



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

KHYBER PAKHTUNKHWA

REQUEST FOR PROPOSAL (RFP) FOR “Supply of Research Lab Equipment”

Submission of Bids: Thursday the 05 August, 2021 @ 12:00 noon

Opening of Bids: Thursday the 05 August, 2021 @ 12:30 pm

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Section 1. Letter of Invitation

The Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology (PAF- IAST), Haripur invites sealed bids from interested firms for the “Supply of Research Lab Equipment” under the following Lots.

- LOT 1: Spectrophotometer**
- LOT 2: Biomaterials and Tissue Engineering Equipment**
- LOT 3: Freeze Dryer**
- LOT 4: Rotary Evaporator**
- LOT 5: Fluorescence-Activated Cell Analyzer and Sorting Machine(s)**
- LOT 6: Micromanipulator and table**
- LOT 7: IVF Equipment**
- LOT 8: Water distillation and Purification systems**
- LOT 9: Anatomy**
- LOT 10: Sequencing equipment**
- LOT 11: Cell Culture Consumables**
- LOT 12: UPS**
- LOT 13: Glasswares**
- LOT 14: Plasticwares**
- LOT 15: Ice Making Machine**
- LOT 16: Incineration Chamber**
- LOT 17: Miscellaneous**

The bidder must be registered and duly recognized in Pakistan, and be registered with FBR; 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. 1,000/- Non-refundable (Stationery charges) for each LOT separately. Tender document can also be downloaded from <http://www.paf-iaast.edu.pk/> free of cost, however, interested bidders will be required to submit the Tender Fee in shape of Demand draft/ Pay Order in the name of Rector, PAF-IAST Haripur, along with the Bid of each LOT separately, in order to participate in tender process.

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 including Extended Warranty in the shape of CDR, in accordance with the instructions in this tender document. Bid Proposal(s) must reach PAF-IAST, Haripur on Thursday the 05 August, 2021 by 1200 hrs. Any late Bid(s) shall not be accepted and returned unopened. Accepted Bids will be opened on the same day at 1230 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 PPRA websites <http://www.paf-iaast.edu.pk/> & <http://www.kppra.org.pk> .

Project Director

Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology (PAF-IAST)

Hairpur – Khyber Pakhtunkhwa

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Section 2. Instruction to Bidders (ITB)

A. GENERAL TERMS	
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 6(2)(b) “Single Stage, Two Envelope Procedure” of Khyber Pakhtunkhwa Public Procurement Rules, 2014, as amended from time to time and instructions of the Government of Khyber Pakhtunkhwa 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>(a) Shall reject a bid if it determines that the selected bidder has engaged in any corrupt or fraudulent practices in competing for the contract in question;</p> <p>(b) Shall declare a vendor ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the vendor has engaged in any corrupt or fraudulent practices in competing for, or in executing a PAF- IAST 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	<p>4.1 The Bidder should be registered with Sales Tax and Income Tax Department as well as with the Khyber Pakhtunkhwa Revenue Authority.</p> <p>4.2 The Bidder should have not been blacklisted by any Government/ semi Government organization.</p> <p>4.3 There should be no litigation against the bidder/ firm.</p>
B. PREPARATION OF BIDS	
5. General Considerations	<p>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.</p> <p>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.</p>
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	<p>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.</p> <p>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.</p> <p>b) Documents Establishing the Eligibility and Qualifications of the Bidder;</p> <p>c) Bid covering Technical Specifications in detail, and covering Price Schedule;</p> <p>d) Bid Security, if required by BDS;</p> <p>e) Any attachments and/ or appendices to the Bid.</p>
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	<p>10.1 The Bidder is required to submit a Bid using the Standard Forms and templates provided in Section 6 of the ITB.</p> <p>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.</p> <p>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.</p>

	<p>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.</p>
11. Price Schedule	<p>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.</p> <p>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.</p>
12. Bid Security	<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"> a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or; b) In the event the successful Bidder fails: <ul style="list-style-type: none"> i. to sign the Contract after PAF-IAST has issued an award; or 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. <p>Note: Bid security will not be accepted in form of insurance guarantee as per KPPRA</p>
13. Currencies	<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"> 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 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.
14. Joint Venture, Consortium or Association	<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,</p>

	<p>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 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> <ol style="list-style-type: none"> Those that were undertaken together by the JV, Consortium or Association; and Those that were undertaken by the individual entities of the JV, Consortium or Association. <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>
15. Only One Bid	<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> <ol style="list-style-type: none"> they have at least one controlling partner, director or shareholder in common; or any one of them receive or have received any direct or indirect subsidy from the other/s; or they have the same legal representative for purposes of this ITB; or 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.

16. Bid Validity Period	<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>
17. Extension of Bid Validity Period	<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>
18. Clarification on ITB (from the Bidders)	<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>
19. Amendment in ITB	<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>
20. Alternative Bids	<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>
21. Pre-Bid Conference	<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</p>

	<p>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	
22. Bid Proposal Submission	<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 KPPRA Rule 6 (2)(b).</p> <p>22.2 The Outer Envelope should contain Two (02) separate sealed envelopes, one of which comprising the Forms (A – F) and supporting documents in accordance with requirements in the BDS, shall be marked as "Technical Proposal". Whereas, the other envelope containing the Form G: Price Schedule Form shall be marked as "Financial Proposal".</p> <p>22.3 The Bid Security as referred in BDS must be placed in the "Financial Proposal" in a duly sealed envelope and marked as "Bid Security". However, an Affidavit be submitted within "Technical Proposal" confirming that the Bid Security is placed/ enclosed with "Financial Proposal". Bid security envelop will be opened with financial proposal of Technically qualified bidders.</p> <p>22.4 Bid can be delivered either personally, or by courier as specified in the BDS.</p> <p>22.5 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>22.6 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>22.7 Hard copy submission by courier or hand delivery allowed or specified in the BDS shall be governed as follows:</p> <p style="padding-left: 40px;">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 style="padding-left: 40px;">(b) The Bid Proposals must be sealed and submitted in an envelope, which shall:</p> <p style="padding-left: 80px;">i. Bear the name of the Bidder;</p> <p style="padding-left: 80px;">ii. Be addressed to PAF - IAST as specified in the BDS; and</p> <p style="padding-left: 80px;">iii. Bear a warning not to open before the time and date for Bid opening as specified in the BDS.</p> <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>
23. Deadline for Submission of Bids and Late Bids	<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>

	23.2 PAF-IAST shall not consider any Bid that is received after the deadline for the submission of Bids.
24. Withdrawal, Substitution, and Modification of Bids	<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	<p>25.1 The Procurement Committee of PAF- IAST will open the Bid in the presence of Bidders’ representative(s) who choose to attend.</p> <p>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.</p> <p>25.3 In case of public holiday on bid opening day, bids will be opened on next working day.</p>
D. EVALUATION OF BIDS	
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> <p>a) They are not included in the list of blacklisted or barred companies published on KPPRA website, any federal or provincial government department;</p>

	<ul style="list-style-type: none"> b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments, 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; d) They are able to comply fully with the General Terms and Conditions of Contract; e) They do not have a consistent history of court/ arbitral award decisions against the Bidder; and f) They have a record of timely and satisfactory performance with their clients.
29. Evaluation of Bid Proposals	<p>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.</p>
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"> a) Verification of accuracy, correctness and authenticity of information provided by the Bidder; 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; 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; 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; e) Physical inspection of the Bidder's offices, branches or other places where business transpires, with or without notice to the Bidder; f) Other means that PAF-IAST may deem appropriate, at any stage within the selection process, prior to declaring the Bidder as Qualified.
31. Clarification of Bids	<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>
32. Responsiveness of Bid	<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>
33. Right to Accept, Reject, Any or All Bids	<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>
34. Nonconformities, Repairable Errors and Omissions	<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"> 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; 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 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>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	<p>35.1 PAF- IAST's grievance readdress procedure provides an opportunity for appeal to those persons 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.</p>

