value, the Contract will be awarded to the bidder having closest match to the Technical Specifications.</p>  |
| 39. Contract Signing                            | <p>39.1 After the approval of any Work Award, a Contract Agreement on the stamp paper of appropriate value, shall be executed by PAF-IAST with Selected Bidder (i.e. Contractor) within 07 days from the date of issuance of Lol (Letter of Intent)/ Work Order.</p> <p>39.2 Failure to signing of Contract Agreement by the selected Bidder Firm with PAF-IAST within the stipulated time may constitute sufficient grounds for the annulment of the award, and forfeiture of the Bid Security, if any, and on which event, PAF- IAST may award the Contract to the Second highest rated or call for new Proposals.</p>  |
| 40. Right to Vary quantity at the Time of Award | 40.1 At the time of award of Contract, PAF-IAST reserves the right to vary the quantity of goods and/ or services, without any change in the unit price or other terms and conditions.  |
| 41. Sample draft Contract                       | 41.1 A sample draft Contract to be signed, containing applicable General Terms and Conditions can be found at Annex – II.   |

|   |  |
|---|--|
| 42. Performance Security                | 42.1 A performance security, if required in the BDS, shall be provided in the amount specified in BDS, well prior to the Contract signing by both parties. Where a performance security is required, the receipt of the performance security by PAF-IAST shall be a condition for rendering the contract effective.  |
| 43. Bank Guarantee for Advanced Payment | 43.1 No Payment will be released in advance.   |
| 44. Liquidated Damages                  | <p>44.1 PAF-IAST shall apply Liquidated Damages for the damages and/ or risks caused to PAF-IAST resulting from the Contractor's delays or breach of its obligations as per Contract.</p> <p>a) In case of delay, the Procurement Committee, PAF-IAST reserves the right to impose a penalty not exceeding 10% of the total amount of the Contract Value at the rate as referred in the Sample Contract at Annexure – II.</p> <p>b) If the Contractor fails to complete work as per PAF-IAST requirement, the Rector, PAF-IAST reserves the right to reject it altogether or impose a penalty not exceeding 50% of the total amount of the Contract.</p> <p>c) If the Contractor fails to provide supplies/ services as per PAF-IAST requirements, PAF-IAST may forfeit his earnest money as well as Performance Security, and the work will be done at the risk and cost of Contractor.</p> <p>d) In case of any dispute, matter will be referred to Rector, PAF-IAST whose decision will be binding on both the parties.</p> |
| 45. Force Majeure                       | 45.1 "Force Majeure" means an event which is beyond the reasonable control of a party and which makes a party's performance of its obligations under the Purchase Order/ Work Order/ Contract impossible or so impractical as to be considered impossible under the circumstances, and includes, but is not limited to, War, Riots, Storm, Flood or other industrial actions (except where such strikes, lockouts or other industrial issues are within the power of the party invoking Force Majeure), confiscation or any other action by Government agencies. In all disputes between the parties as to matters arising pursuant to this Purchase Order/ Work Order/ Contract, the dispute will be referred to Project Director, PAF-IAST whose decision will be final.   |
| 46. Delivery of Goods                   | 46.1 Contractor will be required to deliver the goods as per the Delivery Schedule referred in BDS without claiming any additional cost to the PAF-IAST at the designated site(s) and in quantities as referred in the Contract.   |
| 47. Payment Provisions                  | <p>47.1 Payment will be made only upon PAF- IAST's acceptance of the goods and/ or services performed. The terms of payment shall be within thirty (30) days, after receipt of invoice, and certification of acceptance of goods and/ or services issued by the proper authority in PAF: IAST. Payment will be affected by bank transfer in the currency of the contract.</p> <p>47.2 The Contractor shall provide all necessary supporting documents along with GST invoice, delivery challan and any other relevant documents as required by the PAF- IAST.</p>  |

## Section 3. Bid Data Sheet

The following data for the goods and/ or services to be procured shall complement, supplement, or amend the provisions in the Invitation to Bid. In the case of a conflict between the Instructions to Bidders, the Bid Data Sheet, and other annexes or references attached to the Bid Data Sheet, the provisions in the Bid Data Sheet shall prevail.

| BDS No. | Ref. to Section.2 | Data                      | Specific Instructions / Requirements   |
|---------|-------------------|---------------------------|--|
| 1.      |                   | Background of the Project | <p>Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology (PAF: IAST) is novel in its content and holistic in approach. The project concept is based on the slogan of “Skilling Pakistan” to create a high-quality technical education infrastructure. This unique educational institution in Pakistan will closely collaborate with several institutions in Austria and China and award multiple foreign degrees. This is a historic and visionary initiative as it is probably the first time that an institution will be established in Pakistan with many foreign universities giving degrees to students who study in it.</p>   |
| 2.      |                   | Objective                 | <p>The main objective of this Tender is to equip the PAF-IAST with necessary and advanced level of laboratory facilities, providing enabling environment to the students and faculty to perform their academic and research work in a conducive and productive environment and deliver beyond the expectations.</p>  |
| 3.      |                   | Scope of Work             | <p><b>Supply of Research Lab Equipment and furniture</b><br/>                     The required items in various Lots as referred in Section – 5 have been sought by PAF-IAST MDC from a reputed Firms/ Companies. The supplier is expected to supply high quality products meeting the specification as stipulated in this ITB, which conforms to the international quality standards. The time specified for delivery, Installation and Commissioning in the tender form shall be deemed to be the essence of the contract and the Successful Bidder shall arrange within the specified period.</p> <p><b>Post-Delivery Warranty and Support Services</b><br/>                     It is required that Manufacturer’s Warranty and Post-delivery Bidder’s Support Services for at least One (01) year from the date of commissioning at PAF-IAST be provided by the Supplier within the quoted cost of items.</p> <p>Moreover, additional Warranty and Support Services for next four (04) years should be quoted separately by the Bidder on annual payment basis. However, it will be at sole discretion of PAF-IAST to avail additional Warranty and Support Services in subsequent year(s) or otherwise.</p> <p>The labor cost for the installation of equipment must be embedded in the product price.</p> <p>Bidder must provide all the necessary accessories along with the hardware.</p> <p>Bidder must quote the Software/ license cost separately (If applicable)</p> <p>Bidder must be responsible for any other hidden license/ licenses</p> <p>Bidder must provide the training of Equipment to at least 2 PAF-IAST persons (FOC)</p> |



|     |            |  |  |
|-----|------------|--|--|
|     |            |  | The product will be supplied along with all accessories, software, and user manuals. The supplier will ensure commissioning, onsite training, and after-sale services.   |
| 4.  | 7          | Language of the Bid  | English  |
| 5.  | 22, 23, 27 | Submitting Bids for Parts or subparts of the Schedule of Requirements (partial bids) | The Procurement Committee shall consider the Bids Lot-wise (i.e., package against each of the Lots) as referred in Section – 5. Any item not quoted in the respective Lot shall have reasonable grounds to reject the Bid for that Lot.  |
| 6.  | 20         | Alternative Bids   | <b>Not Allowed.</b>  |
| 7.  | 21         | Pre-Bid conference   | Applicable (21-01-2025)  |
| 8.  | 16         | Bid Validity Period  | <b>180 days</b>  |
| 9.  | 13         | Bid Security/ Earnest Money (Refundable)   | <u>Required in the amount of 2% of the Bid Value of each Lot (separately) against which the Bidder is participating.</u> In case of options, earnest money shall be based on the maximum quoted price of the same items in the Lot.<br><br><u>Acceptable Forms of Bid Security:</u> Denominated in Pak Rupees duly issued by a Pakistani Bank or branch of a Foreign Bank, in the form of <b>CDR</b> in favor of the <b>Project Director, PAF-IAST</b> |
| 10. | 42         | Liquidated Damages   | Will be imposed as follows:<br><br><b>Percentage of contract price per day of delay: as referred in Draft Contract Sample in Annexure – II.</b>  |
| 11. | 40         | Performance Security   | Within one week of issuance of Lol/ Purchase Order and well prior to the signing of Contract, as <b>10% of the Contract value</b> for the duration of Warranty period referred in RFP.   |
| 12. | 12         | Currency of Bid  | Pakistani Rupees (PKR)   |
| 13. | 31         | Deadline for submitting requests for clarifications/ questions                       | <b>5 days</b> before the submission deadline   |
| 14. | 31         | Contact Details for submitting clarifications/ questions                             | Focal Person in PAF: IAST:<br><b>Dr Salik Javed Kakar</b><br><a href="mailto:salik.kakar@paf-iastr.edu.pk">salik.kakar@paf-iastr.edu.pk</a><br><a href="tel:0332-7889900">0332-7889900</a>   |

| 15.                         | 18, 19, and 21 | Manner of Disseminating Supplemental Information to the ITB and responses/ clarifications to queries | Direct communication to prospective Bidders by email and/ or Posting on the PAF: IAST website:<br><br><a href="mailto:attaullah.khan@spscai.paf-iaast.edu.pk">attaullah.khan@spscai.paf-iaast.edu.pk</a><br><a href="mailto:procurement@paf-iaast.edu.pk">procurement@paf-iaast.edu.pk</a><br><a href="http://www.paf-iaast.edu.pk/">http://www.paf-iaast.edu.pk/</a> |  |          |              |                   |                             |          |        |        |
|-----------------------------|----------------|--|---|--|----------|--------------|-------------------|-----------------------------|----------|--------|--------|
| 16.                         | 23             | Deadline for Submission  | Tuesday January 28, 2025, <b>on or before 11:00 AM (PST)</b>  |  |          |              |                   |                             |          |        |        |
| 17.                         | 22             | Number of Set(s) of Bid  | <b>Technical Proposal(s)</b><br>- One (01) Original<br>- Soft copy of Technical Proposal in a USB Flash Drive<br><b>Financial Proposal(s)</b><br>- One (01) Original<br><br><b>Note: Bidders are required to prepare and submit the Proposal(s) against the Lot(s) separately in separate envelopes, in which they intend to participate.</b>                         |  |          |              |                   |                             |          |        |        |
| 18.                         | 22             | Allowable Manner of Submitting Bids  | <input checked="" type="checkbox"/> Courier/by Hand   |  |          |              |                   |                             |          |        |        |
| 19.                         | 22             | Bid Submission Address   | <input checked="" type="checkbox"/> <b>By Courier/ by Hand</b><br>Convener Procurement Committee,<br>PAF- IAST, Mang, Haripur   |  |          |              |                   |                             |          |        |        |
| 20.                         | 22             | Electronic submission (email) requirements   | Not Allowed   |  |          |              |                   |                             |          |        |        |
| 21.                         | 25             | Date, time and venue for the opening of bid  | Date and Time: Tuesday January 28, 2025 <b>at 12:30 AM</b><br>Venue: <b>Conference Room, PAF-IAST, Mang, Haripur</b>  |  |          |              |                   |                             |          |        |        |
| 22.                         | 27, 36         | Evaluation Method  | Eligible and qualified bids meeting the PAF- IAST requirements and technically responsive as stipulated in this ITB   |  |          |              |                   |                             |          |        |        |
| 23.                         |                | Evaluation Method for the Award of Contract  | Lowest priced technically responsive.   |  |          |              |                   |                             |          |        |        |
| 24.                         |                | Expected date for commencement of Contract   |   |  |          |              |                   |                             |          |        |        |
| 25.                         |                | Maximum expected duration of Contract  | <b>24 months</b>  |  |          |              |                   |                             |          |        |        |
| 26.                         | 35             | PAF: IAST will award the contract to:  | <b>One Bidder Only against each Lot</b>   |  |          |              |                   |                             |          |        |        |
| 27.                         | 39             | Type and Contract Terms and Conditions that will apply   | PAF-IAST General Terms and Conditions for Contracts for Goods and/ or Services as per Sample at Annex – II.   |  |          |              |                   |                             |          |        |        |
| 28.                         | 46             | Delivery, Installation and Testing/ Training   | <table border="1"> <thead> <tr> <th></th> <th>Delivery</th> <th>Installation</th> <th>Testing/ Training</th> </tr> </thead> <tbody> <tr> <td>LOT #1, 2,3,4,5,6,7,8,9,10,</td> <td>10 weeks</td> <td>1 week</td> <td>1 week</td> </tr> </tbody> </table>   |  | Delivery | Installation | Testing/ Training | LOT #1, 2,3,4,5,6,7,8,9,10, | 10 weeks | 1 week | 1 week |
|                             | Delivery       | Installation   | Testing/ Training   |  |          |              |                   |                             |          |        |        |
| LOT #1, 2,3,4,5,6,7,8,9,10, | 10 weeks       | 1 week   | 1 week  |  |          |              |                   |                             |          |        |        |

## Section 4. Evaluation Criteria

### Preliminary Examination Criteria

Bids will be examined to determine whether they are complete and submitted in accordance with ITB requirements as per below criteria on a Yes/ No basis:

- Appropriate signatures
- Power of Attorney
- Minimum Bid documents provided.
- Bid Validity
- Bid Security submitted as per ITB requirements with compliant validity period.

### Minimum Eligibility Criteria

Eligibility will be evaluated on a Pass/ Fail basis. If the Bid is submitted as a Joint Venture, there should be no more than two (02) companies in the Joint Venture and each company should meet the minimum criteria, unless otherwise specified.

| ELIGIBILITY |                                  |  |   |
|-------------|----------------------------------|--|---|
| S. #        | Subject                          | Criteria   | Reference Returnable Form(s)                                    |
| 1.          | <b>Bidder's Status</b>           | Participating as<br><input type="checkbox"/> Individual Company<br><input type="checkbox"/> JV/ Consortium   | Form B: Joint Venture/ Consortium/ Association Information Form |
| 2.          | <b>Legal Status</b>              | Bidder is a legally registered entity in Pakistan. Bidder is/ are also registered with FBR for Income Tax and Sales Tax  | Form C: Bidder Information Form                                 |
| 3.          | <b>Location of Offices</b>       | Bidder (Lead Bidder) has declared office(s) in Islamabad/ Rawalpindi/ Peshawar/ Abbottabad   | Form C: Bidder Information Form                                 |
| 4.          | <b>Principal's Authorization</b> | Bidder or at least one member of JV/ Consortium/ Association must be Authorized Partner/ Reseller/ Dealer for the supply and services of quoted goods/ services.   | Form C: Bidder Information Form                                 |
| 5.          | <b>Company in Operation</b>      | Bidder (Lead Bidder) is in operation for at least Five (05) years.   | Form C: Bidder Information Form                                 |
| 6.          | <b>Financial Strength</b>        | Average annual turnover over last 3 years<br>LOT # 1, 2 → Rs. 20 million<br><i>(For JV/ Consortium/ Association, all Parties cumulatively should meet requirement).</i>  | Form D: Qualification Form                                      |
| 7.          | <b>Relevant Experience</b>       | Minimum No. of Projects of similar nature, value, and complexity in last 3 years<br>LOT # 1, 2, 3,4,5,6,7,8,9,10,11,12,13→ Two (03) projects<br><i>(For JV/Consortium/ Association, all Parties cumulatively should meet requirement).</i> | Form D: Qualification Form<br>Form E: Technical Proposal Form   |
| 8.          | <b>Eligibility</b>               | Bidder(s) is not suspended, nor debarred, nor otherwise identified as ineligible by any Government/ Semi-government/ Autonomous organization in Pakistan, in accordance with ITB clause 3. Non-Blacklisting certificate will be required.  | Form A: Bid Submission Form                                     |
| 9.          | <b>Bankruptcy</b>                | Bidder(s) has not declared bankruptcy, is not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against the vendor that could impair its operations in the foreseeable future.          | Form A: Bid Submission Form                                     |