E. AWARD OF CONTRACT

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> <ul style="list-style-type: none"> a) Preliminary Examination including Technical Specifications and other compliances b) Arithmetical check and ranking of bidders who passed preliminary examination by price. c) Evaluation of prices <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	<p>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.</p>
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 15 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	<p>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.</p>
41. Sample draft Contract	<p>41.1 A sample draft Contract to be signed, containing applicable General Terms and Conditions can be found at Annex – II.</p>
42. Performance Security	<p>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.</p>
43. Bank Guarantee for Advanced Payment	<p>43.1 No Payment will be released in advance.</p>

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> <ul style="list-style-type: none"> 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. 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. 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. d) In case of any dispute, matter will be referred to Rector, PAF-IAST whose decision will be binding on both the parties.
45. Force Majeure	<p>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.</p>
46. Delivery of Goods	<p>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.</p>
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	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.
2.		Objective	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.
3.		Scope of Work	<p>Supply of Bio-Medical Science Lab Equipment The required items in various Lots as referred in Section – 5 have been sought by PAF-IAST 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>Post-Delivery Warranty and Support Services It is required that Manufacturer’s Warranty and Post-delivery Bidder’s Support Services for at least Three (03) years from the date of delivery to PAF-IAST be provided by the Supplier within the quoted cost of items.</p> <p>Moreover, additional Warranty and Support Services as Extended Warranty for next Two (02) 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>
4.		Procurement Method	KPPRA Rule 6(2)(b)
5.	7	Language of the Bid	English

6.	22, 23, 27	Submitting Bids for Parts or subparts of the Schedule of Requirements (partial bids)	The Purchase 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.
7.	20	Alternative Bids	Not Allowed.
8.	21	Pre-Bid conference	N/A
9.	16	Bid Validity Period	90 days
10.	13	Bid Security/ Earnest Money (Refundable)	<p><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.</p> <p><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 CDR in favor of the Project Director, PAF-IASST (Original CDR will be attached with the Financial Proposal in a signed and sealed envelope)</p>
11.	42	Liquidated Damages	<p>Will be imposed as follows:</p> <p>Percentage of contract price per day of delay: as referred in Draft Contract Sample in Annexure – II.</p>
12.	40	Performance Security	Within one week of issuance of Lol/ Purchase Order and well prior to the signing of Contract, as 10% of the Contract value for the duration of Warranty period referred in RFP.
13.	12	Currency of Bid	<p>Pakistani Rupees (PKR) based on Landed Cost including taxes, duties and all obligations to deliver, install, configure, and commission the equipment.</p> <p>Bidders are required that along with PKR, prices should be quoted in USD/Euro or applicable foreign currency as well). Bids are likely to be rejected if prices are not quoted in USD/ Euro or applicable foreign currency as well.</p> <p>However, Bid Security/ Earnest Money calculation of 2% of the Total Bid Value (including Extended Warranty) should be based on PKR value of Landed Cost of equipment as stated above.</p>
14.	31	Deadline for submitting requests for clarifications/ questions	3 days before the submission deadline
15.	31	Contact Details for submitting clarifications/ questions	<p>Focal Person in PAF: IASST:</p> <p>Lot 1-5, Dr. Humaira Ayub (email: humaira.ayub@fbse.paf-iasst.edu.pk)</p>

			<p>Lot 6-9, Dr. Fazal Wahab (email: fazal.wahab@fbse.paf-iaist.edu.pk)</p> <p>Lot 10-13, Dr. Fazli Wahid (email: fazli.wahid@fbse.paf-iaist.edu.pk)</p> <p>Lot 14-17, Dr. Farakh Javed (email: farakh.javed@fbse.paf-iaist.edu.pk)</p> <p>Phone: 0995-645170 0995-645112</p>
16.	18, 19, and 21	Manner of Disseminating Supplemental Information to the ITB and responses/clarifications to queries	<p>Direct communication to prospective Bidders by email and/ or Posting on the PAF: IAST website:</p> <p>labs@paf-iaist.edu.pk http://www.paf-iaist.edu.pk/</p>
17.	23	Deadline for Submission	Thursday the 05 August, 2021 on or before 12:00 noon (PST)
18.	22	Number of Set(s) of Bid	<p>Technical Proposal(s)</p> <ul style="list-style-type: none"> - One (01) Original - One (01) Copy - Soft copy of Technical Proposal in a USB Flash Drive <p>Financial Proposal(s)</p> <ul style="list-style-type: none"> - One (01) Original <p><i>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. Non-conformity may cause acceptance of Bid for only one Lot.</i></p>
19.	22	Allowable Manner of Submitting Bids	<input checked="" type="checkbox"/> Courier/ Hand Delivery
20.	22	Bid Submission Address	<p><input checked="" type="checkbox"/> By Courier / Hand Delivery: Convener Procurement Committee, PAF- IAST, Mang, Haripur</p>
21.	22	Electronic submission (email) requirements	Not Allowed
22.	25	Date, time and venue for the opening of bid	<p>Date and Time: Thursday the 05 August, 2021 at 12:30 PM</p> <p>Venue: Conference Room, PAF-IAST, Mang, Haripur</p>
23.	27, 36	Evaluation Method	Eligible and qualified bids meeting the PAF- IAST requirements and technically responsive as stipulated in this ITB
24.		Evaluation Method for the Award of Contract	Lowest priced technically responsive.
25.		Expected date for commencement of Contract	October 2021
26.		Maximum expected duration of Contract	60 months

27.	35	PAF: IAST will award the contract to:	One Bidder Only against each Lot											
28.	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.											
29.	46	Delivery, Installation and Testing/ Training	<table border="1"><tr><td></td><td>Delivery</td><td>Installation</td><td>Testing/ Training</td></tr><tr><td>LOT # 1-17</td><td>8 - 10 weeks</td><td>2 weeks</td><td>1 week</td></tr></table> <p>Delivery time may be extended for 4 to 5 weeks in case of large equipment that needs to be imported by sea.</p>					Delivery	Installation	Testing/ Training	LOT # 1-17	8 - 10 weeks	2 weeks	1 week
	Delivery	Installation	Testing/ Training											
LOT # 1-17	8 - 10 weeks	2 weeks	1 week											
30.	47	Payment Schedule	<p>Payment on Delivery of Equipment: 70% Payment on Commissioning: 30% The payment breakup is subject to the following conditions in case PAF-IAST decides to opt for LC:</p> <p>1.The Selected Bidder may take a 60-day credit time from the principal (in case of LC), in which case 70% of the payment shall be done to the principal at the time of delivery and 30% at the time of commissioning. In this case as well, 100% of the payment can be made to the principal subject to provision of 10% of the total amount in form bank draft by selected bidder as retention money that may be released in time span of three years.</p> <p>2. The selected bidder may submit 20% bank guarantee which shall be released to them at the time of commissioning and bank draft of 10% as retention money which shall be release to the M/s over three years. If the selected bidder complies to this condition, then 100% of the payment can be made to the principal at the time of Delivery of goods.</p> <p>Note: Payments are subject to 10% Retention money against Warranty & Support Services (PAF-IAST: Performance Security is the security applicable from date of signing of Contract and till the Contract is performed (i.e. deliveries, installation, configuration, commissioning, testing and trainings). Contractor is allowed to withdraw the Performance Security money along with the final payment. However, if they wish to, the Performance Security may be extended towards Retention Money for the duration of Warranty Services, or in case Performance Security is withdrawn, a fresh Bank Guarantee may be submitted to avoid any deduction from the payment(s)).</p>											