| QUALIFICATION                                 |   |  |            |  |                                 |
|---|---|--|------------|--|---------------------------------|
| S. #  | Attribute                               | Description  | Max. Score | Criteria   | Returnable Form(s)              |
| <b>Section – I: General Corporate Profile</b> |   |  | <b>25</b>  |  |                                 |
| 10.   | <b>Bidder’s Footprints</b>              | Number of offices/ services centers across the country                               | 5          | 4+ offices fully operational for last five (4) year  | Form C: Bidder Information Form |
|   |   |  | 3          | 3 – 4 offices fully operational for last five (4) year   |                                 |
|   |   |  | 1          | < 3 offices fully operational for last five (4) year   |                                 |
| 11.   | <b>Bidder’s Human Resource Strength</b> | Number of full-time employees (documentary proof required)                           | 8          | 50+ employees with at least 20% Technical staff with at least 10% having technical certification | Form C: Bidder Information Form |
|   |   |  | 6          | 36 – 50 employees with at least 20% Technical staff at least 10% having technical certification  |                                 |
|   |   |  | 4          | 21 – 35 employees with at least 20% Technical staff at least 10% having technical certification  |                                 |
|   |   |  | 2          | 10 – 20 employees with at least 20% Technical staff at least 10% having technical certification  |                                 |
| 12.   | <b>Financial Standing</b>               | Annual Turnover averaged over last 3 years   | 7          | 2+ x Financial Strength  | Form D: Qualification Form      |
|   |   |  | 4          | 2 x Financial Strength   |                                 |
|   |   |  | 2          | 1.5 x Financial Strength   |                                 |
| 13.   | Annual Tax Paid                         | Annual Tax Paid averaged over last 3 years   | 5          | Rs. 5 million or more  | Form D: Qualification Form      |
|   |   |  | 3          | Rs. 2 – 5 million  |                                 |
|   |   |  | 2          | Rs. 1 – 2 million  |                                 |
| <b>Section – II: Business Profile</b>         |   |  | <b>30</b>  |  |                                 |
| 14.   | <b>Relevant Experience</b>              | Project(s) of similar nature, value and complexity completed. Min. No. of Projects=5 | 7          | Min. No. of Projects + 5   | Form D: Qualification Form      |
|   |   |  | 5          | Min. No. of Projects + 3   |                                 |
|   |   |  | 3          | Min. No. of Projects + 2   |                                 |
| 15.   | <b>Public Sector Experience</b>         | Project(s) delivered to government organizations                                     | 9          | 5 Projects worth 20 million each   | Form D: Qualification Form      |
|   |   |  | 7          | 3 Projects worth 20 million each   |                                 |
|   |   |  | 5          | 2 Projects worth 20 million each   |                                 |

|   |  |   |            |  |                               |
|---|--|---|------------|--|-------------------------------|
| 16.   | <b>Education Sector Experience</b>                         | Project(s) completed at education institutions.                                 | 9          | 2+ Projects  | Form D: Qualification Form    |
|   |  |   | 7          | 2 Projects   |                               |
|   |  |   | 5          | 1 Project  |                               |
| 17.   | <b>Experience in Haripur/ Abbottabad</b>                   | Project(s) completed in Pakistan  | 5          | Project worth 30 million in Pakistan   | Form D: Qualification Form    |
|   |  |   | 3          | Project worth 25 million in Pakistan   |                               |
| <b>Section – III: Manufacturer’s/ Product’s Strengths</b> |  |   | <b>10</b>  |  |                               |
| 18.   | <b>Manufacturer’s Global Presence</b>                      | Countries having supplied the same Quoted items                                 | 5          | No. of countries identified by Bid in consideration/ Max. No. of countries identified in all Bids * 10     | Form E: Project Proposal Form |
| 19.   | <b>Manufacturer’s Products Portfolio</b>                   | Various Products produced by the manufacturer beyond quoted items               | 5          | No. of relevant Products mentioned by Bid in consideration/ Max. No. of Products referred in all Bids * 10 | Form E: Project Proposal Form |
| <b>Section – IV: Registration &amp; Certifications</b>    |  |   | <b>10</b>  |  |                               |
| 20.   | <b>ISO 27001 Certified</b>                                 | Bidder or the Lead Bidder in case of JV should be Certified                     | 5          | Copy of Valid Certificate  | Form E: Project Proposal Form |
| 21.   | <b>Certification specific to quoted Products/ Solution</b> | Bidder or any of the JV Partners should possess them                            | 5          | Copy of Valid Certificate  | Form E: Project Proposal Form |
| <b>Section – V: Presentation on Project Proposal</b>      |  |   | <b>25</b>  |  |                               |
| 22.   | Project Management Approach                                | Overall approach towards planning and implementing the project.                 | 5          | To be assigned by the Technical Committee  | Form E: Project Proposal Form |
| 23.   | Post-Commissioning Services                                | Overall approach towards after-sale support and services.                       | 5          | To be assigned by the Technical Committee  | Form E: Project Proposal Form |
| 24.   | Distinguishing Features                                    | Distinguishing features of the quoted Product and/ or overall project proposed. | 15         | To be assigned by the Technical Committee  | Form E: Project Proposal Form |
| <b>Grand Total</b>  |  |   | <b>100</b> |  |                               |

|                             |   |
|-----------------------------|---|
| <b>Technical Evaluation</b> | Bids shall be evaluated on both Eligibility and Technical Qualification Criteria. Bidders meeting the Eligibility Criteria and able to secure <b>70 percent</b> in Technical qualification shall be declared as Technically Qualified Bidders for the next step, i.e. Opening of Financial Bid.   |
| <b>Financial Evaluation</b> | Detailed analysis of the price schedule based on requirements listed in Section 5 and quoted for by the bidders in Form F.<br>Price comparison shall be based on the landed price, including transportation, insurance and the total cost of ownership (including spare parts, consumption, installation, commissioning, training, special packaging, etc., where applicable) Comparison with budget/ internal estimates. Tender will be awarded on <b>least-cost basis</b> . |

## Section 5a: Technical Specifications of the Required Goods

| <b>LOT#01: PHYSIOLOGY BASICS</b> |   |  |     |                   |
|----------------------------------|---|--|-----|-------------------|
| S.NO                             | ITEMS                                     | Specs  | Qty | Country of Origin |
| 1                                | Sphygmomanometers (Mercury) /BP apparatus | <ul style="list-style-type: none"> <li>• Compact, portable desktop unit is self-contained in an aluminium case with push button lock</li> <li>• Reservoir lock secures mercury when unit is not in use.</li> <li>• Cotton cuff, latex bladder &amp; latex bulb with valve.</li> <li>• Measurable Range: 0-300mmHg; Increment: 2mmHg</li> <li>• Mercury Purity: 99.999%</li> <li>• Housing: Aluminium die-casting</li> <li>• Valve: Standard type</li> <li>• For Reference/Equivalent: Model 605P</li> </ul>  | 20  | Any               |
| 2                                | <b>Haemocytometers</b>                    | <ul style="list-style-type: none"> <li>• Reference/Equivalent: 0630010 /Marienfeld-Superior (Neubauer Improved, dark lines)</li> <li>• Complete set in a plastic case consisting of: <ul style="list-style-type: none"> <li>○ counting chamber with double counting grid</li> <li>○ haemocytometer cover glasses with thickness 0.4 mm each</li> </ul> </li> <li>1 blood diluting pipette Thoma red and white <ul style="list-style-type: none"> <li>○ 2 silicone tubings with approx. 16 cm length</li> </ul> </li> <li>• each 1 plastic adapter red and white</li> </ul> | 15  | EU/UK             |
| 3                                | ESR pipettes                              | Made of glass material<br>Total length: 300mm<br>Graduated from 0 to 195mm at every 1mm  | 50  | EU/UK             |
| 4                                | <b>Hemoglobin Meters</b>                  | <ul style="list-style-type: none"> <li>• Reference/Equivalent: 3243000 / Marienfeld-Superior</li> </ul>  | 20  | EU/UK             |

|    |                               |  |    |       |
|----|-------------------------------|--|----|-------|
|    |                               | <p>(Haemometers acc. to Sahli)</p> <ul style="list-style-type: none"> <li>The Marienfeld Superior haemometer according to Sahli is supplied as complete set consisting of:</li> <li>polystyrene support with 2 coloured rods and opal glass plate</li> <li>comparator tube</li> <li>haemoglobin pipette 20 µl acc. To Sahli</li> <li>silicone tubing of approx. 16 cm length</li> <li>white mouthpiece</li> <li>dropping pipette with rubber teat stirring rod</li> <li>acid vial</li> </ul> <p>cleaning brush</p> |    |       |
| 5  | Oxygen cylinders              | <p>7.5-liter small cylinder.<br/>Fully medicated Oxygen Gas<br/>New valve with rubber tubings and facemask<br/>Attested cylinder according to ISO 9809-1 or equivalent.</p>  | 03 | any   |
| 6  | Clinical Thermometers         | <p>Thermometers -Clinical, prismatic, Mercurial- Oral, 35°C - 42°C</p>   | 30 | China |
| 7  | Microhematocrit reader        | <p>For determination of packed cell volume, using 75 mm capillary tubes with total fluid column heights between 40 and 70 mm.</p>  | 05 | China |
| 8  | Stethoscopes                  | <p>Clinical stethoscope with diaphragm and bell (best Quality)<br/>FDA or Jis or Eu Stethoscopes.</p>  | 35 | China |
| 9  | E type charts/Snellen's chart | <p>Snellen Wall Eye Chart with Big Letter at the top and progressively smaller at the bottom to 20/12.5<br/>Two smaller groups 20/25 to 20/12.5 for repetitive eye testing.<br/>Snellen chart includes Red and Green color bars for an easy and helpful color vision test. Made of Plastic or washable.<br/>Snellen Wall Chart 14 in x 9 in. And the top center hole, easy to hang on the wall.</p>  | 15 | any   |
| 10 | Ishihara charts               | <p>Includes four special plates for tests to determine the kind and degree of defect in color vision.<br/>Makes use of the peculiarity that in red-green blindness, blue and yellow appear remarkably bright compared with red and green. Color plates encased in specially designed album-type books for ease of handling. Detailed instructions included.</p>  | 10 | Japan |
| 11 | Jaeger's chart                | <p>Product Dimensions: 6.83 x 4.62 x 0.1 inches<br/>Chart with progressively larger letters from top to bottom<br/>Made of Plastic or washable.</p>  | 10 | any   |
| 12 | Assorted Torches              | <p>Yellow light, handheld size, chargeable/battery torches for medical examination.</p>  | 10 | any   |
| 13 | Glucometers                   | <p>SIZE. 97.8 x 46.8 x 19.1mm.<br/>WEIGHT. 50 g.<br/>FAST. Results in 5 seconds.<br/>MEMORY. 500 test results.<br/>ALERTS. For expired strips.<br/>Sample required: 0.4- 4µL of blood required<br/>Measuring range: 10 mg/dL – 600 mg/dL<br/>Measuring conditions:<br/>Temperature: 8°C to 44°C (46°F to 111°F)</p>  | 15 | EU/UK |

|    |                            |  |    |     |
|----|----------------------------|--|----|-----|
| 14 | Stop watches               | <p>Large Display.</p> <ul style="list-style-type: none"> <li>• Counts Up and Down (maximum 99 minutes 59 seconds).</li> <li>• Loud, Audible Alarm.</li> <li>• Magnetic Backing and Retractable Stand.</li> <li>• On/Off Switch to increase Battery Life.</li> <li>• Attractive Design.</li> <li>• Very Easy to Use.</li> <li>• Memory (remembers last setting used).</li> <li>• Dimensions 80x75x20mm</li> </ul>   | 30 | any |
| 15 | Percussion Hammers         | - The Medical Reflex Hammers feature handles made of stainless steel, chrome-plated steel or plastic. Each Hammer should come packaged in a poly-bag. Taylor reflex hammers, buck reflex hammers, dejerine reflex hammers, and others.   | 20 | any |
| 16 | Kymograph                  | <p>Stimulator specification: kymograph ons, output voltage: 0 to 25v, continuously variable in 3 ranges, o to 250 mv, 0 to 2.5 v and 25 v sockets: 2x4 mm sockets.</p> <ul style="list-style-type: none"> <li>• Impedance :&lt; 25 at max. Output current of 250 mA.</li> <li>• Pulse width: 6 present widths of 0.05,0.1,0.5,1.2 and 5 Ms.</li> <li>• Frequency: 0.1 to 100 Hz continuously variable in 3 ranges, 0.1 to 1.0 hz,1 to 10 Hz and 10 to 100 Hz.</li> <li>• Mode selection continuous, single and trigger via contact arms on spindle</li> <li>• Base dimensions: 460x230x220 mm (18.1x9x8.7in), H x W x D).</li> <li>• Weight: 7.5 kg (16.5lb)</li> </ul>  | 25 | any |
| 17 | Microhematocrit Centrifuge | <ul style="list-style-type: none"> <li>• Stainless steel chamber, compact structure, can use 8 different capacity rotors.</li> <li>• Safety Interlock system that prevents opening the centrifuge lid during running.</li> <li>• 10 programs can be stored, quickly recall the last used program.</li> <li>• Imbalance sensor, over speed and over temperature cut off</li> <li>• Easy operation, LCD touch screen, compressor control.</li> <li>• With Emergency lid lock release, in case of power off.</li> <li>• Maximum Speed 18500 rpm</li> <li>• Maximum RCF 19920xg</li> <li>• Rotors 24 x 1.5 ml</li> <li>• Display Touch LCD Display</li> <li>• Rotor Capacity 24 Pcs of Capillary</li> <li>• Timer Range 0- 99 Min</li> <li>• Motor Convert Motor</li> <li>• Control Microprocessor Controlled</li> <li>• Noise &lt; 60 dB(A)</li> <li>• Weight Approx. 01</li> </ul> | 2  | any |
| 18 | Finger Pulse Oximeter      | <ul style="list-style-type: none"> <li>• Measurement of arterial oxygen saturation (SpO2) and heart rate (Pulse)</li> <li>• Perfusion Index</li> </ul>   | 4  | any |



|    |  |  |        |       |
|----|--|--|--------|-------|
|    |  | <ul style="list-style-type: none"> <li>• High quality; High accuracy sensor</li> <li>• Interference resistance against ambient light</li> <li>• Accurate performance at low perfusion</li> <li>• Low power consumption</li> <li>• Pulse curve display</li> </ul> |        |       |
|    |  | Anti-shaking   |        |       |
| 19 | Tuning Forks                                   | • ONE set containing: 32, 64, 128, 256, 512, 1024, 2048, 4096 Hz   | 3 sets | any   |
| 20 | Weighting Machines                             | • Digital (Include Hight Scale, Measure weight upto 150 Kg)  | 5      | any   |
| 21 | Assorted Tourniquets (set)                     |  | 5      | Any   |
| 22 | Water Bath                                     | With Temperature control   | 3      | Any   |
| 23 | Bench top Centrifuge Machine                   |  | 3      | EU/UK |
| 24 | Protein electrophoresis with power supply midi | Protein electrophoresis with power supply midi   | 1      | EU/UK |

| LOT#02: PHYSIOLOGY EQUIPMENT'S |              |  |     |                  |
|--------------------------------|--------------|--|-----|------------------|
| S.NO                           | ITEMS        | Specs  | Qty | County of origin |
| 1                              | ECG machines | Specification of 12-Lead ECG Machine<br>- The equipment supplied should be compact, sturdy, easy to use and should have the following features<br>- ECG Acquisition: Simultaneous 12 lead acquisition (standard) with automatic injection of cal signal and pacemaker detection.<br>- Frequency Response : 0.05-150Hz within 3dB<br>- Time constant : >3 sec<br>- Input Impedance: >50M Ohms Input<br>- Current: 100dB A to D conversion: 24 bit<br>- Sampling frequency : 1000 per sec./channel<br>- Filters : Line frequency, base line and muscle filters<br>- Safety : IEC 60601-1, IEC-60601-2-25, Class I, Type CF<br>ECG Recording : 3/6/12-Channels print format of ECG waveforms with measurement table of all 12 leads, average complexes, marking and interpretation statements.<br>- Mode of Operations : Automatic and manual mode of operations<br>- Printing Process: High resolution and high-speed thermal print head.<br>- Paper Speed: 5/12.5/25/50 mm/s Patient Input: Fully floating and isolated, defibrillation protected Analysis: RR Trend, interpretation, arrhythmia analysis Storage: Built in memory to store more than 800 ECG events in PDF format, which can be retrieved latter on LCD screen or printed on | 03  | EU/UK            |

|   |                                   |   |    |                         |
|---|-----------------------------------|---|----|-------------------------|
|   |                                   | <p>printer. Interface: a) PC connectivity to transfer the data in PFD with required accessories and software. b) Direct connection to any USB printer c) USB port to transfer data on pen drive in PDF format</p> <ul style="list-style-type: none"> <li>- Display: 8" color, TFT LCD with LED graphics and touch screen</li> <li>- Display format: a) 3/6/12 lead real time ECG on LCD screen, b) Full print preview before printing Indication: Mains/ standby, low battery, selected lead group, loose electrode, paper tray empty, filter status.</li> <li>- Report Printing: 3/6/12 lead ECG, Average/RR Trend/Arrhythmia/Stress/Tabular report on a one page A4 Size Z-fold paper</li> <li>- Standardization: self-maintenance program for diagnosis of faults and built-in standard ECG waveform for calibration and functional checking. Accessories: ECG cable-10 Lead IEC, Standard accessories required for machine.</li> <li>- Power Requirement: Mains: 220 V (+/- 10%), 50 Hz. Battery: Ni-MH rechargeable for at least 2 hrs. of normal use with built in Battery charger</li> <li>- Standards: Should be USFDA, European CE approved product – certificate should be attached with offer</li> <li>- Supplier: quotation from only sole manufacturer or its authorized dealer will be accepted.</li> <li>- Warrantee: 3 years onsite comprehensive</li> <li>- Post Warrantee: The supplier must ensure the service of equipment at PAF-IAST and supply of spare parts for a period of at least 5 years.</li> <li>- Service Manuals: The supplier must ensure the supply of one set of service manuals failing which offer will not be considered.</li> </ul> |    |                         |
| 2 | Data Acquisition system Power Lab | <ul style="list-style-type: none"> <li>• PL26t04/AD instruments</li> </ul>  | 1  | EU/UK/America/Australia |
| 3 | Ophthalmoscope                    | <p>Halogen HPX® lamp illumination for true tissue color<br/> 18 unique aperture/filter combinations for greater versatility<br/> Polarizing filter virtually eliminates corneal reflection<br/> 68 lenses in single diopter steps for precise resolution (+38 to -30)<br/> Compatible with all existing Welch Allyn 3.5 V power sources. Look for the traditional "flat-top" design you've come to trust<br/> 3.5V coaxial ophthalmoscope</p>   | 02 | China                   |
| 4 | Complete Perimeters               | <p>Student model Eye Perimeter, supplied with the charts for left and right eye for Physiology Laboratory. Material: aluminum, brass, iron. Automatically records field to 90 degrees in all meridians. Spring check, giving an audible click to each 15° of rotation of the arc in either direction renders close scrutiny of dial plate unnecessary, and ensures accurate registration. A set of interchangeable and</p>  | 10 | any                     |

|   |                                     |  |   |  |
|---|-------------------------------------|--|---|--|
|   |                                     | permanent washable test objects is included with the instrument. The objects subtend angles of 4°, 1°, ½, ¼° and are in white, green, and red blue object in the last three sizes are also included. Supplies complete with transformer to work on 220 volt A/C mains with 100 charts.   |   |  |
| 5 | <b>Treadmill or Ergometer cycle</b> | <ul style="list-style-type: none"> <li>• Motorised treadmill</li> <li>• Horsepower: 1.95HP</li> <li>• Speed: 1-18km/h</li> <li>• Incline: Auto incline 1-15%</li> <li>• Weight Capacity: 120kg</li> <li>• Run Time: 45 minutes</li> <li>• Running Belt: 55x19 inches</li> <li>• LED</li> <li>• Foldable</li> <li>• For Reference/Equivalent</li> <li>• Heart rate monitor</li> <li>• O<sub>2</sub> Saturation</li> <li>• Emergency stop</li> </ul>   | 1 | any                                      |
| 6 | Regenerator (Large)                 | <ul style="list-style-type: none"> <li>• Frige and freezer</li> <li>• Simple household</li> <li>• Compressor warranty</li> <li>• Capacity 380L</li> <li>• Stabilizer/invertor include</li> </ul>   | 4 | any                                      |
| 7 | Deep freezer                        | <ul style="list-style-type: none"> <li>• -20 degree</li> </ul>   | 1 | any                                      |
| 8 | <b>Automatic Tissue Processor</b>   | <ul style="list-style-type: none"> <li>• Cassette baskets are gently rotated inside the circular chamber</li> <li>• More effective agitation than an impeller</li> <li>• Reagents can be pre-heated to up to 35°C</li> <li>• Minimizes tissue shock and facilitating reagent penetration</li> <li>• Alcohol quality measurement enables you to extend your reagent life</li> <li>• Provides significant cost savings</li> <li>• Automatic reagent rotation further extends reagent life using a proven system</li> <li>• Streamline workflow and increase productivity</li> <li>• Reduce maintenance time by replacing one bottle of each reagent, rather than all of them</li> <li>• Draw new reagents directly into the processor from your supplier bottles</li> <li>• No pouring, no mess, and no fumes</li> <li>• Run rapid biopsies during the day and conventional programs overnight</li> <li>• Compatible with IPA xylene-free processes as well as conventional reagents</li> <li>• Dimensions (D x W x H) 23 x 28 x 54 in (to top of monitor) 580 x 710 x 1370 mm (to top of monitor)</li> <li>• Reagents can be pre-heated to up to 35 °C, minimizing tissue shock and facilitating reagent penetration</li> <li>• When the chamber is opened, a fan pulls fumes through a filter to protect users from formaldehyde exposure</li> <li>• With intelligent software, it's easier to avoid mistakes that affect tissue quality</li> <li>• Reports are easily downloaded via a USB drive</li> </ul> | 1 | EU/UK/North America/Japan/Malaysia/Korea |

|    |  |   |   |  |
|----|--|---|---|--|
|    |  | <ul style="list-style-type: none"> <li>• Messages can be sent automatically to the laboratory information system</li> <li>• Remote alarms ensure that any problems are immediately addressed</li> <li>• monitoring system allows remote diagnostics over a HIPPA compliant, secure internet connection for immediate identification and resolution</li> </ul> <p>Reference/Equivalent: AnyVWR (10141-592)</p>   |   |  |
| 9  | <b>Embedding Station</b>                 | <ul style="list-style-type: none"> <li>• Brightly Illuminated and clutter free</li> <li>• User-adjustable LED lighting</li> <li>• Cool and contoured</li> <li>• Smooth and insulated user contact points</li> <li>• Constructed to eliminate pressure points and uncomfortable heat conditions</li> <li>• High capacity for high efficiency</li> <li>• Handle any sample size with ease</li> <li>• Workstation offers the first adjustable paraffin dispense paddle</li> <li>• Embed even super mega cassettes with ease</li> <li>• Intuitive user interface</li> <li>• Programmable asleep mode</li> <li>• Dependable performance</li> <li>• Adjustable cold plate with variable temperature +/- 5 ° C. Holds up to 72 blocks at a time</li> <li>• Cool LED lighting provides specimen illumination at five user-selectable intensities, without the clutter of awkward remote lighting</li> <li>• Temperatures: <ul style="list-style-type: none"> <li>• Wax reservoir: 122 to 158°F (50 to 70°C)</li> <li>• Cold spot: 41°F (5°C)</li> <li>• Hot spot: 122 to 158°F (50 to 70°C)</li> <li>• Tissue storage: 122 to 158°F (50 to 70°C)</li> <li>• Mold storage: 122 to 158°F (50 to 70°C)</li> </ul> </li> <li>• Coldplate: 10.4°F (-12°C)</li> </ul> | 1 | EU/UK/North America/Japan/Malaysia/Korea |
| 10 | <b>Paraffin Embedding Bath</b>           | <ul style="list-style-type: none"> <li>• Round and seamless</li> <li>• Sheet aluminum construction</li> <li>• Bath surface is black ceramic-coated steel</li> <li>• Improved visibility of tissue sections</li> <li>• Complete with thermostat reference dial and knob, thermometer holder, pilot light, 18-gauge three-wire rubber safety cord and plug, and skid-resistant feet</li> <li>• Temperature Range: 35 to 65°C (95 to 149°F)</li> <li>• Temperature Stability: ±1°C</li> <li>• Ext. W×D×H: 28 dia. x 9.2H cm (11 x 3<sup>5</sup>/<sub>8</sub>"), Rim: 3.2 cm (1<sup>1</sup>/<sub>4</sub>"</li> <li>• Int. W×D×H: Chamber: 21 dia. x 5D cm (8<sup>1</sup>/<sub>4</sub> x 2")</li> </ul> <p>Reference/Equivalent: VWR (<a href="#">80086-984</a>)</p>   | 1 | EU/UK/North America/Japan/Malaysia/Korea |
| 11 | <b>Oven-wax Embedding (100 °C)</b>       | <b>Oven-wax Embedding (100 °C)</b>  | 1 | Any                                      |
| 12 | <b>Microtome (Manual/Semi-Auto/Auto)</b> | <p><b>Section thickness range:</b></p> <p>0.5 µm to 100 µm (3 to 5 µm best slicing effect) (Fully Automatic)</p> <p>0.5 µm to 100 µm (3 to 5 µm best slicing effect) (Semi-Automatic)</p> <p>0.5 to 5 µm, in 0.5 µm increment</p> <p>5 to 20 µm, in 1 µm increment</p> <p>20 to 60 µm, in 5 µm increment</p> <p>60 to 100 µm, in 10 µm increment</p>  | 1 | EU/UK/North America/Japan/Malaysia/Korea |

|  |  |   |  |  |
|--|--|---|--|--|
|  |  | <p><b>Trimming thickness range:</b> 1 to 600 <math>\mu\text{m}</math><br/> 1 to 10 <math>\mu\text{m}</math>, in 1 <math>\mu\text{m}</math> increment<br/> 10 to 20 <math>\mu\text{m}</math>, in 2 <math>\mu\text{m}</math> increment<br/> 20 to 50 <math>\mu\text{m}</math>, in 5 <math>\mu\text{m}</math> increment<br/> 50 to 100 <math>\mu\text{m}</math>, in 10 <math>\mu\text{m}</math> increment<br/> 100 to 600 <math>\mu\text{m}</math>, in 50 <math>\mu\text{m}</math> increment</p> <p><b>Specimen retraction thickness:</b> 10 to 150 <math>\mu\text{m}</math>, In 1 <math>\mu\text{m}</math> increment</p> <p><b>Specimen vertical stroke:</b> 60 mm</p> <p><b>Specimen horizontally stroke:</b> 25 mm</p> <p><b>Specimen holder adjustment system:</b> Horizontal orientation (X axis): <math>\pm 8^\circ</math></p> <p><b>Max specimen size with C clamp (H×W):</b> 55 mm × 45 mm</p> <p><b>Power supply:</b> 100/240 V, 50/60 Hz</p> <p><b>Dimensions (W×D×H):</b> 560 × 470 × 300 mm</p> <ul style="list-style-type: none"> <li>• fully automated microtome, offers adjustable speed with three sectioning modes (Continuous, Step, Single) for users selection</li> <li>• Designed with streamlined molded housing, hand wheel for smooth running and stepping-motor advance technology for fine sectioning and trimming of specimen with selectable specimen retraction</li> <li>• Fully-automatic sectioning with adjustable speed with Three sectioning modes (Continuous, Step, Single) for users selection</li> <li>• Streamlined molded housing offers attractive appearance and easy maintenance</li> <li>• Advanced retraction function makes better sectioning and retraction value is adjustable</li> <li>• Electronic trim function to switch from trim to section mode</li> <li>• Section counting function sums total section pieces and overall thickness</li> <li>• Signal and stepper motor to control specimen feeding</li> <li>• Automatic memorized coarse feed and reload function improves cutting efficiency</li> <li>• Advanced slide mechanism and groove ensures the precision of specimen movement</li> <li>• Specimen fine orientation of <math>8^\circ</math> on X/Y axes</li> <li>• Universal specimen holder includes C clamp, Optional Cassette Clamp</li> <li>• Spacious and ingenious waste tray</li> <li>• A hand wheel force balancing system to adjust the balancing force during smooth and even rotations, sectioning</li> <li>• Two safety lock mechanisms on the hand wheel (one lock on top, other at any position)</li> <li>• Self-diagnostic prompt, Alarm system to warn forward and backward limitations</li> </ul> |  |  |
|--|--|---|--|--|

| LOT#03 ANATOMY |                              |   |     |  |
|----------------|------------------------------|---|-----|--|
| S.NO           | ITEMS                        | Specs   | Qty | Country of origin  |
| 1              | Mortuary for Cadavers        |   | 2   | any  |
| 2              | Dissecting Instrument Sets   | Instrument set should be containing two teasing needles (one straight and one bent), 1x2 teeth tissue forceps (rat tooth forceps), regular forceps, two dissecting scissor, cartilage knife or scalpel, scalpel handles #3 with replaceable #10-10 blades, one ruler, haemostatic forceps, Stainless steel probe, and zippered case.  | 4   | any  |
| 3              | Histology slide sets         | <b>Histology Slide Sets</b> <ol style="list-style-type: none"> <li>1. Prepared slides rom human or comparable mammalian tissue</li> <li>2. Stain: Haematoxylin &amp; eosin/Verhoef's, Silver, crystal violet and Luxol Fast Blue</li> <li>3. 100 slides/set representing all organ systems and tissues.</li> <li>4. For Reference/Equivalent<br/>Company: Carolina<br/>Item #: 311992</li> <li>5. Standard Accessories: Plastic slide boxes</li> </ol>  | 05  | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |
| 4              | <b>Torso Models (Male)</b>   | <ul style="list-style-type: none"> <li>• Human sized, hand painted, detailed, colourful replica made of high- quality plastic.</li> <li>• Prominent anatomical features should be represented in detail.</li> <li>• Brain, Stomach, Lungs, Heart, Liver/gall bladder, intestine, kidney, bladder should be removable in parts.</li> <li>• For reference/Equivalent</li> </ul> Company: 3B<br>Item #: 9985-1000191<br><ul style="list-style-type: none"> <li>•Standard accessories: Stable removable base, Dust covers, Manual in English</li> </ul> | 5   | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |
| 5              | <b>Torso Models (Female)</b> | <ul style="list-style-type: none"> <li>• Human sized, hand painted, detailed, colourful replica made of high- quality plastic.</li> <li>• Prominent anatomical features should be represented in detail.</li> <li>• Brain, Stomach, Lungs, Heart, Liver/gall bladder, intestine, kidney, bladder should be removable in parts.</li> <li>• For reference/Equivalent Company: 3B</li> </ul> Item #: 9985-1000186<br>Standard accessories: Stable removable base, Dust covers, Manual in English   | 5   | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |