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.	Bidder's Status	Participating as <input type="checkbox"/> Individual Company <input type="checkbox"/> JV/ Consortium	Form B: Joint Venture/ Consortium/ Association Information Form
2.	Legal Status	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.	Location of Offices	Bidder (Lead Bidder) has either declared office(s) in Islamabad/ Rawalpindi/ Peshawar or in Haripur. Alternately, if the Contract is awarded, the Bidder shall establish office in either of these cities.	Form C: Bidder Information Form
4.	Principal's Authorization	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.	Company in Operation	Bidder (Lead Bidder) is in operation for at least Five (05) years.	Form C: Bidder Information Form
6.	Financial Strength	Average annual turnover over last 3 years no less than Rs. 10 million <i>(For JV/ Consortium/ Association, all Parties cumulatively should meet requirement).</i>	Form C: Bidder Information Form
7.	Relevant Experience	Minimum No. of Projects of similar nature, value, and complexity in last 3 years Two (02) projects <i>(For JV/Consortium/Association, all Parties cumulatively should meet requirement).</i>	Form C: Bidder Information Form
8.	Eligibility	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.	Bankruptcy	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
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	QUALIFICATION				
S. #	Attribute	Description	Max. Score	Criteria	Returnable Form(s)
	Section – I: General Corporate Profile		25		
10.	Bidder’s Footprints	Number of offices/ services centers across the country	5	4+ offices fully operational for last five (05) year	Form C: Bidder Information Form
			3	3 – 4 offices fully operational for last five (05) year	
			1	< 3 offices fully operational for last five (05) year	
11.	Bidder’s Human Resource Strength	Number of full-time employees (documentary proof required)	8	40+ employees with at least 20% Technical staff with at least 10% having technical certification	Form C: Bidder Information Form
			6	25 – 39 employees with at least 20% Technical staff at least 10% having technical certification	
			4	9 – 24 employees with at least 20% Technical staff at least 10% having technical certification	
			2	<8 employees with at least 20% Technical staff at least 10% having technical certification	
12.	Financial Standing	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. 0.5-1.9 million	
	Section – II: Business Profile		30		
14.	Relevant Experience	Project(s) of similar nature, value and complexity completed.	7	Min. No. of Projects + 5	Form D: Qualification Form
			5	Min. No. of Projects + 3	
			3	Min. No. of Projects + 2	
15.	Public Sector Experience	Project(s) delivered to government organizations	9	5 Projects worth \$0.5 million or more each	Form D: Qualification Form
			7	3 Projects worth \$0.25-0.49 million each	
			5	2 Projects worth \$0.05-0.24 million each	
16.	Education Sector Experience	Project(s) completed at education institutions.	9	2+ Projects	Form D: Qualification Form
			7	2 Projects	
			5	1 Project	

17.	Experience in Haripur/ Abbottabad	Project(s) completed in Haripur/ Abbottabad	5	Project worth Rs 5 million in Haripur/ Abbottabad	Form D: Qualification Form
			3	Project worth Rs 2.5 million in Haripur/ Abbottabad	
Section – III: Manufacturer’s/ Product’s Strengths			10		
18.	Manufacturer’s Global Presence	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.	Manufacturer’s Products Portfolio	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
Section – IV: Registration & Certifications			10		
20.	ISO 9001 Certified or equal if apply	Bidder or the Lead Bidder in case of JV should be Certified	5	Copy of Valid Certificate	Form E: Project Proposal Form
21.	Certification specific to quoted Products/ Solution	Bidder or any of the JV Partners or Principal should possess them	5	Copy of Valid Certificate(s) of the quoted Product(s)	Form E: Project Proposal Form
Section – V: Presentation on Project Proposal			25		
22.	Project Management Approach	Overall approach towards planning and implementing the project.	8	To be assigned by the Technical Committee	Form E: Project Proposal Form
23.	Post-Commissioning Services	Overall approach towards after-sale support and services.	7	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.	10	To be assigned by the Technical Committee	Form E: Project Proposal Form
Grand Total			100		
	Technical Evaluation	Bids shall be evaluated on both Eligibility and Technical Qualification Criteria. Bidders meeting the Eligibility Criteria and able to secure 70 percent in Technical qualification shall be declared as Technically Qualified Bidders for the next step, i.e. Opening of Financial Bid.			
	Financial Evaluation	Detailed analysis of the price schedule based on requirements listed in Section 5 and quoted for by the bidders in Form F. 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 least-cost basis .			

Note:

1. Presentation on proposed solution may be asked by the PAF-IASST for all or any of the LOT(s).

- 2. In case presentation is asked, bidders who meet the minimum Eligibility Criteria will only be called for Presentation and will be considered further towards Qualification scoring.***
- 3. In case presentation is not asked, then the evaluation shall be based on criteria excluding Section V.***

Section 5a: Technical Specifications of the Required Goods

LOT#1: Spectrophotometer			
Sr.#	Item	Description and Specifications	Quantity
1	Spectro UV-VIS Double Beam PC Scanning Spectrophotometer	<p>Photometric system Double beam with rear beam access</p> <p>Monochromator Double out-of-plane Littrow monochromator</p> <p>Source Full-spectrum xenon flash lamp</p> <p>Source flash rate 250 Hz or better</p> <p>Wavelength range 190 – 1100 nm</p> <p>Beam dimensions at sample interface < 1.5 mm</p> <p>Wavelength accuracy (nm) ± 0.2</p> <p>Wavelength reproducibility (nm) < 0.025</p> <p>Maximum scan rate 150,000 nm/min</p> <p>Accessories Latest PC, LCD, Printer etc. The instrument should be provided on plug and play basis</p> <p>On-site Training Atleast one on-site training from the principal upto customer satisfaction.</p> <ul style="list-style-type: none"> - The equipment must come from a reputable brand in the market with direct manufacturer support - engineer, application and logistics locally. It must have a strong track record for reliability, robustness and reproducibility. 	02

LOT# 02: Biomaterials and Tissue Engineering Equipment			
Sr.#	Item	Description and Specifications	Quantity
1	Automated Cell Counter	<ul style="list-style-type: none"> - The equipment must come from a reputable brand in the market with direct manufacturer support - engineer, application and logistics locally. It must have a strong track record for reliability, robustness and reproducibility - Counting mode: Brightfield channel plus two user changeable fluorescence channels. DAPI, GFP - Counting Time: As little as 10 seconds - Focus Autofocus with manual focus option - Easily gate cells and view histograms 	02

		<ul style="list-style-type: none"> - Gating based on fluorescence intensity System should enable to obtain transfection efficiency data - Transfection efficiency and viability, - Convenience built-in dilution calculator and ability to save minimum up to 10 user profiles - Optics: minimum 5 megapixels, 2.5X optical magnification, - Minimum 3 channels (bright-field plus 2 slots for LED light cubes) 	
3	Digital Colony Counter (Manual)	<ul style="list-style-type: none"> - The equipment must come from a reputable brand in the market with direct manufacturer support - engineer, application, and logistics locally. It must have a strong track record for reliability, robustness and reproducibility. - Operation: Manual - Light: Fluorescent or LED lamp; Accepts, minimum 100 mm and 150 mm dish - Enabling counting on both light and dark media - Needle point /marking pen probing Accessories. - Magnifier minimum 5" Stainless steel needle point pen - Marking pen probe 01 	02
	Digital Colony Counter (Automatic)	<ul style="list-style-type: none"> - The equipment must come from a reputable brand in the market with direct manufacturer support - engineer, application and logistics locally. It must have a strong track record for reliability, robustness and reproducibility - Operation: Automatic - Light: Switchable LED lighting - Enabling counting on both light and dark media - Screen: Detachable screen 	02
4	Liquid Nitrogen Storage System	<ul style="list-style-type: none"> - Samples at liquid nitrogen temperature with no liquid nitrogen contact. - Same internal usable space as existing liquid nitrogen freezers (no lost storage space). - Greatly reduces possibility of samples cross contamination. - Comes standard with 2301 Auto-Fill / Monitoring System. - Accommodates all standard rack systems. - Added user safety eliminating contact or splashing of liquid nitrogen. - Increased interior visibility. - Minimal interior temperature gradient. - Round space saving design. - Stainless steel construction. - Castor mounted for easy mobility. - Advanced woven lid gasket design. - Counter balanced lockable lid. - Annular fill and sensor tubes. - Aluminum square racks - Stainless steel square racks - LN2 Capacity (Liters): 30-80 - Controller Features: 	05