|   |  |   |           |  |
|---|--|---|-----------|--|
| 6 | <b>Cross Sectional Torso Model</b>                                       | <ul style="list-style-type: none"> <li>• Plastic, Natural size (more than 1 meter), Male/female, divided into 15 horizontal slices cut at different levels.</li> <li>• Possibility to remove each individual disc within the torso.</li> <li>• Possibility to move individual slices out on a metal bar and rotated along the sagittal plane to view the underside.</li> <li>• Anatomical structures including bones, muscles, organs, blood vessels and nerves should be shown on both sides of the sections</li> <li>• Stable base/ tripod.</li> <li>• For reference/Equivalent<br/>Company: 3B<br/>Item #: 9985-1001237</li> </ul> <p>Standard accessories: Stable removable base, Dust covers, Manual in English</p>  | <b>1</b>  | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |
| 7 | <b>Upper Limb (muscles, vessels, nerves and joints) anatomical model</b> | <ul style="list-style-type: none"> <li>• All models should be made of high-quality plastic, dissectible showing detailed anatomy of muscles, vessels, and nerves. tendons, bone components of upper limb. Parts should be numbered for easy identification. <ul style="list-style-type: none"> <li>a. Shoulder joint with rotator cuff</li> <li>b. Superficial and deep muscles of arm and forearm.</li> <li>c. Elbow joint with cubital fossa</li> <li>d. Anatomical structures of hand</li> </ul> </li> <li>• For reference/Equivalent<br/>Company: 3B<br/>Item #: 9985-1002387<br/>Item #: 9985-1000358<br/><br/>Item #: 9985-1000179<br/>Item #: 9985-1000003</li> </ul> <p>• Standard accessories: Stable removable base, Dust covers, Manual in English</p> | <b>10</b> | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |
| 8 | <b>Lower Limb (muscles, vessels, nerves and joints) anatomical model</b> | <ul style="list-style-type: none"> <li>• High-quality plastic models,</li> <li>• Dissectible showing detailed anatomy of muscles, vessels and nerves tendons, bone components of upper limb.</li> <li>• Parts should be numbered for easy identification. <ul style="list-style-type: none"> <li>a. Hip joint/ Inguinal fossa</li> <li>b. Superficial and deep muscles of lower limb.</li> <li>c. Knee joint with popliteal fossa</li> <li>d. Anatomical structures of foot</li> </ul> </li> </ul>  | <b>10</b> | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |

|    |   |  |   |  |
|----|---|--|---|--|
|    |   | <ul style="list-style-type: none"> <li>For reference/Equivalent<br/>Company: 3B<br/>Item #: 9985-1000352/ 9985-1002390<br/>Item #: 9985-1000178<br/>Item #: 9985-1000360<br/>Item #: 9985-1000177</li> </ul> <p>Standard accessories: Stable removable base, Dust covers, Manual in English</p>  |   |  |
| 9  | <b>Head &amp; Neck (muscles, vessels, nerves and joints) anatomical model</b> | <ul style="list-style-type: none"> <li>Life size, High-quality plastic models,</li> <li>Dissectible showing detailed anatomy of muscles, vessels and nerves tendons, bone components of upper limb.</li> <li>Parts should be numbered for easy identification. <ul style="list-style-type: none"> <li>a. Showing vessels and nerves of head and neck and brain.</li> <li>b. Muscles (superficial and deep of head with nerves,</li> <li>c. Model with parotid and submandibular glands illustrated with their relations.</li> <li>d. Sagittal section (Half head): illustrating medial surface the head section on inner half and muscles on outer half.</li> </ul> </li> <li>For reference/Equivalent Company: 3B<br/>Item #: 9985-1000221<br/>Item #: 9985-1000214<br/>Item #: 9985-1000215<br/>Item #: 9985-1000218</li> </ul> <p>Standard accessories: Stable removable base, Dust covers, Manual in English</p> | 8 | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |
| 10 | <b>Eye Model</b>  | <ul style="list-style-type: none"> <li>Plastic, human eye model 5 times that of normal size</li> <li>Dissectible and includes sclera, cornea, eye muscle attachments, choroid, iris, lens vitreous humor, eyelids, lacrimal apparatus, and anatomical features around eye.</li> <li>Base of bony orbit.</li> <li>For reference/Equivalent<br/>Company: 3B<br/>Item #: 9985-1001263</li> </ul> <p>Standard accessories: Stable removable base, Dust covers, Manual in English</p>   | 4 | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |
| 11 | <b>Nose Model</b>   | <ul style="list-style-type: none"> <li>Magnified, Plastic model illustrating median section through the nose and nasal passages.</li> <li>Includes nasal cavity, soft and hard palate, uvula, Eustachian tube and pharyngeal tonsil.</li> <li>Reverse side showing ethmoid and maxillary sinus cavities.</li> </ul>  | 4 | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |



|    |  |   |   |  |
|----|--|---|---|--|
|    |  | <ul style="list-style-type: none"> <li>For reference/Equivalent Company: 3B Item #: 9985-1005531</li> <li>Standard accessories: Stable removable base, Dust covers, Manual in English</li> </ul>  |   |  |
| 12 | <b>Ear Model</b>                       | <ul style="list-style-type: none"> <li>Magnified, Plastic, human ear representing outer, middle, and inner ear.</li> <li>Removable eardrum with ossicles, cochlea, and bony labyrinth</li> <li>For reference/Equivalent Company: 3B Item #: 9985-1008553</li> <li>Standard accessories: Stable removable base, Dust covers, Manual in English</li> </ul>  | 4 | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |
| 13 | <b>Histology Models of each system</b> | <ul style="list-style-type: none"> <li>Organ of Corti Model/ Skin histology/ layers of retina with individual cellular components and detailed microscopic structure.</li> <li>For reference/Equivalent Company: 3B</li> <li>Item #: 9985-1010005</li> <li>9985-1000291</li> </ul> <p>Standard accessories: Stable removable base, Dust covers, Manual in English</p>   | 1 | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |
| 14 | <b>General Embryology Models</b>       | <p>Enlarged plastic model with ovaries and fallopian tubes and uterus, illustrating ovulation, stages of fertilization/ first week of development.</p> <p>For reference/Equivalent Company: 3B</p> <p>Item #: 1000320 [L01]</p> <ul style="list-style-type: none"> <li>Standard accessories: Stable removable base, Dust covers, Manual in English</li> </ul>   | 3 | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |
| 15 | <b>Abdominal Viscera Models</b>        | <p>Human Stomach- showing different layers of stomach wall. The section should be easily split into two parts to show inner structural details. The vessels, nerves and sphincters should be visible on the model.</p> <p>Human Kidneys model with posterior abdominal structures: should show anatomy of the human urinary system and digestive system. Vessels and nerves should be illustrated.</p> <p>Haemorrhoid Model Life-sized frontal section of the rectum showing sphincter, mucous membrane, venous plexus, showing internal haemorrhoids during stage I and II as well as external haemorrhoids. Stage III and IV are also shown.</p> <p>Cut-away view GI Tract Model of the small and large intestine with common pathologies: adhesions, appendicitis, bacterial infections, cancer, Crohn's disease, diverticulitis, polyps, spastic colon, and ulcerative colitis.</p> <p>For reference/Equivalent Company: 3B</p> | 7 | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |

|    |                      |   |   |  |
|----|----------------------|---|---|--|
|    |                      | <p>Item #: 9985-1008496</p> <p>Item #: 9985-1012787</p> <p>Item #: 1000309 [K22/2]</p> <p>Item #: 1000315 [K27]</p> <ul style="list-style-type: none"> <li>• Standard accessories: Stable removable base, Dust covers, Manual in English</li> </ul>   |   |  |
| 16 | <b>Liver Models</b>  | <p>The liver-gallbladder model: should show full size liver and gallbladder with cut-away section showing inner anatomy of gallbladder, including gallstones.</p> <p>Liver with gall bladder model showing the liver with ducts, Gall bladder, Pancreas, Duodenum, Vessels, Extra-hepatic ducts with gall bladder, Main pancreatic duct and their orifices.</p> <p>Liver model showing external features including 4 lobes with gall bladder, Extrahepatic ducts, Hilus vessels.</p> <p>Liver model showing external features including lobes with gall bladder, extrahepatic ducts, hilus vessels</p> <p>For reference/Equivalent Company: 3B</p> <p>Item #: 1008550 [VE315]</p> <p>Item #: 1014209 [K25]</p> <ul style="list-style-type: none"> <li>• Standard accessories: Stable removable base, Dust covers, Manual in English</li> </ul>      | 8 | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |
| 17 | <b>Kidney Models</b> | <p>Enlarged, the kidney section, model depicting longitudinal section of the human kidney.</p> <p>Plastic human kidney with adrenal gland model: should show anatomical features of Kidney with ureter and adrenal gland, including vessels and nerves.</p> <p>Enlarged Model showing sagittal section of kidney with illustration of zones, renal cortex, and medulla.</p> <p>Section of a kidney lobe with a diagrammatic depiction of nephrons with Henle's loops of different lengths and diagrammatic depiction of the vascular supply</p> <p>For reference/Equivalent Company: 3B</p> <p>Item #: 1000295 [K09]</p> <p>Item #: 1000297 [K10/1]</p> <p>Item #: 1000301 [K13]</p> <p>Item #: 1000310 [K22/3]</p> <ul style="list-style-type: none"> <li>• Standard accessories: Stable removable base, Dust covers, Manual in English</li> </ul> | 7 | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |

|    |                                  |  |            |  |
|----|----------------------------------|--|------------|--|
| 18 | <b>CVS Models</b>                | <p>a. Human heart model: at least 2-times life-size heart model showing external and internal anatomical features of heart including blood vessels and nerves. The atrial and ventricular walls should be removable to reveal detailed and realistic heart anatomy. b. Artery model: Oversized section of an artery showing atherosclerotic plaques, with gradual build-up of cholesterol deposits.</p> <p>c. Heart conducting system model: Conducting system of the heart should be illustrated and walls of the chambers should be removable.</p> <p>For reference/Equivalent Company: 3B</p> <p>Item #: 8000845</p> <p>Item #: 1019311 [G08/3]</p> <p>Item #: 1019531</p> <p>Item #: 1000269 [G13]</p> <p>Standard accessories: Stable removable base, Dust covers, Manual in English</p>  | <b>6</b>   | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |
| 19 | <b>Respiratory System Models</b> | <p>Full size lung model showing with cut-away of a side of lung showing bronchus, arteries, vein, lymph nodes, bronchial passages, and trachea bifurcation.</p> <p>Bronchial tree model: The model should show primary and lobar bronchi depicted in color on the bronchial tree model.</p> <p>Segmented lung model: should show the topography of lungs with representation of the bronchial tree close to the heart, trachea, esophagus, and aorta.</p> <p>Pulmonary lobule model: Should show structure of the airway in the lungs up to the alveolus. Pulmonary vessels and their capillary networks, branch of a bronchial artery, pulmonary pleura, connective tissue septum, single opened alveolus with surrounding capillary network.</p> <p>For reference/Equivalent Company: 3B</p> <p>Item #: 1008493 [G60] Item #: 1008494 [G70] Item #: 1000270 [G15] Item #: 1000274 [G23]</p> <p>Standard accessories: Stable removable base, Dust covers, Manual in English</p> | <b>8</b>   | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |
| 20 | <b>Human's loose bones</b>       | <p>•Disarticulated real human skeleton (adult)</p> <p>All bones should be natural / original part of human Skeleton. All the joints, sutures, fissures, foramina, and processes should be portrayed with utmost accuracy/ must be intact. No single bone should be missing from the set. Bones should be neat and clean and glazed.</p>  | <b>100</b> | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |

|    |                                      |  |          |  |
|----|--------------------------------------|--|----------|--|
| 21 | <b>Articulated Skeletons (adult)</b> | <p>Plastic, life size assembled human skeleton models.</p> <p>Should be realistic, with natural colour and size, close to realistic weight of 200 bones.</p> <p>Teeth should be individually inserted.</p> <p>It should be mounted on a stable stand. should consist of all bones of the body.</p> <p>For reference/Equivalent Company: 3B</p> <p>Item #: 9985-1000010</p> <p>Standard accessories: Dust cover</p>   | <b>8</b> | <b>any</b>   |
| 22 | <b>Articulated Vertebral Columns</b> | <p>Plastic, life size, model should consist of realistic, natural colour and weight.</p> <p>Should have pelvis and occipital plate.</p> <p>For reference/Equivalent Company: 3B</p> <p>Item #: 9985-1000118</p> <p>Standard accessories: Stable removable base</p>   | <b>3</b> | <b>any</b>   |
| 23 | <b>Cross Sectional Body Model</b>    | <ul style="list-style-type: none"> <li>• Plastic, Natural size (more than 1 meter), Male/female, divided into 15 horizontal slices cut at different levels.</li> <li>• Possibility to remove each individual disc within the torso.</li> <li>• Possibility to move individual slices out on a metal bar and rotated along the sagittal plane to view the underside.</li> <li>• Anatomical structures including bones, muscles, organs, blood vessels and nerves should be shown on both sides of the sections</li> </ul> <p>Stable base/ tripod.</p> | <b>1</b> | <b>any</b>   |
| 24 | <b>Anatomy CDs</b>                   | Various Anatomy CDs showing different body parts and systems anatomically.   | <b>5</b> | <b>Any</b>   |
| 25 | <b>Brain Anatomical Model</b>        |  | <b>4</b> | EU/UK/Japan/<br>North America/<br>Indonesian/<br>Malaysian/<br>Korea |

| <b>LOT#04: BIOCHEMISTRY</b> |  |  |            |                         |
|-----------------------------|--|--|------------|-------------------------|
| <b>S.NO</b>                 | <b>ITEMS</b>                           | <b>Specs</b>   | <b>Qty</b> | <b>County of origin</b> |
| 1                           | Blood group tiles                      | Ceramic Tile with 12 holes, Reusable after washing                                       | 20         | Any                     |
| 2                           | Assorted capillary tubes (Heparinized) | Length 80 mm, Inner diameter:1.15 mm, Outer diameter: 1.55 mm, Category: Capillary tubes | 50         | EU/UK                   |
| 3                           | Assorted capillary tubes (plain)       | Length 80 mm, Inner diameter:1.15 mm, Outer diameter: 1.55 mm, Category: Capillary tubes | 50         | EU/UK                   |