		<ul style="list-style-type: none"> - Time tested, reliable and designed to keep your sample storage safe and secure. - New 16 Port Connector: - 0-5 volt outputs provide temperature & level data for connection to existing alarm/monitor system. - 4-20 mA outputs provide temperature & level data for connection to existing alarm/monitor system. - Sequential and One-Fill-All-Fill input and output connection for filling systems. - New two level temperature display option: - Temp. A displays temperature at the lid, approximately 11"(27.94cm). - Temp. B displays temperature inside the storage space, approximately 20"(50.80cm) - Records 12 alarms & events such as fill start, fill stop, etc. with dated time stamp, printed or displayed. - Dedicated 24Vdc signal output to activate a third-24Vdc valve to control the LN2 supply. - Global Remote Alarm-Dry contact that switches during any alarm condition. - Date Log- Print or display Temp. A, Temp. B and level with date and time stamp. 	
2	Liquid Nitrogen Dewars	<ul style="list-style-type: none"> - Capacity (Metric) minimum 32 L - Type LN2 Transfer Vessel 	04
LOT# 03: Freeze Dryers			
Sr.#	Item	Description and Specifications	Quantity
1	Freeze dryer (LAB)	<ul style="list-style-type: none"> - The equipment must come from a reputable brand in the market with direct manufacturer support - engineer, application, and logistics locally. It must have a strong track record for reliability, robustness, and reproducibility <p>Condenser temperature: –55°C for typical aqueous solutions</p> <p>Automatic or manual sequencing of freeze-drying processes</p> <p>Ice condenser</p> <ul style="list-style-type: none"> • Capacity 4 kg or more • Performance 4 kg/24 h or more • Temperature (approx.) –55 °C/approx. -60°C 	02
LOT# 04: Rotary Evaporator			
Sr.#	Item	Description and Specifications	Quantity
1	Rotary Evaporator with Chiller and other Accessories	<ul style="list-style-type: none"> - The equipment must come from a reputable brand in the market with direct manufacturer support - engineer, application, and logistics locally. It must have a strong track record for reliability, robustness, and reproducibility 	02

		<ul style="list-style-type: none"> - Lift: Motor lift - Rotation speed: minimum range 10 - 280 rpm - Rotation speed indicator: LCD color graphic display - Overheat protection bathcut-off at 5 °C over set temperature - Size evaporating flask: Up to 5 L - Integrated vacuum controller: Yes - Timer: Yes <p><u>Must come with Regulated Vacuum Pumps</u></p> <ul style="list-style-type: none"> - Suction capacity for up to three rotary evaporators at the same time <p>Also there must be Chiller</p> <ul style="list-style-type: none"> - Automatic start and shut down feature - Temperature ranges from -10 °C to +40 °C - Temperature stability of ±0.5 	
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LOT# 05: Fluorescence-Activated Cell Analyzer and Sorting Machine(s)

Sr.#	Item	Description and Specifications	Quantity
1	Fluorescence-Activated Cell Analyzer and Sorting Machine(s)	<ul style="list-style-type: none"> - The equipment must come from a reputable brand in the market with direct manufacturer support - engineer, application, and logistics locally. It must have a strong track record for reliability, robustness, and reproducibility - There may be separate machines for “Cell Analyzer” and “Cell Sorting”, or both the functions may be performed by a single machine. - Cell Analyzer: <ul style="list-style-type: none"> - Minimum 05 lasers and 16 detectors capacity - Sample loading – system must have the capacity to load the samples as 96 well plates, 384 well plates, 5mL tubes and 1.5ml tubes etc - Cell Sorter: <ul style="list-style-type: none"> - Minimum 2-way sorting - Minimum Sorting collection, Up to 5 x 5 ml sample tubes each direction, Up to 5 x 1.5 ml tubes each direction, Microscope slides and 8-well strip each direction - Minimum 3 lasers - Minimum 6 detectors 	01 each

LOT# 06: Micromanipulator and table

Sr.#	Item	Description and Specifications	Quantity
1	Micromanipulator	<ul style="list-style-type: none"> - Hydraulic Micromanipulator System consisting of: Built in 3D Motor-Driven Course Control Micromanipulator & 3D Hydraulic Fine 	1

		<p>Micromanipulator NT-88-V3SH: 220-240V (2pcs) UJ-V3: Universal Joint with return mechanism (2pcs) NS-TEV3 Mounting Adapter for Ti2-U</p> <ul style="list-style-type: none"> - IM-9B Oil Microinjector Plunger 53mm, Full rotation of knob 500um, Full volumes 1060ul, Full rotation of knob approx. 10ul - IM-11-2 Pneumatic Air Injector 1 Plunger 53mm, Full rotation of knob approx. 6mm Total volumes 4240ul, Full rotation of knob approx. 480ul <p>COLOR CAMERA HEAD DS-Fi3 (CMOS C mount)</p>	
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LOT# 07: IVF Equipment			
Sr.#	Item	Description and Specifications	Quantity
1	Anti-Vibration Table (Passive system)	<ul style="list-style-type: none"> - Net Weight: 120 Kg - Dimensions (LxDxH): 1150mm x 720mm x 790mm - Load: 10 - 75 Kg 	2
2	Tube warmer	<p>Its fits 12 test tubes 14ml. The temperature is easy to change which allow</p> <ul style="list-style-type: none"> - Easier operations. The sides of the tube warmer are removable for easy cleaning. The aluminum block covers 2/3 of the tube which gives better uniform heat to the tubes. 	2
3	Heat Warmer for inverted microscope	<ul style="list-style-type: none"> - Hit Microwarm Plate Model TPX-TS2R or equivalent - Glass thickness: 0.5mm (whole area) - Strengthened glass plate 	1
4	Lykos Laser System for Zona drilling or equivalent	<p>The LYKOS features a laser-objective combination module that is mounted on the turret, leaving both the fluorescence and filter cube ports open. RED-I Target Locator built into laser module. No physical laser alignment is required. The LYKOS includes the computer hardware, imaging equipment and software required for safe and precise zona drilling, and image capture and storage</p> <p>LYKOS or equivalent HARDWARE:</p> <ul style="list-style-type: none"> - 40x Objective and Class 1, 1460 nm, 300 mW Laser combined into a single compact turret mounted unit - Laser Controller: High speed microcontroller with instantaneous closed loop laser power feedback control - Turret Adapters (3) included for mounting laser module to objective turret on all known inverted microscopes - Color Analog Camera - Calibration Slide - Laptop Computer: Includes Windows 	1

		<ul style="list-style-type: none"> - Computer-controlled target alignment Laser firing by Mouse or by Remote Fire Foot Switch Multi-pulse software must be fired by the foot switch Choice of target type: Circle, Arrow, Isotherm Rings (Isotherm Rings indicate peak temperatures from 140°C down to 50°C Image Acquisition For capture of static images. Includes auto capture on laser fire, manual and automatic image naming, image zoom and pan, manual and automatic image labeling, graphic overlays, and image thumbnail gallery. - Format choices: BMP, TIF, JPG. - Video Acquisition Software Used for capture and playback of real-time video (up to 1000 seconds) and time-lapse video (user defined capture interval and playback speed). Format: AVI. - Measurement & Documentation Software For interactive measurement of saved images and report REMOTE FIRE FOOT SWITCH 1 C-MOUNT ADAPTER (need make and model of microscope) 	
5	Time-Lapse Benchtop Incubator	<ul style="list-style-type: none"> - with 6 complete separate heating chambers, 230V 50/60Hz (Does not work as a stand-alone unit) Miri TL Technical Specifications: Overall Dimensions: 950mm x 600mm x 370mm (37.4" x 23.6" x 14.6") Miri Time-Lapse Benchtop Incubator with 6 complete separate heating chambers, 230V 50/60Hz (Does not work as a stand-alone unit) Miri® TL Technical Specifications: Overall Dimensions: 950mm x 600mm x 370mm (37.4" x 23.6" x 14.6") - Culturecoins,14 embryo/cltr coin(pk 25) 	1
6	Sperm Counting Chamber	<ul style="list-style-type: none"> - Makler Counting Chamber 	15
7	Casa system for automatic semen analysis	<ul style="list-style-type: none"> - CASA SYSTEM IVOS II-CLINICAL 1 (Fully Automatic) or equivalent - Measure Concentration, Motility, Morphology 10X Phase objective 	1
8	Liquid Nitrogen Tank	<ul style="list-style-type: none"> - Samples at liquid nitrogen temperature with no liquid nitrogen contact. - Same internal usable space as existing liquid nitrogen freezers (no lost storage space). - Greatly reduces possibility of samples cross contamination. - Comes standard with 2301 Auto-Fill / Monitoring System. - Accommodates all standard rack systems. - Added user safety eliminating contact or splashing of liquid nitrogen. - Increased interior visibility. - Minimal interior temperature gradient. - Round space saving design. - Stainless steel construction. 	2