|    |  |   |     |       |
|----|--|---|-----|-------|
| 4  | Assorted centrifuge tubes with cork        | 12*60mm Transparent Plastic Round Bottom Test Tube with Cork Stoppers   | 50  | EU/UK |
| 5  | Assorted EDTA tube                         | Light Lavender Colored Cap, Additive EDTA K3, Volume 2 mL, 13*75mm, Rubber stopper Short Grey   | 100 | Any   |
| 6  | Glass rods                                 | Borosilicate Glass, O. D 4mm-88mm   | 15  | any   |
| 7  | Assorted microscopes slides                | Entirely made from ABS and Polypropylene, Dimensions (L x W) 75 x 25 mm   | 50  | Any   |
| 8  | Assorted petri dishes (various size)       | Transparent and reusable, (L x W) 60x15mm, 100x15mm   | 500 | Any   |
| 9  | Spirit lamp/gas burner                     | Burner with 0.50in (12.7mm) aluminum mixing tube with flame stabilizer, circular base with opening, and 5/16in (7.9mm) OD serrated gas inlet connection. Burner height is 6.125in (156mm) | 20  | Any   |
| 10 | Assorted wintrobe's tubes                  | Glass tubes, open at both ends, Length 115mm, Inner diameter 3mm  | 20  | Any   |
| 11 | Set of pregnancy test kits                 | Sensitivity of 25 mIU/mL, and is capable of detecting pregnancy as early as 10 days after a possible conception.  | 02  | Any   |
| 12 | Assorted pregnancy strips                  | CE mark, Big result window, pregnancy detection of 99.9% accurate result, easy to use, includes a pair of disposable gloves, result within minutes  | 2   | Any   |
| 13 | Stain dropping bottles (250 ml)            | Capacity 250 ml, Height without lid 145 mm, Body Ø 142 mm, Mouth Ø inside 20 mm, Thread Ø 28 mm   | 04  | Any   |
| 14 | Wash bottles                               | Made of Teflon, fluoropolymer, Autoclavable, 500 mL, Translucent, Screw Cape  | 04  | Any   |
| 15 | Adjustable staining racks                  | Slide Staining Rack Constructed of stainless steel. Adjustable to fit trays or sinks up to 533mm (21") inside.  | 04  | Any   |
| 16 | Glass beaker (500 ml) pyrex, graduated     | Borosilicate Glass, Compatible with Autoclave cycles of 121°C at 15 psi for 15 minutes  | 10  | Any   |
| 17 | Glass cylinder (500 ml) pyrex, graduated   | Borosilicate Glass, Compatible with Autoclave cycles of 121°C at 15 psi for 15 minutes  | 10  | Any   |
| 18 | Staining jars                              | Hold 10 slides back-to-back   | 20  | Any   |
| 19 | Knife sharpener                            | Microsharp Iron Plate   | 01  | Any   |
| 20 | Simple hand-held magnifying glass          | 55 Grams, 3x magnifying glass   | 20  | Any   |
| 21 | Bottle of RBC solution                     | 200 mL lysis buffer   | 01  | EU/UK |
| 22 | Bottle of WBC solution                     | 200 mL lysis buffer   | 01  | EU/UK |
| 23 | Bottle of xylene (01 L)                    | Xylene mixture of isomers, anhydrous, ≥99%  | 02  | EU/UK |
| 24 | Antisera A, B & D                          | 3 x 10 mL   | 03  | EU/UK |
| 25 | Cedar wood oil (50ml)                      | Immersion oil, low viscosity  | 01  | Any   |
| 26 | Bottle of HCL (IL)                         | 2.5 litre Quantity<br>36.46 molecular weight  | 01  | any   |
| 27 | Bottle of Leishman's stain (500ml bottles) | Odorless, soluble in water (4mg/ml),methanol (1mg/ml),ethanol (4mg/ml),and methyl cellosolve (20mg/ml).   | 5   | EU/UK |

|    |   |  |    |   |
|----|---|--|----|---|
| 28 | Bottle of methylated spirit (500ml bottles)                     | Colorless Liquid, Amber glass bottle, Boiling point 78.2°C, Melting point -114.1°C, 1 Liter  | 1  | any   |
| 29 | Bottle of platelet solution (500ml) (Ree'S & Ecker's)           | Liquid, Natural Poly Bottle  | 01 | any   |
| 30 | <b>MICROLAB</b><br>(Semi-automated clinical chemistry analyzer) | <p><b>LIGHT SOURCE</b></p> <ul style="list-style-type: none"> <li>• Quartz-halogen lamp 12V-20W.</li> </ul> <p><b>WAVELENGTH RANGE</b></p> <ul style="list-style-type: none"> <li>• Automatic by 12 positions filter wheel; • 6 standard interference filters: 340,405, 505, 546, 578 and 620 nm; • 6 positions for optional filters.</li> </ul> <p><b>PHOTOMETRIC RANGE</b></p> <ul style="list-style-type: none"> <li>• -0.1 to 2.3 Absorbance.</li> </ul> <p><b>DETECTOR</b></p> <ul style="list-style-type: none"> <li>• Photo diode (320-1000 nm).</li> </ul> <p><b>BLANKING</b></p> <ul style="list-style-type: none"> <li>• Automatic zero setting.</li> </ul> <p><b>OPERATOR INTERFACE</b></p> <ul style="list-style-type: none"> <li>• Membrane keyboard, for direct function and alpha-numeric entry; • Optional external keyboard; • High contrast graphical LCD display; • Real time clock, 24 hours system.</li> </ul> <p><b>LANGUAGES</b></p> <ul style="list-style-type: none"> <li>• English, Spanish , French , Germany, Portuguese</li> </ul> <p><b>MEASUREMENT PROCEDURES</b></p> <ul style="list-style-type: none"> <li>• Kinetic, with linearity check: • Kinetic, with linearity check and sample slope blank; • Two point kinetic, with or without reagent blank; • End point, with or without reagent blank; • Bichromatic end point, with or without reagent blank; • End point, with sample blank and with or without reagent blank.</li> </ul> <p><b>MULTIPLE TESTING</b></p> <ul style="list-style-type: none"> <li>• Up to nine replicates; • Means, SD and CV.</li> </ul> <p><b>MEASURING TIME</b></p> <ul style="list-style-type: none"> <li>• Programmable, 2 to 998 seconds for kinetic and two point type of tests; • For end point fixed at 2 seconds.</li> </ul> <p><b>DELAY TIME</b></p> <ul style="list-style-type: none"> <li>• Programmable, 0 to 999 seconds.</li> </ul> <p><b>METHOD PARAMETER SETTINGS</b></p> <p>a.o.</p> <ul style="list-style-type: none"> <li>• Method name; • Measurement mode; • Wavelength 1 and 2; • Aspiration volume; • Measurement delay; • Measurement time; • Factor; • Concentration standards; • Reagent blank y/n; • Sample blank y/n;</li> </ul> | 2  | EU/UK/<br>North America/<br>Australia/<br>Korea |

|    |                               |   |    |       |
|----|-------------------------------|---|----|-------|
|    |                               | <ul style="list-style-type: none"> <li>• Units for results; • Levels for flagging; • Curve fit y/n; • Linearity check.</li> </ul> <p><b>CALIBRATION</b></p> <ul style="list-style-type: none"> <li>• Factor, one-point, two-point and multi-point; • Automatic on 1 standard (linear mode); • Automatic on up to 10 standards (non linear mode).</li> </ul> <p><b>QUALITY CONTROL</b></p> <ul style="list-style-type: none"> <li>• Two controls per test; • QC survey of last 30 control measurements; • Levey Jenning plot; • High/low flags.</li> </ul> <p><b>FLOWCELL</b></p> <ul style="list-style-type: none"> <li>• Metal, with quartz windows, measuring volume 30 µl.</li> </ul> <p><b>TEMPERATURE CONTROL</b></p> <ul style="list-style-type: none"> <li>• By means of Peltier elements; • Fixed temperature at 37°C.</li> </ul> <p><b>ASPIRATOR SYSTEM</b></p> <ul style="list-style-type: none"> <li>• Internal pump of bellows type, driven by stepper motor; • Back panel connection for waste; • Aspiration volume programmable.</li> </ul> <p><b>PRINTER</b></p> <ul style="list-style-type: none"> <li>• Internal matrix printer; • Normal paper; • External printer port available.</li> </ul> <p><b>SIGNAL INTERFACE</b></p> <ul style="list-style-type: none"> <li>• Centronics type parallel port; • RS 232 type serial port; • PS 2 type port for external keyboard.</li> </ul> <p><b>QUALITY</b></p> <ul style="list-style-type: none"> <li>• UL; • CE; • CB certificate</li> </ul> <p><b>POWER REQUIREMENTS</b></p> <ul style="list-style-type: none"> <li>• 100-240 VAC nominal, 50/60 Hz;</li> </ul> |    |       |
| 31 | <b>PH Meter</b>               | <ul style="list-style-type: none"> <li>• Acid/Base Detection</li> <li>• Bench Top</li> <li>• Combination Electrodes</li> <li>• Standard Accessories</li> <li>• Standard Buffer</li> </ul>   | 2  | EU/UK |
| 32 | <b>Hot Box Oven</b>           | 23L<br>House hold   | 1  | any   |
| 33 | <b>Organ bath for ileum</b>   |   | 10 | Any   |
| 34 | <b>Frog board with browed</b> |   | 10 | any   |
| 35 | <b>Fume Hood</b>              | <ul style="list-style-type: none"> <li>• 5 feet</li> <li>• Face velocity &gt;0.5m/s</li> <li>• Glan window</li> <li>• Illumination</li> <li>• Florescent lamp and UV lamp</li> </ul>  | 1  | any   |

| LOT#05: FORENSICS BASICS |                                    |  |     |                   |
|--------------------------|------------------------------------|--|-----|-------------------|
| S.NO                     | ITEMS                              | Specs  | Qty | Country of origin |
| 1                        | <b>Male or Female Skeleton</b>     | <ul style="list-style-type: none"> <li>• 3-part removable skull (skullcap, base of skull, mandible)</li> <li>• Removable arms and legs</li> <li>• Specially mounted hip joints to demonstrate natural rotation of the hips</li> <li>• Flexible spine with soft intervertebral discs</li> <li>• 3 year manufacturer's warranty</li> <li>• supplied with a hanging stand that can be used on a table, or mounted to the wall</li> </ul> Reference/Equivalent: VWR(470224-860)  | 1   | any               |
| 2                        | UV lamps for examination of stains | UV lamps for examination of stains spectrum of light between 10 and 400 nm   | 02  | any               |
| 3                        | Autopsy examination sets           | Autopsy examination sets should include followings: <ul style="list-style-type: none"> <li>• Sterilizing Stainless Steel Box</li> <li>• Enterotomy Bowel Scissors Straight</li> <li>• Rib Shear "Doyen" type</li> <li>• Cartilage Knife Blade</li> <li>• Autopsy Knife Blade</li> <li>• Weitlaner Retractor</li> <li>• Stainless Steel Collin Mallet Double Heads</li> <li>• Tissue Forceps</li> <li>• Dissecting Forceps</li> <li>• Bone Cutting forceps</li> <li>• Liston Bone Cutting Forceps Straight</li> <li>• Satterlee Saw</li> <li>• Gouges</li> <li>• Chisels</li> <li>• Needles</li> <li>• Retractors</li> <li>• Clamps</li> <li>• Scalpel Blade Remover</li> </ul> | 02  | any               |
| 4                        | Assault weapons Replicas           | <b>Assault Weapons (or their replicas)</b><br><br>Lead Shot<br><br>Pellets<br><br>Pistol Magazine<br><br>Kalashonkov (AK 47)   | 10  | any               |



|   |                          |   |    |            |
|---|--------------------------|---|----|------------|
|   |                          | Revolver<br>Ropees<br>Sickles<br>Soil Borrowers<br>Hammers<br>Dagger<br>Stab (Small Knife)<br>Stab (Medium Knife)<br>Stab (Large Knife)<br>Chopper (Small)<br>Chopper (Large)<br>Ice Pick<br>Plier Palas<br>Saw<br>Axe<br>Screw Driver Set<br>Iron Chain<br>Chisel<br>Spade<br>Pick Mattock<br>Swords |    |            |
| 5 | <b>X-Ray Illuminator</b> | X-Ray Illuminator   | 2  | <b>any</b> |
| 6 | Models                   | <ul style="list-style-type: none"> <li>• Ligature Marks</li> <li>• Stab Wounds</li> <li>• Skull Fracture</li> <li>• Head Injury</li> <li>• Wound of Entry</li> <li>• Goose Skin</li> <li>• Graze</li> <li>• Wound of Exit</li> <li>• Cuts</li> <li>• Stab Wound</li> <li>• Liver Stab</li> </ul>      | 20 | any        |

|    |  |   |        |          |
|----|--|---|--------|----------|
|    |  | <ul style="list-style-type: none"> <li>Cuts</li> <li>Nail Marks</li> <li>Froth from Nose to Mouth</li> <li>Petechial Hemorrhages (Eye)</li> </ul>   |        |          |
|    |  | Postmortem Lividity   |        |          |
| 7  | Model  | Septic tank<br>Water filtration plan  | 1 each | Pakistan |
| 8  | Mid Arm Circumference (MUAC) Tapes                 | Mid Arm Circumference (MUAC) Tapes  | 5      | Pakistan |
| 9  | Various contraceptive devices and oral pills (set) | Various contraceptive devices and oral pills (set)  | 1      | Pakistan |
| 10 | Growth Charts                                      | Growth Charts (weekly)  | 50     | Pakistan |
| 11 | Antenatal  | Antenatal Charts  | 50     | Pakistan |
| 12 | Measuring Tape Set                                 | Measuring Tape Set  | 3      | Pakistan |
| 13 | Tablets  | Water Purification Tablets (packs)  | 10     | Pakistan |
| 14 | Water Testing Kit                                  | Water Testing Kit for Chlorine  | 1      | Pakistan |
| 15 | EPI Vaccination                                    | EPI Vaccination <ul style="list-style-type: none"> <li>Injectable Polio vaccine (01)</li> <li>BCG Vaccine (01)</li> <li>Rota Virus Vaccine (01)</li> <li>Pneumococcal vaccine (01)</li> </ul> | 1      |          |

### LOT#06: FORENSICS MODEL

| S.NO | ITEMS  | Specs                                | Qty |
|------|--|--------------------------------------|-----|
| 1    | Model of inner table of skull showing circular hole with beveling  | The models should be of fiber glass. | 01  |
| 2    | Model of anterior profile of skull showing. Circular hole with clean cut margins on outer table of frontal bone with radiating fracture line – Wound of entry (or in shot wound) | The models should be of fiber glass. | 01  |
| 3    | Model of outer table of skull showing circular hole with beveling.   | The models should be of fiber glass. | 01  |
| 4    | Model of face showing a single circular Wound with muzzle imprint at the center of Forehead – wound of entry.  | The models should be of fiber glass. | 01  |
| 5    | Model of posterior profile of skull showing Circular hole with beveled margins, in the outer table of right partial bone.  | The models should be of fiber glass. | 01  |
| 6    | : Model of a human face exposing Tongue & Gums, showing inflammation and a blue-black line on the gums seen in CHRONIC MERCURY POISONING.  | The models should be of fiber glass. | 01  |

|    |  |                                      |    |
|----|--|--------------------------------------|----|
| 7  | Model of posterior profile of skull showing Circular hole with beveled margins, in the outer table of right parietal bone.                 | The models should be of fiber glass. | 01 |
| 9  | Model of lateral profile of skull showing a circular hole with clean cut margins with radiation fracture line at right side parietal bone. | The models should be of fiber glass. | 01 |
| 10 | Model of lateral profile of skull showing a circular hole with clean cut margins with radiation fracture line at right side parietal bone. | The models should be of fiber glass. | 01 |
| 11 | Face & upper torso showing ligature material encircled above the thyroid cartilage indicating HANGING (SUSPENSION)                         | The models should be of fiber glass. | 01 |
| 12 | Model of dorsum hand with patterned small superficial wounds indicating bite marks.  | The models should be of fiber glass. | 01 |
| 13 | Model of face showing around the left Eye-condition called as black eye.   | The models should be of fiber glass. | 01 |
| 14 | Model of human arm showing charring of the tissues   | The models should be of fiber glass. | 01 |
| 15 | Model of liver showing laceration of liver (also called as rupture of liver)   | The models should be of fiber glass. | 01 |
| 16 | Model of an infant showing tearing of scalp tissue, loss of skull bone and exposure of underlying brain condition called as AVULSION.      | The models should be of fiber glass. | 01 |
| 17 | Model of face of child showing tearing of a portion of scalp and exposure of under lying bone condition known as STRETCH LACERATION.       | The models should be of fiber glass. | 01 |
| 18 | Model of inferior profile of brain showing hematoma at anterior lobe SUBDURAL HAEMOTOMA  | The models should be of fiber glass. | 01 |
| 19 | Human arm showing yellowish white greasy, Wax like appearance – a late change after death, known as ADIPOCERE (SAPONIFICATION).            | The models should be of fiber glass. | 01 |
| 20 | Posterior profile of Human Forearm and hand showing Tattoo Marks.  | The models should be of fiber glass. | 01 |
| 21 | Human face & upper torso showing electric wire tightly clenched in hands condition known as CADAVERIC SPASM OR INSTANTANEOUS RIGOR.        | The models should be of fiber glass. | 01 |
| 22 | Human face & upper torso showing electric wire tightly clenched in hands condition known as CADAVERIC SPASM OR INSTANTANEOUS RIGOR.        | The models should be of fiber glass. | 01 |
| 23 | Human face & upper torso showing electric wire tightly clenched in hands condition known as CADAVERIC SPASM OR INSTANTANEOUS RIGOR.        | The models should be of fiber glass. | 01 |
| 24 | Human face & upper torso showing electric wire tightly clenched in hands condition known as CADAVERIC SPASM OR INSTANTANEOUS RIGOR.        | The models should be of fiber glass. | 01 |
| 25 | Model of back of head and upper torso showing Exit of a perforated wound on right side chest.  | The models should be of fiber glass. | 01 |

|    |   |   |    |
|----|---|---|----|
| 26 | <p>Dura print of different cases</p> <ol style="list-style-type: none"> <li>1)Cut Throat</li> <li>2)Strangulation</li> <li>3)Tied up with chain then burn</li> <li>4)Bruise(Torture)</li> <li>5)Black eye</li> <li>6)Baby inside uterus</li> <li>7)Electric Burn</li> <li>8)Strangulation</li> <li>9)Cut throat/ Mark of ligature around mouth</li> <li>10)F.A exit wound</li> <li>11)Decomposing</li> <li>12)F.A entry (Evidence of blacking on sweater, shirt, Vest</li> <li>13)Hyoid bone</li> <li>14)Road traffic accident</li> <li>15)Postmortem change</li> <li>16)Defense wound</li> <li>17)Strangulation with Shalwar (Evidence of Hey practical)</li> <li>18)Blister formation</li> <li>19)Ant bite</li> <li>20) Self inflicted</li> <li>21)Cut throat</li> <li>22)Decomposing</li> <li>23)Anti mortem burn</li> <li>24)Animal bite (post mortem)</li> <li>25)Bruised arm (Road accident)</li> <li>26)packing tape around mouth, nose and wrist</li> <li>27)Fire arm entry stripling</li> <li>28)F. A exit wound</li> <li>29) Road traffic accident</li> <li>30)Decomposing/Maggots</li> <li>31)Froth</li> <li>32)Manual strangulation</li> <li>33)Throttling with nail mark</li> <li>34)Bruised liver</li> <li>35)P.M staining</li> <li>36)Criminal abortion (Investing coming out of vagina ligated with a piece of cloth)</li> <li>37)Bomb blast</li> <li>38)Acid burn</li> <li>41)Electric burn 79</li> <li>42)Heroin capsules</li> <li>43)Abdominal viscera</li> <li>44)Crush injury (road accident)</li> <li>45)Exit wound</li> <li>46)Exit(Electric)</li> <li>47)Human bite</li> <li>48)Gunshot (Entry)</li> <li>49)F.A injury (Starlet shape)</li> <li>50)Ligature mark and froth around neck</li> </ol> | 20 items to be displayed in a single cupboard | 50 |
|----|---|---|----|

| LOT#07: WATER DISTILLATION UNIT |                         |   |     |                  |
|---------------------------------|-------------------------|---|-----|------------------|
| Sr No                           | ITEM                    | Specs   | Qty | County of origin |
| 1                               | Water Distillation Unit | <p>Modern, all-in-one, automatically controlled single distillation water distiller made of stainless steel. Designed for producing high quality distillate without full-time personnel control. <b>CE-certified.</b></p> <p><b>Features:</b></p> <ul style="list-style-type: none"> <li>- Modern all-in-one design</li> <li>- Low cost, comparing to competitors and distiller + separate automatic tank systems.</li> <li>- High-quality distillate - conductivity approx. 2,5 µS/cm (depends on incoming water)</li> <li>- Electronic control system (automatic water and power cut-off when tank is full and automatic start, after distillate is taken from tank)</li> <li>- Electronic leakage-proof safety system with solenoid valve</li> <li>- Thermostatic low-water cut-off safety system</li> <li>- Heaters made of stainless steel with extended resource</li> <li>- Fully made of stainless steel</li> <li>- Easily accessed evaporator, condenser-tank for effortless maintenance (cleaning, etc.)</li> <li>- Easily replicable condenser</li> <li>- Easily accessible control unit with possibility to be replaced without disassembling the distiller itself</li> <li>- All parts and tools for installation included</li> <li>- Capacity 25 l/h</li> <li>- Storage tank capacity 50 l</li> <li>- Water consumption 220 l/h</li> <li>- Distillate conductivity 2,5 µS/cm</li> <li>- Overall dimensions 83x65x72 cm</li> <li>- Weight 70 kg</li> <li>- Overall dimensions of the package 96x75x93 cm</li> <li>- Package weight 81 kg</li> <li>- Power supply 380 V / 50-60 Hz, 18 kW three-phase</li> </ul> | 06  | any              |

| LOT#08: MICROSCOPY |                       |  |     |                                   |
|--------------------|-----------------------|--|-----|-----------------------------------|
| S.NO               | ITEMS                 | Specs  | Qty | County of origin                  |
| 1                  | Binocular Microscopes | <p><b>EYEPIECE (S) : High wide field HWF 10x/20 mm secured eyepiece(s) with 20 mm field of view.</b></p> <p>HEAD: Available with a monocular head (45° inclined Ø 23.2 mm tube) or with a Siedentop type head, 360° rotatable, with 30° inclined Ø 23.2 mm tubes</p> <p>Binocular models are equipped with a diopter ± 5 adjustment on left eyepiece</p> | 78  | EU/UK/<br>North America/<br>Japan |

|   |                                 |  |   |                                   |
|---|---------------------------------|--|---|-----------------------------------|
|   |                                 | <p><b>The interpapillary distance is adjustable between 48 to 76 mm</b></p> <p>CONDENSER FOR BRIGHTFIELD: The standard in height adjustable Abbe N.A. 1.25 condenser for bright field comes with an iris diaphragm and swing-out filter holder</p> <p>Reversed quadruple revolving nosepiece on ball-bearings</p> <p><b>Objective: E-plan EPL 4x, 10x, S40x, S100x oil immersion objectives</b></p> <p>All optics are <b>anti-fungus treated and anti-reflection</b> coated for maximum light throughout</p> <p><b>Coaxial coarse and fine adjustments with 180 graduations. Precision 1.1 µm, 0.2 mm per rotation.</b></p> <p>Total travel approximately 19 mm. Friction adjustment</p> <p><b>Mechanical Stage: Plain 131 x 152/197 mm reckless stage with 75 x 36 mm mechanical reckless stage</b></p> <p>Height adjustable Abbe condenser N.A. 1.25 with iris diaphragm and filter holder</p> <p><b>3 W NeoLED™ illumination.</b> Internal power supply 100-240 V (CE)</p> <p>Supplied with power cord, dust cover, 5 ml immersion oil in Styrofoam.</p> <p>Weight Approx. 6.5 Kg</p> |   |                                   |
| 2 | Microscope (5 Piece) multi-head | <ul style="list-style-type: none"> <li>• EWF 10x/20 mm eyepieces</li> <li>• Trinocular version with 4 extra binocular heads. Siedentopf 30° inclined tubes.</li> <li>• Interpupillary distance 48-75 mm with diopter adjustment on left tube</li> <li>• Multihead attachment with joystick to move a green or red pointer across the entire field of view</li> <li>• Revolving quintuple reversed nosepiece on ball bearings</li> <li>• Plan PLi 4x/0.10, 10x/0.25, S40x/0.65, S100x/1.25 oil immersion IOS objectives</li> <li>• All optics are anti-fungus treated and anti-reflection coated for maximum light throughput</li> <li>• 187/230 x 140 mm reckless stage equipped with integrated 79 x 52 mm mechanical stage</li> <li>• Height adjustable Abbe condenser N.A. 1.25 with iris diaphragm and filter holder</li> <li>• Coaxial coarse and fine adjustments with 200 graduations</li> </ul>  | 1 | EU/UK/<br>North America/<br>Japan |

- Precision 1  $\mu\text{m}$ , 0.2 mm per rotation. Total travel approximately 24 mm
- Rack-stop for protection of slides and objectives. Friction adjustment
- Diascopic intensity adjustable 3 W NeoLED™ Köhler illumination with Internal 100-240 V power supply (CE)
- iCare Sensor: The illumination of the microscope automatically switches off when the
- microscopist steps away from his position, saving energy
- CSS - Cable Storage System. The Cable Storage System of the iScope allows the user to
- easily insert the power cable into the back of the instrument
- Paint with Antibacterial Protection Layer
- Supplied with power cord, 500 mA 250 V spare fuse, 5 ml immersion oil and dust cover in
- styrofoam case

#### **5 MP Camera**

- 5.1 MP digital USB-3 camera with 1/2.5 inch CMOS sensor
- Scan mode Progressive, rolling shutter , Pixel size 2.2  $\mu\text{m}$  x 2.2  $\mu\text{m}$
- Filter RGB , Mount C-mount
- Max fps Up to 16 frames per second (2592 x 1944 pixels)
- Up to 50 frames per second (1296 x 972 pixels)
- Up to 98frames per second (640x 486 pixels)
- Greyscale conversion 12 bits, color rendering 24 bits
- Sensitivity 1.76 V/lux-sec @ 550 nm
- Exposure Automatic or manual. Exposure time 0,1-2000 ms
- White balance Automatic / Manual
- Dynamic range 73 db. Signal to Noise max 40 dB

|   |                                    |  |   |   |
|---|------------------------------------|--|---|---|
|   |                                    | <ul style="list-style-type: none"> <li>• Data interface USB 3.0</li> <li>• Operation 0 – 60° C, 45-85 % humidity. Storage temperature -20 to 70° Celsius</li> <li>• Supplied with 0.5x objective with C-mount, USB 3.0 cable, 30 and 30.5 mm adapters for</li> <li>• stereo microscopes, 76 x 24 mm calibration slide (1mm/100), Image Focus Alpha software,</li> <li>• Software Windows 7/8/10/11 (32 and 64 bit configurations) and Mac</li> <li>• Compatible with Intel Core 2, 2.8 GHz or higher, 2 GB, USB-3 port</li> <li>• Compatible with PC/Mac software to be included</li> </ul>  |   |   |
| 3 | <b>Slide Projecting Microscope</b> | <p><b>Trinocular Microscope</b><br/> HWF 10x/20 mm eyepieces<br/> Trinocular head, Siedentop type, 30° inclined tubes.<br/> Interpapillary distance 48-76 mm<br/> Reversed quadruple revolving nosepiece on ball-bearings<br/> E-plan EPL 4x, 10x, S40x, S100x oil immersion objectives<br/> All optics are anti-fungus treated and anti-reflection coated for maximum light throughput<br/> Coaxial coarse and fine adjustments with 180 graduations. Precision 1.1 µm, 0.2 mm per rotation.<br/> Total travel approximately 19 mm. Friction adjustment<br/> Plain 131 x 152/197 mm mechanical stage with 75 x 36 mm mechanical stage<br/> Height adjustable Abbe condenser N.A. 1.25 with iris diaphragm and filter holder<br/> 3 W NeoLED™ illumination. Internal power supply 100-240 V (CE)</p> <p><b>5 MP Camera</b><br/> 5.1 MP digital USB-3 camera with 1/2.5 inch CMOS sensor<br/> Scan mode Progressive, rolling shutter , Pixel size 2.2 µm x 2.2 µm<br/> Filter RGB , Mount C-mount<br/> Max fps Up to 16 frames per second (2592 x 1944 pixels)<br/> Up to 50 frames per second (1296 x 972 pixels)<br/> Up to 98frames per second (640x 486 pixels)<br/> Greyscale conversion 12 bits, color rendering 24 bits<br/> Sensitivity 1.76 V/lux-sec @ 550 nm<br/> Exposure Automatic or manual. Exposure time 0,1-2000 ms<br/> White balance Automatic / Manual<br/> Dynamic range 73 db. Signal to Noise max 40 dB<br/> Data interface USB 3.0<br/> Operation 0 – 60° C, 45-85 % humidity. Storage temperature -20 to 70° Celsius</p> | 1 | EU/UK/<br>North America/<br>Japan/<br>Korea |



|  |  |  |  |
|--|--|--|--|
|  | <p>Supplied with 0.5x objective with C-mount, USB 3.0 cable, 30 and 30.5 mm adapters for stereo microscopes, 76 x 24 mm calibration slide (1mm/100), Image Focus Alpha software, Software Windows 7/8/10/11 (32 and 64 bit configurations) and Mac</p> <p>Compatible with Intel Core 2, 2.8 GHz or higher, 2 GB, USB-3 port Required with Compatible PC and software</p> |  |  |
|--|--|--|--|

| Lot#09 SKILL DEVELOPMENT LABORATORY |  |     |                         |
|-------------------------------------|--|-----|-------------------------|
| S.No                                | Item and Specification   | QTY | County of Origin        |
| 1                                   | <p><b>Adult QCPR Manikin for BLS</b><br/>           Adult sized CPR Torso Manikin Providing feedback based on just watching students perform can be challenging for instructors. QCPR measurement and feedback technology that takes the guesswork out of instruction– all from the palm of your hand. Manikin works with an Instructor app that allows you to monitor and coach up to six students at once, and a Learner app that lets students monitor their own performance on their feedback device.</p> <ul style="list-style-type: none"> <li>• <b>Airway Feature</b></li> <li>• Realistic chest rise and fall</li> <li>• Jaw thrust maneuver (movable jaw)</li> <li>• Airway closes when neck is under-extended</li> <li>• Nasal passages open for nose pinch</li> </ul> <p><b>CPR</b></p> <ul style="list-style-type: none"> <li>• Correct Anatomical Landmarks</li> <li>• Compression feedback from clicker device</li> <li>• Compression measurement feedback on any iOS / Android device</li> <li>• Ventilation measurement feedback on any iOS / Android device</li> <li>• Mouth-to-Mouth ventilations</li> <li>• Chest compression</li> <li>• Head tilt/Chin lift maneuver</li> <li>• Ventilations with visible chest rise</li> <li>• Bag Valve Mask ventilations</li> </ul> <ul style="list-style-type: none"> <li>• <b>Simulation Administration</b></li> <li>• Software application connectivity for feedback through any iOS / Android device</li> </ul> | 1   | EU/UK/<br>Japan/<br>USA |