		<ul style="list-style-type: none"> - Castor mounted for easy mobility. - Advanced woven lid gasket design. - Counter balanced lockable lid. - Annular fill and sensor tubes. - Aluminum square racks - Stainless steel square racks - LN2 Capacity (Liters): 30-80 - Controller Features: - Time tested, reliable and designed to keep your sample storage safe and secure. - New 16 Port Connector: - 0-5 volt outputs provide temperature & level data for connection to existing alarm/monitor system. - 4-20 mA outputs provide temperature & level data for connection to existing alarm/monitor system. - Sequential and One-Fill-All-Fill input and output connection for filling systems. - New two level temperature display option: - Temp. A displays temperature at the lid, approximately 11"(27.94cm). - Temp. B displays temperature inside the storage space, approximately 20"(50.80cm) - Records 12 alarms & events such as fill start, fill stop, etc. with dated time stamp, printed or displayed. - Dedicated 24Vdc signal output to activate a third-24Vdc valve to control the LN2 supply. - Global Remote Alarm-Dry contact that switches during any alarm condition. 	
9	Cryo Shipping container	- (Cryo Shipping container): SC 4/2 V SHIPPING CONTAINER + ASSY FOR SC 4/2 V	3
10	Digital Suction Pump	- Digital Suction Pump for Oocytes collection	3
11	IVF Real Time Lab Monitoring System	- IVF Real Time Lab Monitoring System All Labs 1 Real time monitoring of CO2, Temperature, Alarm output, Room temperature and Humidity, O2 level of Cryo Room	2

12	Gas Analyzer	<ul style="list-style-type: none"> - GAS ANALYZER, CO2, O2, TEMPERATURE & HUMIDITY - (CO2 Analyzer) New electronic CO2 analyzer specifically designed to monitor CO2, O2 and temperature for the verification of incubators in research, IVF, and pharmaceutical markets. This unit has been developed to incorporate the latest technology and specification requirements, that provide the user with a fast, simple to use and accurate piece of laboratory kit. Benefits - Improved accuracy on CO2 and O2 readings - Quick verification of CO2 and O2 incubator levels - Time saving with dual temperature probes - Large data storage and user friendly software and download - Easy to read large well lit display - Built in gas moisture removal Applications - Calibration of inbuilt CO2 sensor 	4
13	Cryo gloves	- Cryo gloves size x large, midarm length	10 pairs

LOT# 08: Water Purification System

Sr.#	Item	Description and Specifications	Quantity
1	water purification system with accessories	<ul style="list-style-type: none"> - Frequency 50/60 Hz - Feedwater Connector 3/4 in. NPT - Product Water Type Type 1 and 2 - TOC Monitor with UV Intensity Monitoring No - Type Water Purification System - Resistivity Type 1: 18.2 Mohm.cm at 25°C; Type 2: 10 to 15 Mohm.cm at 25°C - Conductivity Type 1: 0.055 µS/cm, Type 2: 0.067 to 0.1 µS/cm - Feedwater Source Tap - Flow Rate 0.6 L/min. - Total Organic Carbon 1 to 5 ppb - Endotoxin Concentration 0.005 EU/mL - Bacterial Content <0.01 CFU/mL - Particles >0.2 µM/mL <1 - Feed Water Monitoring No - Feedwater Pressure 1 to 6 bar - Height (Metric) 545 mm - Width (Metric) 305 mm - Net Weight (Metric) 22 kg - Operating Pressure 1 to 6 bar - Voltage 100/240 V - Bacterial retention 99% - Depth (Metric) 400 mm - Model Smart2Pure 12 UV/UF - Permeate performance 12 L/hr. at 10°C - Power Consumption 0.06 kW - RO Flow Rate 12 L/hr. 	02

		<ul style="list-style-type: none"> - Electrical Requirements100/240 V 50/60 Hz - IncludesRO/pretreatment cartridge, an ultrapure polisher cartridge, sterile 0.2µm filter, pressure regulator, UV lamp and UF filter. - Unit SizeEach 	
2	Water purification system	<ul style="list-style-type: none"> - Frequency50/60 Hz - Feedwater Connector3/4 in. NPT - Product Water TypeType 1 and 2 - TOC Monitor with UV Intensity MonitoringNo - TypeWater Purification System - ResistivityType 1: 18.2 Mohm.cm at 25°C; Type 2: 10 to 15 Mohm.cm at 25°C - ConductivityType 1: 0.055µS/cm, Type 2: 0.067 to 0.1µS/cm - Feedwater SourceTap - Flow Rate1 L/min. - Total Organic Carbon1 to 5 ppb - Endotoxin Concentration0.005 EU/mL - Bacterial Content<0.01 CFU/mL - Particles >0.2µM/mL<1 - Remote DispenserNo - Feed Water MonitoringNo - Feedwater Pressure1 to 6 bar - Height (Metric)545 mm - Width (Metric)305 mm - Net Weight (Metric)22 kg - Operating Pressure1 to 6 bar - Voltage100/240 V - Bacterial retention99% - Depth (Metric)400 mm - ModelSmart2Pure 12 UV - Permeate performance12 L/hr. at 10°C - Power Consumption0.06 kW - RO Flow Rate12 L/hr. - Electrical Requirements100/240 V 50/60 Hz - IncludesRO/pretreatment cartridge, an ultrapure polisher cartridge, sterile 0.2µm filter, pressure regulator, UV lamp - Unit SizeEach 	02

LOT# 09: Anatomy			
Sr.#	Item	Description and Specifications	Quantity
1	Human Skeleton Model on Hanging Stand	Country of Origin: USA/EUROPE/UK Technical Specification: The below should be included <ul style="list-style-type: none"> • Top quality natural casting • Final assembly carried out by hand • Made from a durable, unbreakable synthetic 	02

		<p>material</p> <ul style="list-style-type: none"> • On a stable metal hanging stand with 5 casters (painted white) • Close to the realistic weight of around 200 bones • Natural skeleton size • 3 part assembled skull • Individually inserted teeth • Limbs can be removed quickly and easily <p>Must have Digital Anatomy benefits</p> <p>Comes with metal hanging stand and transparent dust cover.</p>	
2	Human Skeleton Model Leo with Ligaments	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>Top quality natural casting</p> <ul style="list-style-type: none"> • Final assembly carried out by hand • Made from a durable, unbreakable synthetic material • On a stable metal stand with 5 casters (painted white) • Close to the realistic weight of around 200 bones • Natural size • Anatomically correct • 3 part assembled skull • Individually inserted teeth • Limbs can be removed quickly and easily <p>Must have Digital Anatomy benefits</p>	02
3	3B MICROanatomy™ Human Bone Structure, 80 times enlarged	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>The model should depicts a three-dimensional section of a lamellar bone, showing a typical structure of a tubular bone enlarged 80 times. The bone structure model shows various planes in cross and longitudinal section through all levels of the bone, as well as a 2-plane section through the inner structure of the bone marrow. The typical elements of a lamellar bone are easily identified in this bone structure model and help to understand its structure and function with the characteristic osteons, also referred to as Haversian systems. This bone structure model allows a graphic illustration of the interplay of the individual components, such as spongy and compact substance, endosteum, cortical substance, osteocytes, Volkmann and Haversian canals.</p> <p>Must have Digital Anatomy benefits</p>	02
4	Human Hand Skeleton Model with Ulna & Radius, Elastic Mounted String	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This hand skeleton should be a high quality for detailed anatomical study. Hand skeleton loosely mounted on bungy string. Ulna and radius wire mounted for realistic anatomical detail with the hand being able to supinate and pronate.</p>	04

		Must have Digital Anatomy benefits	
5	Foot & Ankle Skeleton, Elastic Mounted	Foot & Ankle Skeleton, Elastic Mounted Country of Origin: USA/EUROPE/UK Technical Specifications: This loose foot and ankle skeleton should comes mounted with elastic bungy for a flexible effect. The foot skeleton should includes portions of the tibia and fibula. Flexible throughout for a more realistic anatomy model of the human foot. Must have Digital Anatomy benefits	04
6	Didactic Flexible Human Spine Model with Femur Heads	Country of Origin: USA/EUROPE/UK Technical Specifications: The below 5 different sections should be present. <ul style="list-style-type: none"> • 7 cervical vertebrae • 12 thoracic vertebrae • 5 lumbar vertebrae • Sacrum • Coccyx Other general features must be present. <ul style="list-style-type: none"> • Full pelvis and occipital plate • Fully flexible mounting throughout spine • L3-L4 disc prolapsed on spine • Spinal nerve exits • Cervical vertebral artery • Male pelvis • With movable mounted femur heads Must have Digital Anatomy benefits	04
7	Beauchene Adult Human Skull Model, Bone Colored Version, 22 part	Country of Origin: USA/EUROPE/UK Technical Specifications: The skull should consists of the following individual bones: <ul style="list-style-type: none"> • Parietal bone (left and right) • Occipital bone • Frontal bone • Temporal bone (left and right) • Sphenoid bone • Ethmoid bone • Vomer bone • Zygomatic bone (left and right) • Upper jaw (maxilla) with teeth (left and right) • Palatine bone (left and right) • Nasal concha (left and right) • Lacrimal bone (left and right) • Nasal bone (left and right) • Lower jaw (mandible) with teeth Must have Digital Anatomy benefits	04
8	3/4 Life-Size Dual Sex Human Muscle Model on Metal Stand,	Country of Origin: USA/EUROPE/UK Technical Specifications: Includes the following features: <ul style="list-style-type: none"> • 5 arm/shoulder muscles 	02

		<ul style="list-style-type: none"> • 8 leg/hip muscles • 2-part removable heart • 5-part head with removable brain • 2-part removable lungs • 2-part stomach • Removable 4-part male and 2-part female genital inserts • Detachable arms, leg, head, and abdominal wall for detailed study <p>Must have Digital Anatomy benefits</p>	
9	Classic Unisex Human Torso Model, 14 part	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications</p> <ul style="list-style-type: none"> • 3-part head • 2 lungs • 2-part heart • Stomach • Liver with gall bladder • 2-part intestinal tract • Front half of kidney • Front half of urinary bladder <p>All the organs in this human torso are hand painted for a quality product. This great human anatomy educational tool makes learning the location of the human organs easy.</p> <p>Must have Digital Anatomy benefits</p>	02
10	Classic Unisex Human Torso Model, 16 part	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>It should shows the human anatomy in great detail and contains the following removable parts:</p> <ul style="list-style-type: none"> • 3-part head • 2 lungs with sternum and rib attachments • 2-part heart • Stomach • Liver with gall bladder • 4-part intestinal tract • Front half of kidney • Front half of urinary bladder <p>All the organs in this human torso are hand painted for a quality product. This great human anatomy educational tool makes learning the location of the human organs easy.</p> <p>Must have Digital Anatomy benefits</p>	02
11	Human Skin Section Model, 70 times Full-Size	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This unique skin model shows a section of human skin in three dimensional form. Individual skin layers are differentiated, and important structures of the skin such as hair, sebaceous and sweat glands, receptors, nerves and vessels are shown in detail. This skin block model details the human skin in 70 times life size.</p> <p>Must have Digital Anatomy benefits</p>	04

12	Human Brain Model with Arteries, 9 part	Country of Origin: USA/EUROPE/UK Technical Specifications: Both halves of this high quality brain model must have: <ul style="list-style-type: none"> • Frontal with parietal lobes • Temporal with occipital lobes • Half of brain stem • Half of cerebellum Must have Digital Anatomy benefits	04
13	Head and Neck, 5 part	Country of Origin: USA/EUROPE/UK Technical Specifications: Representation of the head (differentiated in colour), medially divided. The skin and facial muscles of the right outer half are removed to show the deeper structures. Eyeball, bone cover over the sinus maxillaries and right tongue half are removable. Must have Digital Anatomy benefits	04
14	Giant Functional-Center Brain, 4 part	Country of Origin: USA/EUROPE/UK Technical Specifications: This popular brain model reproduces the brain of a right-handed person, employing contrasting colors and hand-lettered captions to locate and identify motor and sensory functional centers within the brain. In addition to focusing on the intellectual role of the dominant left brain, and the creative role of the right brain, the model highlights the emotional, sexual, memory and learning functions of the limbic system. Sensory regions and centers receptive to 20 specific body regions are distinguished within the brain, as are the motor centers controlling 19 body regions. The following lobes and regions of this 2-times life-size brain are represented in different colors and labeled in English: <ul style="list-style-type: none"> • Frontal lobe • Parietal lobe • Occipital lobe • Temporal lobe • Motor cortex • Somatosensory cortex • Limbic cortex • Cerebellum • Brain stem Must have Digital Anatomy benefits	04
15	Human Nervous System Model, 1/2 Life-Size	Country of Origin: USA/EUROPE/UK Technical Specifications:	02

		<p>This nervous system relief model shows a schematic representation of the central and peripheral nervous system. An excellent nervous system model to study the structure of the human nervous system. This nervous system model is 1/2 life size and is a great teaching tool. The nervous system model is delivered on baseboard.</p> <p>Must have Digital Anatomy benefits</p>	
16	Human Eye Model, 5 times full-size, 8 part	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>Removable parts of the anatomical human eye model include:</p> <ul style="list-style-type: none"> • Upper half of the sclera with cornea and eye muscle attachments • Both halves of choroid with iris and retina • Eye lens • Vitreous humour • Eyelid • Lachrymal system • Anatomical features around the eyeball <p>Must have Digital Anatomy benefits</p>	02
17	Human Eye Model, 5 times Full-Size, 12 part	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>Eye dissects into:</p> <ul style="list-style-type: none"> • Two halves of the sclera • Optic nerve • M. rectus superior • M. rectus lateralis • Cornea half • Eye lens • Lachrymal system • Vitreous humour • Tear gland • Associated structures <p>A great model of the anatomy of the human eye.</p> <p>Must have Digital Anatomy benefits</p>	02
18	Human Ear Model, 3 times Life-Size, 4 part	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This high quality model of the human ear represents outer, middle and inner ear. The detailed human ear model has removable eardrum with hammer, anvil and stirrup as well as 2-part labyrinth with cochlea and auditory/balance nerve. Ear on base for easy display in a classroom or doctor's office.</p> <p>Must have Digital Anatomy benefits</p>	04
19	Dentition Development Model	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p>	02