|   |  |   |                         |
|---|--|---|-------------------------|
|   | <ul style="list-style-type: none"> <li>• Real-time feedback on compressions and ventilations</li> <li>• A performance summary with an overall score and improvement suggestion</li> </ul> <p>Details on compression release, depth and rate, ventilation volume, and number of compressions/ventilations/cycles</p>  |   |                         |
| 2 | <p><b>Bag Valve Mask (Adult-Child-Infant)</b></p> <p><b>Quality CPR device</b></p> <ul style="list-style-type: none"> <li>• The design, filter and one-way valve make it a quality choice that provides protection during CPR.</li> <li>• By creating a slight distance between the patient and care provider the Pocket Mask also makes seeing patient lip color and chest movement easier.</li> </ul> <p>A high-quality Technostat filter under a one-way valve filters out contaminants in the air being transferred between the care provider and the patient, protecting them both.</p>   | 1 | EU/UK/<br>Japan/<br>USA |
| 3 | <p><b>IV Arm</b></p> <p><b>Technical Specifications:</b></p> <p>The I.V. Injection Arm made of silicone, is unique in quality and design and allows realistic training to teach competence to medical staff. It is also very suitable for group instruction because of its high quality, stain resistance and easy-to-clean soft material.</p> <p><b>Procedures:</b></p> <ul style="list-style-type: none"> <li>• Correct puncture of peripheral veins for blood sampling. The following veins can be punctured:<br/>basilica vein, cephalic vein, median cubital vein, dorsal venous rete of hand</li> <li>• Intravenous injections</li> <li>• Positioning of a butterfly catheter</li> </ul> <p><b>Delivery content:</b></p> <ul style="list-style-type: none"> <li>• 1 injection arm with already mounted tubing system</li> <li>• 1 infusion bottle</li> <li>• 1 stand</li> <li>• 1 bottle of artificial blood concentrate (250ml)</li> <li>• 1 plastic cup</li> <li>• 1 disposable syringe and 2 injection cannulas (recommended cannula size: 20 and 21 gauge)</li> <li>• 2 tubing systems as replacement parts</li> </ul> <p>1 container of talcum powder</p> | 1 | EU/UK/<br>Japan/<br>USA |
| 4 | <p><b>IM Injection Simulator</b></p> <p><b>Technical Specifications:</b></p> <p>I.M. simulator represents a right upper arm with all important anatomical palpable landmarks such as acromion</p>  | 1 | EU/UK/<br>Japan/<br>USA |

|                 |  |                 |   |
|-----------------|--|-----------------|---|
| <p><b>5</b></p> | <p><b>Suturing &amp; Stapling Practice</b></p> <p><b>Technical Specifications:</b><br/>Episiotomy Suturing Simulators provide a realistic way for students to learn good surgical techniques. The simulators provide students with a variety of repair experiences without the constraint of time and concern for safety, which are factors with a live patient. The simulators can be used by the student in a learning lab with an instructor, or by the student individually in the clinical setting just prior to a patient experience. They are also useful as homework teaching aids that can be signed out at night and returned the next day. In addition to being portable, the lifelike texture allows the learner to develop a “feel” for instrument handling, tension on suture, and the advantages of one method of tying knots over another.</p> <p>Includes one of each simulator:</p> <ul style="list-style-type: none"> <li>• Midline Suture Simulator</li> <li>• Left Mediolateral Suture Simulator</li> <li>• Right Mediolateral Suture Simulator</li> </ul> <p>Each simulator comes with an instruction booklet and is individually boxed.</p> | <p><b>3</b></p> | <p><b>EU/UK/<br/>Japan/<br/>USA</b></p> |
| <p><b>6</b></p> | <p><b>Tracheotomy</b></p> <p><b>Technical Specifications:</b><br/>Tracheostomy Care Simulator is the most realistic approximation of a patient available today. Careful attention to detail is incorporated into this pseudo-patient. The simulator replicates an adult male containing oral and nasal passages and all appropriate anatomy - pharynx, epiglottis, trachea, esophagus, stoma, cricoid cartilage, and representative cervical vertebrae. The chest area contains left and right bronchi and the bronchial tree. The esophagus “dead ends” 2" below the trachea opening. The side of the neck and chest area over the bronchial tree allow viewing of the suction and trachea tube.</p> <p><b>Skills Includes:</b></p> <ul style="list-style-type: none"> <li>• Suctioning techniques</li> <li>• proper cuff inflation</li> <li>• dressing changes</li> </ul> <p>Oral, nasopharyngeal, nasotracheal, and tracheal suctioning can be practiced</p>  | <p><b>1</b></p> | <p><b>EU/UK/<br/>Japan/<br/>USA</b></p> |
| <p><b>7</b></p> | <p><b>Catheterisation Male</b></p> <p><b>Technical Specifications:</b><br/>The catheterization trainer set can be used to realistically demonstrate, practice and evaluate female and male bladder catheterizations either via the urethra (transurethral) or the abdominal wall (suprapubic).</p>   | <p><b>1</b></p> | <p><b>EU/UK/<br/>Japan/<br/>USA</b></p> |

|  |  |  |  |
|--|--|--|--|
|  | <p>The easy-to-change genital inserts are placed into the anatomically correct lower abdominal model and held in place with magnets. Both inserts are made from soft, flexible material: Foreskin and labia are movable and the penis can be stretched. This way the student can practice all the necessary gestures for catheterization. The material gives a realistic feeling when inserting and removing the catheter into the bladder with realistic resistance and insertion depths.</p> <p><b><u>Direct learning</u></b></p> <p>When the catheter has been correctly inserted, fluid runs out just like with a real patient. The catheter can also be checked through the transparent bladder. The abdominal wall on the PRO version can be removed for better visualization of the procedure during urethral catheterization.</p> <p><b><u>Various levels of difficulty</u></b></p> <p>On the male insert, three different levels of narrowing of urethra can be set. In the narrowest setting, catheterization is not possible, leading to the conclusion that a suprapubic catheter is needed.</p> <p><b>Change and supply of a suprapubic urinary catheter</b></p> <p>If catheterization through the urethra is no longer possible, a suprapubic catheter must be inserted. The suprapubic catheter is usually placed by the doctor through the abdominal wall into the filled urinary bladder and fixed to the abdominal wall. The PRO version can be used to practice changing the suprapubic catheter and its care. Care includes changing dressings, cleaning the catheter and disinfecting the wound.</p> <p><b>Features:</b></p> <ul style="list-style-type: none"> <li>• Female and male catheterization with realistic resistance</li> <li>• 3 levels of adjustable narrowing of urethra</li> <li>• Soft and movable foreskin and labia (for practicing disinfection, for example)</li> <li>• Anatomically realistic pelvic structure</li> <li>• Liquid outflow if catheterization is successfully carried out</li> <li>• The transparent bladder can be checked, and the abdominal wall can be removed</li> <li>• Training of suprapubic catheter changes as well as their cleaning and care</li> <li>• Stands securely on the table thanks to the non-slip feet</li> <li>• Magnetic connectors for quick set-up and dismantling</li> <li>• Easy to clean and maintain, and can be completely taken apart</li> <li>• A sponge on the inside prevents a build-up of moisture</li> </ul> |  |  |
|--|--|--|--|

|  |  |  |  |
|--|--|--|--|
|  | <b>Delivery contents:</b> <ul style="list-style-type: none"> <li>• Realistic lower abdominal model</li> <li>• Male and female catheterization set with transparent bladder</li> <li>• Bottle and tube connectors</li> </ul> Carry case |  |  |
|--|--|--|--|

| LOT#10 PHARMACY LAB |  |   |          |
|---------------------|--|---|----------|
| S.No                | Item Description                         | Specifications  | Quantity |
| 1                   | Corian Sheets with water and gas fitting | Complete water and gas fitting with all allied accessories<br>8X4 | 20       |
|                     |  |   |          |

**Note:**

1. PAF-IAST may re-adjust the quantities within the total quantities specified against the specifications of same genre in any of the Lots.
2. The Bidder shall indicate in their offer,
  - a. detailed specifications of their offered product(s),
  - b. standard accessories,
  - c. make and origin, as part of confirming Compliance as per the format given in Form – D.
3. The Unit Price, Total Bid Price, and Additional Warranty Price of the quoted items shall be indicated as per the given format in Form – G.

## Section 5b: Special Terms and Conditions

### Standard

- The goods supplied must be capable of functioning properly under the climatic conditions of Haripur.
- There shall be no deviation from specification and country of make as provided with each item. In case of any ambiguity in specification/ accessories needed for the full functioning of the equipment, the firm must clear it with the Procurement Committee. However, the decision of the Procurement Committee will be final.
- The goods with standard accessories supplied under this tender shall conform to the standard maintenance in the technical specification.

### Training

- The firm supplying the item/ equipment(s) will demonstrate the operation/ working of the supplied goods to the satisfaction of PAF- IAST and provide training. Suppliers are advised to provide details on formal training for the LOT(s) covering aspects as mentioned below, but not limited to, as required in Form – E (Section 3).

| LOT(s)   |   |   |   |
|----------|---|---|---|
| Level    |   |   | 5   |
| Basic    | Demonstrate the operations/ working to end users; Identify the do's and don'ts; and aspects deem necessary for long-life functioning of supplied goods. |   |   |
| Hands-on |   | Demonstrate technical features; Elaborate technical configuration(s) performed for integration with the overall setup; Documented guidelines for generating reports using software and/ or systems' interface |   |
| Advanced |   |   | Provide trainings to Operators for troubleshooting and smooth operations using system manuals |

### Calibration of item/ equipment

- The supplier will install the good(s) in the presence and satisfaction of the Procurement Committee, if need be. In case of any defect in the supplied good(s) or if it is not in accordance with the desired specification(s), the goods will be changed at the cost of the supplier.

### Warranty/ Guarantee

- The Supplier will give comprehensive onsite warranty/ guarantee that the goods/ stores/ articles would continue to conform to the description and quality as specified for a period of at least One (01) year from the date of delivery, installation and commissioning of the said goods/ stores/ articles to be purchased and that notwithstanding the fact that the purchaser may have inspected and/ or approved the said goods/ stores/ article, if during the aforesaid period, the said goods/ stores/ articles, be discovered not to conform to the description and quality aforesaid or have determined (and the decision of the Procurement Committee in that context will be final and conclusive), the PAF – IAST will be entitled to reject the said goods/ stores/ articles or such portion thereof as may be discovered not to conform to the said description and quality, on such rejection the goods/ articles/ stores will be at the supplier's risk and all the provisions relating to rejection of goods etc. shall apply.
- The Supplier shall, if so called upon to do, replace the goods etc., or such portion thereof as is rejected by Procurement Committee, otherwise the supplier shall pay such damage as may arise by the reason of the breach of the condition herein contained. Nothing herein contained shall prejudice any other right of the Procurement Committee in that behalf under the contract or otherwise.

- The Supplier shall also replace equipment, in case it is found defective which cannot be put to operation due to manufacturing defect, etc. In case of equipment specified by the Procurement Committee, the supplier shall be responsible from carrying out annual maintenance and repairs on the terms and conditions as may be agreed. The supplier shall also be responsible to ensure adequate regular supply of spare parts needed for a specific type of equipment whether under their annual maintenance and repairs contract or otherwise. In case of change of model, supplier will give sufficient notice to the Procurement Committee who may like to purchase spare parts from them to maintain the equipment in perfect condition.

## Section 6: Returnable Bidding Forms / Checklist

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This section serves as a checklist for preparation of your Bid. Please complete the Returnable Bidding Forms in accordance with the instructions in the forms and return them as part of your Bid submission. No alteration to format of forms shall be permitted and no substitution shall be accepted.

Before submitting your Bid, please ensure compliance with the Bid Submission instructions of the BDS 22.

### **Bid Proposal:**

|  |                          |
|--|--------------------------|
| <b>Have you duly completed all the Returnable Bidding Forms?</b>   |                          |
| <input type="checkbox"/> Form A: Bid Submission Form   | <input type="checkbox"/> |
| <input type="checkbox"/> Form B: Joint Venture/Consortium/ Association Information Form                            | <input type="checkbox"/> |
| <input type="checkbox"/> Form C: Bidder Information Form   | <input type="checkbox"/> |
| <input type="checkbox"/> Form D: Qualification Form  | <input type="checkbox"/> |
| <input type="checkbox"/> Form E: Bid Proposal Form   | <input type="checkbox"/> |
| <input type="checkbox"/> Form F: Specifications Compliance Form  | <input type="checkbox"/> |
| <input type="checkbox"/> Form G: Price Schedule Form   | <input type="checkbox"/> |
| <b>Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?</b> | <input type="checkbox"/> |



## Form A: Bid Submission Form

(To be Submitted in an envelope duly sealed and marked as Technical Proposal)

|                 |                         |       |             |
|-----------------|-------------------------|-------|-------------|
| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
| ITB reference:  | PAFIAS/MD/01/2025       |       |             |

We, the undersigned, submit our Bid for the award of contract to supply the goods and related services required for [Insert Title of goods and services] in accordance with your Invitation to Bid No. [Insert ITB Reference Number]. We hereby submit our Bid, which includes this Bid proposal.

We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/ Consortium/ Association members or subcontractors or suppliers for any part of the contract:

- a) is not under procurement prohibition by any of the Government/ Semi-government/ Autonomous organization;
- b) have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any Organization in Pakistan;
- c) have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against us that could impair our operations in the foreseeable future;
- d) undertake not to engage in proscribed practices, including but not limited to corruption, fraud, coercion, collusion, obstruction, or any other unethical practice, with the PAF: IAST, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the PAF: IAST.

We declare that all the information and statements made in this Bid are true and we accept that any misinterpretation or misrepresentation contained in this Bid may lead to our disqualification and/ or sanctioning by the PAF-IAST.

We offer to supply the goods and related services in conformity with the Bidding documents, including the PAF-IAST General Conditions of Contract and in accordance with the Schedule of Requirements and Specifications.

Our Bid shall be valid and remain binding upon us for the period specified in the Bid Data Sheet.

We understand and recognize that you are not bound to accept any Bid you receive.

I, the undersigned, certify that I am duly authorized by [Insert Name of Bidder] to sign this Bid and bind it should PAF- IAST accept this Bid.

Name: \_\_\_\_\_

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

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

Signature: \_\_\_\_\_

*[Stamp with official stamp of the Bidder]*

## Form B: Joint Venture/ Consortium/ Association Information Form

(To be Submitted in an envelope duly sealed and marked as Technical Proposal)

|                 |                         |       |             |
|-----------------|-------------------------|-------|-------------|
| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
| ITB reference:  |                         |       |             |

To be completed and returned with your Bid if the Bid is submitted as a Joint Venture/Consortium/Association.

| No | Name of Partner and contact information <i>(address, telephone numbers, fax numbers, e-mail address)</i> | Proposed proportion of responsibilities (in %) and type of goods and/or services to be performed |
|----|--|--|
| 1  | [Complete]   | [Complete]   |
| 2  | [Complete]   | [Complete]   |
| 3  | [Complete]   | [Complete]   |

|  |            |
|--|------------|
| <b>Name of leading partner</b><br>(with authority to bind the JV, Consortium, Association during the ITB process and, in the event a Contract is awarded, during contract execution) | [Complete] |
|--|------------|

We have attached a copy of the below referenced document signed by every partner, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture:

Letter of intent to form a joint venture      **OR**     JV/Consortium/Association agreement

We hereby confirm that if the contract is awarded, all parties of the Joint Venture/Consortium/Association shall be jointly and severally liable to PAF: IAST for the fulfillment of the provisions of the Contract.