		<p>4 different stages of dentition development should be present</p> <ul style="list-style-type: none"> • New born • Approx. 5-year old child • Approx. 9-year old child • Young adult Dentition development model on a stand. <p>Must have Digital Anatomy benefits</p>	
20	Giant Molar with Dental Cavities Human Tooth Model, 15 times Life-Size, 6 part	<p>Country of Origin: USA/EUROPE/UK Technical Specifications: This giant molar model depicts an upper triple-root molar and separates into 5 parts. The molar features a longitudinal section through the crown, two roots and the pulp cavity. The giant molar contains removable pulp and three tooth inserts with different stages of advanced cavities. Giant molar with dental cavities on stand.</p> <p>Must have Digital Anatomy benefits</p>	02
21	Life-Size Human Heart Model, 5 parts	<p>Country of Origin: USA/EUROPE/UK Technical Specifications: Its attention to detail and high quality craftsmanship makes it definitely the top of the line heart model. The following feature should set makes it use full for education</p> <ul style="list-style-type: none"> • All of the original heart structures were successfully obtained during the time consuming and detailed casting procedure making this model highly accurate and lifelike • 2 atria and 2 ventricles show all the normal anatomical structures of the papillary muscles and heart valves • Uniquely dissected in the median plane to optimally demonstrate the path of the oxygenated and deoxygenated blood • The heart model shows both the diastolic and systolic state. In the model itself the valves are shown in the diastolic state and in the detail view on the base the valves are shown in the systolic state • The heart valves are made of elasticated plastic making them very durable • The base displays the heart in its natural position in the human body • Life size cast from real human heart • Easy and fun to use magnetic assembly (5 pieces) for easy demonstrations <p>Must have Digital Anatomy benefits</p>	02
22	Classic Human Heart Model with Bypass	<p>Country of Origin: USA/EUROPE/UK Technical Specifications: The front heart wall should be detachable to reveal the chambers and valves inside. Heart just slightly</p>	02

		<p>smaller than life-size with exquisite anatomical detail throughout. Heart includes venal bypasses to the right coronary artery, to the ramus interventricularis anterior, and also to the ramus circumflexus of the left coronary artery, which are shown in color. This heart model is a great aid explaining the treatment of coronary heart disease. Heart on removable stand.</p> <p>Must have Digital Anatomy benefits</p>	
23	Classic Human Heart Model, 2 part	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>The front heart wall is detachable to reveal the chambers and valves inside the human heart. The classic heart model just slightly smaller than life-size with exquisite anatomical detail throughout. Great model of the anatomy of the human heart. Stand included with this high-quality heart.</p> <p>Must have Digital Anatomy benefits</p>	02
24	Human Circulatory System Model	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This 1/2 life-size relief model of the human circulatory system should details the following anatomical structures:</p> <ul style="list-style-type: none"> • The arterial/venous system • Heart • Lung • Liver • Spleen • Kidneys • Partial skeleton <p>A colorful and anatomically accurate teaching aid of the human circulatory system. Circulatory system delivered on baseboard for easy display in a classroom or doctor's office.</p> <p>Must have Digital Anatomy benefits</p>	02
25	Segmented Lung Model	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This high quality Segment Lung Model shows the lungs with representation of the bronchial tree close to the heart, trachea, oesophagus and aorta.</p> <p>The Lung is detachable into two lobes and single segments. The segments are colour coded and their position can be easily identified in the bronchial tree. The bronchial tree contains the lobar bronchi and segmental bronchi.</p> <p>All segments are connected by magnets which allow a safe and easy handling of this very high quality didactic model.</p> <p>Must have Digital Anatomy benefits</p>	02
26	Lung Model with Larynx, 5 part	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p>	02

		<p>This high quality Lung model has the following features:</p> <ul style="list-style-type: none"> • Larynx • Trachea with bronchial tree • 2-part heart (removable) • Vena cava • Aorta • Pulmonary artery • Esophagus • 2-part lung (front halves removable) <p>Must have Digital Anatomy benefits</p>	
27	Model of Pulmonary Lobule with Surrounding Blood Vessels, 130 times Magnified	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>The following should be represented:</p> <ul style="list-style-type: none"> • Segmental bronchus and its terminal branches (bronchioles) • Alveolus opened on the right side • Pulmonary vessels and their capillary networks • Branch of a bronchial artery • Pulmonary pleura • Connective tissue septum on the left side • Single opened alveolus with surrounding capillary network with a magnification of approx. 1000x on the rear side <p>Must have Digital Anatomy benefits</p>	02
28	Human Larynx Model, 2 times Full-Size, 7 part	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This medially sectioned larynx model shows:</p> <ul style="list-style-type: none"> • Larynx • Hyoid bone • Windpipe • Ligaments • Muscles • Vessels • Nerves • Thyroid gland Thyroid cartilage, 2 muscles and 2 thyroid gland halves are removable from larynx. <p>Must have Digital Anatomy benefits</p>	02
29	Liver Model with Gall Bladder	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This realistic model shows the anatomy of the liver and gall bladder. The Liver with gall bladder shows:</p> <ul style="list-style-type: none"> • 4 lobes with gall bladder • Extrahepatic ducts • Hilus vessels 	02

		<p>This high quality liver with gallbladder replica is delivered on removable stand.</p> <p>Must have Digital Anatomy benefits</p>	
30	Liver Model with Gall Bladder, Pancreas & Duodenum	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This excellent liver with gall bladder relief model shows the liver with:</p> <ul style="list-style-type: none"> • Ducts • Gall bladder • Pancreas • Duodenum • Vessels • Extra-hepatic ducts with gall bladder • Main pancreatic duct and their orifices <p>Must have Digital Anatomy benefits</p>	02
31	Kidney with Adrenal Gland	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This high quality human kidney model shows:</p> <ul style="list-style-type: none"> • Kidney with adrenal gland • Renal and adrenal vessels of the kidney • Upper portion of ureter for the human kidney <p>The front half of the kidney is removable to enable demonstration of cortex medulla and vessels for teaching about the human kidney. The renal pelvis of the kidney is also displayed. 20 important structures of the human kidney are included in the anatomy key. Kidney with adrenal gland model comes on stand.</p> <p>Must have Digital Anatomy benefits</p>	02
32	Male Urinary System Model, 3/4 Life-Size	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This urinary system model shows the structures of the retroperitoneal cavity in the following details:</p> <ul style="list-style-type: none"> • Inferior vena cava • Renal veins • Aorta with its branches • Iliacal vessels • Ureter • Urinary bladder • Prostate • Adrenal gland • Rectum • Musculature <p>Must have Digital Anatomy benefits</p>	02
33	Male Pelvis Model in Median Section, 2 part	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>The male pelvis anatomy model is shown in median section. One half of male genital organs with bladder</p>	02

		<p>is shown at the normal position in the male pelvis. The rectum is removable for a more detailed study of the male pelvic anatomy.</p> <p>Must have Digital Anatomy benefits</p>	
34	Human Female Pelvic Skeleton Model	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This skeleton is great for detailed study of the skeletal anatomy of the female pelvis. Consisting of hip bone, sacrum with coccyx and 2 lumbar vertebrae as well as movable symphysis this pelvic skeleton is top quality. It is a great tool for studying human pelvic anatomy.</p> <p>Must have Digital Anatomy benefits</p>	02
35	Human Male Pelvis Skeleton Model	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This male pelvis skeleton replica should consists of hip bone, sacrum with coccyx and 2 lumbar vertebrae.</p> <p>Must have Digital Anatomy benefits</p>	02
36	Male Pelvis Model in Median Section, 2 part	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>The male pelvis anatomy model is shown in median section. One half of male genital organs with bladder is shown at the normal position in the male pelvis. The rectum is removable for a more detailed study of the male pelvic anatomy.</p> <p>Must have Digital Anatomy benefits</p>	02
37	Ovaries & Fallopian Tubes Model with Stages of Fertilization, 2-times magnified	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>The model illustrates schematically how the ovum matures, how ovulation and fertilization occur and how the fertilized ovum develops to the stage where it embeds itself in the womb wall to begin the growth into an embryo.</p> <p>The various stages are shown in larger-than-life model form in an ovary, fallopian tube, and womb. An even more enlarged illustration of each is also printed on the base.</p> <p>Must have Digital Anatomy benefits</p>	02
38	Pregnancy Models Series, 5 Embryo & Fetus Models on a Base	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>The series should include below.</p> <ul style="list-style-type: none"> • 1st Month Embryo, • 2nd Month Embryo, • 3rd Month Embryo, • 5th Month Foetus (breech position) • 7th Month Foetus <p>Must have Digital Anatomy benefits</p>	02
39	Intra-muscular Injection Pad	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p>	04