Name of partner: \_\_\_\_\_

Name of partner: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

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

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

Name of partner: \_\_\_\_\_

Name of partner: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

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

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

## Form C: Bidder Information Form

(To be Submitted in an envelope duly sealed and marked as Technical Proposal)

|   |  |
|---|--|
| <b>Legal name of Bidder</b>   | [Complete]   |
| <b>Legal address &amp; Branch Offices</b>   | [Complete]   |
| <b>Year of registration</b>   | [Complete]   |
| <b>Bidder's Authorized Representative Information</b>   | Name and Title: [Complete]<br>Telephone numbers: [Complete]<br>Email: [Complete]                     |
| <b>Are you a PAF – IAST registered vendor?</b>  | <input type="checkbox"/> Yes <input type="checkbox"/> No    If yes, [insert PAF- IAST vendor number] |
| <b>Countries of operation</b>   | [Complete]   |
| <b>No. of full-time employees</b>   | [Complete]   |
| <b>No. of Technical Staff</b>   | [Complete]   |
| <b>Quality Assurance Certification (e.g. ISO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):</b>   | [Complete]   |
| <b>Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? (If yes, provide a Copy of the valid Certificate):</b>   | [Complete]   |
| <b>Does your Company have a written Statement of its Environmental Policy? (If yes, provide a Copy)</b>   | [Complete]   |
| <b>Does your organization demonstrates significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies, education, vocational trainings, social responsibility towards people with Special needs, or membership of trade institutions promoting such issues</b> | [Complete]   |
| <b>Contact person that PAF: IAST may contact for requests for clarifications during Bid evaluation (Only Lead Bidder)</b>   | Name and Title: [Complete]<br>Telephone numbers: [Complete]<br>Email: [Complete]                     |

**Please attach the following documents:**

1. Company Profile, which should not exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the goods and/ or services being procured.
2. Proposed timetable for delivery, installation and commissioning plan for the required and quoted items to PAF – IAST after the award of Contract.
3. Certificate of Registration of the business.
4. Principal's Authorization Letter in favor of Bidder to participate in this Tender.
5. A proofing document confirms the offered warranty for at least One (01) year, supported by the manufacturer's certificates, if applicable.
6. A proofing document confirming supply of same or similar items of this magnitude to various clients/ customers in Pakistan.
7. Proven records of no less than the required Projects of similar nature/ value/ complexity in which delivery and services were extended.
8. Full detailed description of the specifications of the proposed items in addition to catalogues clearly showing the proposed specifications responding to the requirements.
9. Supporting photos of the proposed items.
10. Quality certifications: ISO 9001:2015 (if applicable)
11. Latest Audited Financial Statements (Income Statement and Balance Sheet) including Auditor's Report for the past (3 years).

**Note: To be filled in by each partner in case Bid is submitted as a JV/ Consortium/ Association**

## Form D: Qualification Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

|                 |                         |       |             |
|-----------------|-------------------------|-------|-------------|
| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
| ITB reference:  | PAFIAS/MDC/01/2025      |       |             |

If JV/ Consortium/ Association, to be completed by each partner.

### Previous Relevant Experience

Please list all Projects successfully completed in the last 3 years, covering following aspects;

- Scope of the projects/ assignments.
- Activities performed for the successful completion of the project.
- Support Services Contracts in hand with SLA for the supplied goods.

List only those assignments for which the Bidder was legally contracted or sub-contracted by the Client as a company or was one of the Consortium/ JV partners. Assignments completed by the Bidder's individual experts working privately or through other firms cannot be claimed as the relevant experience of the Bidder, or that of the Bidder's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Bidder should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by PAF- IAST.

| Project name & Country of Assignment | Client & Reference Contact Details | Contract Value | Period of activity and status | Types of activities undertaken |
|--------------------------------------|------------------------------------|----------------|-------------------------------|--------------------------------|
|                                      |                                    |                |                               |                                |
|                                      |                                    |                |                               |                                |
|                                      |                                    |                |                               |                                |

Bidders may also attach their own Project Data Sheets with more details for assignments above.

### History of Non-Performing Contracts

| <input type="checkbox"/> Non-performing contracts did not occur during the last 3 years |                                    |   |   |
|---|------------------------------------|---|---|
| <input type="checkbox"/> Contract(s) not performed in the last 3 years                  |                                    |   |   |
| Year  | Non- performed portion of contract | Contract Identification   | Total Contract Amount (current value in US\$) |
|   |                                    | Name of Client:<br>Address of Client:<br>Reason(s) for non-performance: |   |

### Financial Standing

| Annual Turnover for the last 3 years | Year | PKR |
|--------------------------------------|------|-----|
|                                      | Year | PKR |
|                                      | Year | PKR |

**Latest Credit Rating (if any), indicate the source**

|  |
|--|
|  |
|--|

| Financial information<br>(in PKR equivalent) | Historic information for the last 3 years |        |        |
|--|---|--------|--------|
|  | Year 1                                    | Year 2 | Year 3 |
|  | <i>Information from Balance Sheet</i>     |        |        |
| Total Assets (TA)                            |   |        |        |
| Total Liabilities (TL)                       |   |        |        |
| Current Assets (CA)                          |   |        |        |
| Current Liabilities (CL)                     |   |        |        |
|  | <i>Information from Income Statement</i>  |        |        |
| Total / Gross Revenue (TR)                   |   |        |        |
| Profits Before Taxes (PBT)                   |   |        |        |
| Net Profit                                   |   |        |        |
| Current Ratio                                |   |        |        |

Attached are copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following condition:

- a) Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies;
- b) Historic financial statements must be audited by a certified public accountant;
- c) Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted.

## Form E: Technical Proposal Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

|                 |                         |       |             |
|-----------------|-------------------------|-------|-------------|
| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
| ITB reference:  | PAFIAS/MDC/01/2025      |       |             |

The Bidder's Bid should be organized to follow this format of the Technical Bid Proposal. Where the bidder is presented with a requirement or asked to use a specific approach, the bidder must not only state its acceptance, but also describe how it intends to comply with the requirements. Where a descriptive response is requested, failure to provide the same may be viewed as non-responsive.

### SECTION 1: Qualification, capacity and expertise

- 1.1 Bidder's general organizational capability: management structure, financial stability and project financing capacity, project management controls, extent of work to be subcontracted (if so, provide details).
- 1.2 Bidder's relevance of specialized knowledge and experience on similar engagements done in the region/ country. Bidder should submit a detailed description of the projects executed (quantities, value, beneficiary)
- 1.3 Manufacturer's strengths covering the regional/ global market presence, hi-tech products portfolio, manufacturing capacity, R&D activities resulting in national and international patents, quality control and assurance practices, and international certifications in relevant areas.

### SECTION 2: Management Structure and Key Personnel

- 2.1 Describe the overall management approach toward planning and implementing the project. Include an organization chart for the management of project describing relationship of key positions and designations.
- 2.2 Provide CVs for key personnel that will be provided to support the implementation of this project using the format below. CVs should demonstrate qualifications in areas relevant to scope of goods and/or services.

#### Format for CV of Proposed Key Personnel

|                                      |  |
|--------------------------------------|--|
| <b>Name of Personnel</b>             | [Insert]   |
| <b>Position</b>                      | [Insert]   |
| <b>Nationality</b>                   | [Insert]   |
| <b>Language proficiency</b>          | [Insert]   |
| <b>Education/Qualifications</b>      | <i>[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]</i><br>[Insert]   |
| <b>Professional certifications</b>   | <i>[Provide details of professional certifications relevant to the scope of goods and/or services]</i><br><input type="checkbox"/> Name of institution: [Insert]<br><input type="checkbox"/> Date of certification: [Insert] |
| <b>Employment Record/ Experience</b> | <i>[List all positions held by personnel (starting with present position, list in reverse order), giving dates, names of employing organization, title of position and location of employment.]</i><br>[Insert]              |

I, the undersigned, certify that to the best of my knowledge and belief, the data provided above correctly describes my qualifications, my experiences, and other relevant information about myself.

**SECTION 3: Scope of Supply, Technical Specifications and Training(s)**

This section should demonstrate the Bidder's responsiveness to the specification by identifying the specific components proposed, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed bid meets or exceeds the requirements/specifications. All important aspects should be addressed in sufficient detail.

- 3.1 A detailed description of how the Bidder will deliver the required goods and services, keeping in mind the appropriateness to local conditions and project environment. Details how the different service elements shall be organized, controlled and delivered.
- 3.2 Explain whether any work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.
- 3.3 Implementation plan including a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.
- 3.4 Details on post-deployment trainings on-site hands-on training for LOT # 2

**SECTION 4: Registration & Certifications**

This section should demonstrate the Bidder's responsiveness towards its registration with the relevant national body and international organizations Certifying the bidder's qualifications with respect to Quality and Project Management.

- 4.1 Provide a copy of valid registration with the Pakistan Engineering Council (if applicable).
- 4.2 Provide a copy of valid Certificate issued by International Organization for Standardization certifying the bidder's compliance and practices towards quality management principles and standards in their offered products/ solutions and services.
- 4.3 Provide a copy of valid Certificate issued by International Organization for Standardization certifying the bidder's compliance and practices towards information security management principles and standards in their offered products/ solutions and services.

**SECTION 5: Warranty and Support Services**

This section should demonstrate the Bidder's responsiveness to the post-commissioning warranty and support services of the goods supplied, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed bid meets or exceeds the requirements. All important aspects should be addressed in sufficient detail.

- 5.1 A detailed description of how the Bidder will provide the Warranty claims to the users, keeping in mind the span and complexity of the project in context of local conditions and project environment.
- 5.2 Explain whether any services or work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.
- 5.3 Details how the post-delivery/ deployment Support Services will be provided to the users keeping in consideration the criticality of IT systems, and dependency of university administration and operations on such systems.



## Form F: Specifications Compliance Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

|                 |                         |       |             |
|-----------------|-------------------------|-------|-------------|
| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
| ITB reference:  | PAFIAS/MDC/01/2025      |       |             |

The Bidder's Bid should be organized to follow this format of the Technical Bid Proposal. Where the bidder is presented with a requirement or asked to use a specific approach, the bidder must not only state its acceptance, but also describe how it intends to comply with the requirements. Where a descriptive response is requested, failure to provide the same may be viewed as non-responsive.

| Goods and services to be Supplied<br><i>(based on the <b>Technical Specifications</b> provided in Section 5a &amp; Section 5b)</i> |                  | Your response<br>Compliance with specifications               |  |
|--|------------------|---|--|
|  |                  | Comply<br>(Yes/ No)<br><i>(If No, indicate discrepancies)</i> | Quoted Specifications  |
| Required Items   |                  | Offered Items   |  |
| <b>LOT #1:</b>   |                  |   |  |
|  | Specification #1 |   | <b>(Bidders are required to attach Compliance Comparison Sheet supported by Product Data Sheet against the Specifications provided in Section – 5)</b> |
|  | Specification #2 |   |  |
|  | Specification #3 |   |  |
|  | Specification #4 |   |  |
|  | Specification #5 |   |  |
| <b>LOT #2:</b>   |                  |   |  |
|  | Specification #1 |   | <b>(Bidders are required to attach Compliance Comparison Sheet supported by Product Data Sheet against the Specifications provided in Section – 5)</b> |
|  | Specification #2 |   |  |
|  | Specification #3 |   |  |
|  | Specification #4 |   |  |
| <b>LOT #4:</b>   |                  |   |  |
|  | Specification #1 |   | -do-   |
| <b>LOT #5:</b>   |                  |   |  |
|  | Specification #1 |   | -do-   |
| <b>LOT #6:</b>   |                  |   |  |
|  | Specification #1 |   | -do-   |
| <b>LOT #7:</b>   |                  |   |  |
|  | Specification #1 |   | -do-   |
| <b>LOT #8:</b>   |                  |   |  |
|  | Specification #1 |   | -do-   |
| <b>LOT #9:</b>   |                  |   |  |
|  | Specification #1 |   | -do-   |

**LOT #10:**

|  |                  |  |      |  |
|--|------------------|--|------|--|
|  | Specification #1 |  | -do- |  |
|--|------------------|--|------|--|

## Form G: Price Schedule Form

(To be Submitted in a separate and sealed envelope duly marked as Financial Proposal)

|                 |                         |       |             |
|-----------------|-------------------------|-------|-------------|
| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
| ITB reference:  | PAFIAS/MDC/01/2025      |       |             |

[The Bidder is required to prepare the Price Schedule following the below format. The Price Schedule must include a detailed cost breakdown of all goods and related services to be provided.]

We, the <<Name of Bidder>>, hereby submit our Financial Bid for the Supply of Items as below. We assure you of our full compliance to the required specifications, delivery schedule and other terms without any deviation and/ or reservations. We reiterate our acceptance to the terms and conditions of the RFP. Our Financial proposal as below is submitted for your kind consideration;

| Quoted Items in compliance to the Technical Specifications as referred in Section – 5a and Section – 5b |        | Quantity<br>(a) | Unit Price<br>[in Rs.]<br>(b) | GST<br>[in Rs.]<br>(c) | Total Price<br>[in Rs.]<br>$d=a*[b+c]$ |
|---|--------|-----------------|-------------------------------|------------------------|--|
| <b>LOT #1:</b>  |        |                 |                               |                        |  |
| 1   | Items  |                 |                               |                        |  |
| <b>LOT #2:</b>  |        |                 |                               |                        |  |
| 1   | Item 1 |                 |                               |                        |  |
| 2   | Item 2 |                 |                               |                        |  |
| 3   | Item 3 |                 |                               |                        |  |
| <b>LOT #3:</b>  |        |                 |                               |                        |  |
| 1   | Items  |                 |                               |                        |  |
| <b>LOT #4:</b>  |        |                 |                               |                        |  |
| 1   | Items  |                 |                               |                        |  |
| <b>LOT #5:</b>  |        |                 |                               |                        |  |
| 1   | Items  |                 |                               |                        |  |
| <b>LOT #6:</b>  |        |                 |                               |                        |  |
| 1   | Items  |                 |                               |                        |  |
| <b>LOT #7:</b>  |        |                 |                               |                        |  |
| 1   | Items  |                 |                               |                        |  |
| <b>LOT #8:</b>  |        |                 |                               |                        |  |
| 1   | Items  |                 |                               |                        |  |
| <b>LOT #9:</b>  |        |                 |                               |                        |  |
| 1   | Items  |                 |                               |                        |  |
| <b>LOT #10:</b>   |        |                 |                               |                        |  |
| 1   | Items  |                 |                               |                        |  |

**Extended Warranty Price (at discretion of PAF-IAST)**

| Annual Warranty & Support Services beyond Standard Warranty of the Quoted Items |  | 2 <sup>nd</sup> Year<br>(in PKR) | 3 <sup>rd</sup> Year<br>(in PKR) | 4 <sup>th</sup> Year<br>(in PKR) |
|---|--|----------------------------------|----------------------------------|----------------------------------|
| <b>LOT #1:</b>  |  |                                  |                                  |                                  |
| 1   |  |                                  |                                  |                                  |
| <b>LOT #2:</b>  |  |                                  |                                  |                                  |
| 1   |  |                                  |                                  |                                  |

Total Bid Value in Figures (including Extended Warranty Price): \_\_\_\_\_

Total Bid Value in words (including Extended Warranty Price): \_\_\_\_\_

\_\_\_\_\_

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

Signature: \_\_\_\_\_ (Please affix company stamp here)

**Note: Quoted price must be inclusive of all taxes and duties.**

## Annex – I: Integrity Pact

The Bidders will be required to submit the below text on stamp paper after filling in the details and duly signed as well as stamped, as part of their Technical Proposal.

**DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC**  
**PAYABLE BY THE SUPPLIER OF GOODS, SERVICES & WORK IN CONTRACTS WORTH**  
**RS. 10.0 MILLION OR MORE**

(To be filled by the bidder as a part of technical proposal)

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

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

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

\_\_\_\_\_ hereby declare that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoP) through any corrupt business partner.

Without limiting the generality of the forgoing, \_\_\_\_\_ represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or 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 nature 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 consultant fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatever from GoP, except that which has been expressly declared pursuant hereto.

\_\_\_\_\_ 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 GoP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

\_\_\_\_\_ accept full responsibility and strict liability for making any false declaration, not making full discloser, 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 GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard, \_\_\_\_\_ agrees to identify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder's fee or kickback given by \_\_\_\_\_ as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever from GoP.

\_\_\_\_\_  
[Buyer] [Seller / Supplier]

# Annex – II: Draft Contract Sample

Available at PAF: IAST website at <http://www.paf-iastr.edu.pk/downloads>