		<p>A simple intramuscular injection pad trainer that simulates muscle tissue.</p> <ul style="list-style-type: none"> • Injection made to a depth of 50mm • Has a life-like skin • Will absorb fluid 	
40	Intramuscular injection simulator	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>Basic Version for practicing intramuscular injections.</p> <p>The intramuscular injection simulator enables students to practice carrying out intramuscular injections cost-effectively. This fluid is injected into the muscle with a syringe. Carrying out intramuscular injections is one of the basic procedures in clinical training and must be carried out professionally by both doctors and medical personnel. Vaccines and time-release drugs for which a longer resorption time is desired are often administered with an intramuscular injection.</p> <p>Training with a simulator gives an introduction to carrying out intramuscular injections, enables students to practice and to repeat the procedure over and over until the students and trainees have full mastery of the act. Students can practice inserting the injection with fluid up to depths of 50 mm.</p> <ul style="list-style-type: none"> • Practice carrying out intramuscular injection with fluid up to a depth of 50 mm • Quick-change skin pads that can be pierced multiple times • Easy to clean and dry <p>The intramuscular injection simulator by 3B Scientific is delivered with three skin pads that can be pierced multiple times. The simulated muscle mass on the inside absorbs the fluid. The simulator can be simply dried after use and stored away without taking up lot of room.</p>	02
41	Intramuscular Injection Simulator	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This high-quality I.M. simulator represents a right upper arm with all important anatomical palpable landmarks such as acromion and humerus. The realistic anatomy allows for placing correct intramuscular injections in an exceptionally graphic way. The built-in fine electronics produce audio-visual feedback of the result, e.g. correct or incorrect injection, bone contact, or wrong location. Additional</p>	02

		<p>trainings and control modes optionally provide an immediate or subsequent performance check under training conditions. The included lifelike silicone skin is extremely durable and can be quickly and easily exchanged when necessary.</p> <p>The intramuscular simulator is supplied with:</p> <ul style="list-style-type: none"> • 2 AA batteries • detailed instruction manual • replacement skin • 5-ml injection syringe • 21G/0.8 injection needle <p>Intramuscular injection can be practiced realistically without a real patient!</p>	
42	Skin Suture Trainer	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>A great low cost way to practice surgical opening and closing techniques. Features:</p> <ul style="list-style-type: none"> • Economical reversible pad • The material has been designed to make complex incisions such as "flap and dog turn" suturing more realistic • A sub-dermal layer is present so that it is possible to make secure intra-dermal sutures • Base has suction feet to enable slip free use. 	04
43	Interactive Suture Trainer	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>The Life/form® Interactive Suture Trainer offers students a true-to-life clinical simulation experience. The trainer attaches easily to a person's or manikin's arm, leg, or hip, allowing practice of suturing techniques in addition to essential communication and patient interaction skills. This convenient, cost-effective kit offers practice at all skill levels, including tying knots, placement of staples, and suturing both superficial and deep wounds. By making their own incisions, the instructor or student is able to determine the depth of suturing and the proper technique to be used. Wounds automatically open when cut. Includes suture pad, attachable pad base with straps, needle holder, suture scissors, tissue forceps, scalpel, soft carrying case, nylon suture, instrument case and instruction manual.</p>	04
44	Suture Practice Arm	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>This arm is made of a soft vinyl skin over a foam allowing hundreds of suture practice sessions. The</p>	04

		<p>arm comes with 3 wounds, as well as several cuts which can be placed all over the arm, hand and fingers and sutured several times. The soft and pliable material guarantees the sutures will not pull out when tightened.</p> <p>Delivered with a starter suturing kit which includes suturing needle and thread.</p>	
45	Suture Practice Leg	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>Made with a soft vinyl skin over a core of stitchable foam to provide a lifelike suturing experience for students or a realistic suturing demonstration by an instructor.</p> <p>Realistic skin texture with wrinkles and pores. Soft and pliable for easy sewing, the skin is tough enough that sutures will not pull out when tightened. Each unit provides three "wounds." These "wounds" can be sutured repeatedly until the skin around them is finally worn out; then, new "wounds" can be cut. Although disposable, the trainers provides hundreds of suturing experiences before wearing out. Conservatively, over one hundred cuts can be made on the trainer and each of these cuts can be sutured several times.</p> <p>Suture Practice Leg is complete with a starter suturing kit and instruction booklet.</p>	04
46	Anatomical Charts	<p>Country of Origin: USA/EUROPE/UK</p> <p>Technical Specifications:</p> <p>These anatomical chart illustrates the in colorful detail. All the important features are labeled on this anatomy poster for easy study. This thickly laminated anatomical chart is printed on premium glossy (200 g) UV resistant paper. This poster also comes with 2 sided lamination (75 micron). It comes in a convenient poster size 50 x 67 cm (20x26") and can be written on and wiped off with non permanent markers. The 75 micron lamination ensures the chart does not curl up at the edges and the UV treatment ensures the chart does not get a faded yellow color over time.</p>	2 each
47	Tissue Slides	<p>Prepared human and animal tissue anatomy microscope slides</p> <p>Anatomical Slides:</p> <ul style="list-style-type: none"> - Glass slides must have round corner, prevent cuts, pre-cleaned and safe 	02 each

		<ul style="list-style-type: none"> - Must be optical glass material slides and suitable for any microscope and easy to see samples <p>Slides must be well-labeled and protected against dampness moisture, shock and breakage</p>	
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LOT# 10: Sequencing Equipment			
Sr.#	Item	Description and Specifications	Quantity
1	Genetic Analyzer with accessories	<p>Should have the ability of real-time monitoring of quality control results.</p> <p>Should allow seamless integration into the existing sequencing application.</p> <p>Should be able to perform the Determination of DNA sequence variants, alignments, and fragment analysis must be all available immediately upon completion of a run.</p> <p>Should be able to process samples from either standard 96-well plates or 8-well strip tubes.</p> <p>Must have all consumables into one cartridge or minimum consumables.</p> <p>Sequencing and fragment analysis applications DNA Sequencer</p> <p>Less than 15 minutes of sequencer hands-on time.</p> <p>Less than 45 minutes of hands-on time for a DNA-to-data targeted sequencing workflow.</p> <p>2.5 hours for a sequencing run</p> <p>Less than 26 hours to go from DNA to data.</p> <p>Less than 10ng low-quality DNA or RNA needed to generate mutational or gene expression profiles.</p> <p>Bench top Single sequencer for multiple applications formats.</p>	01
2	Next Generation Sequencer (NGS)	<p>The Instrument should be Brand new- the following specifications are minimum requirement system with higher specifications then the mentioned should be quoted.</p> <p>The instrument should be fully automated Library & Template preparation</p> <p>System would be utilized for the Multiple Application.</p> <p>Minimum Data output of the system should be 10 GB or better in 24 hours</p> <p>The system should be able to deliver the Number of single Read of 50Million number of Reads.</p> <p>System should be able to cater for the Read length (Fragment Size of 300 bp)</p> <p>The System should be able to perform the analysis of the DNA & RNA samples with sample volume upto 5 ng with & should also work for FFPE samples with the maximum volume for sample required 10ng.</p> <p>The manufacturer should offer ready to use panels along with flexibility of custom design panels.</p> <p>The instrument should be able to perform as low as one sample in each run.</p>	01

		Software: The Analysis software should perform base calling and alignment for single samples. The software should Identify and annotate the variants of interest with public or private databases, and perform multi-sample comparisons. The software should have Preconfigured analysis workflows for single, paired, or multiple samples The instrument should be quoted along with all software's to perform complete bioinformatics analysis.	
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LOT# 11: Consumables Cell Culture			
Sr.#	Item	Description and Specifications	Quantity
1	Plastic ware	U-Shaped Canted Neck Cell Culture Flask with Vent Cap (25cm ² , 75, 175, 250, 500) Rectangular Canted Neck Cell Culture Flask with Vent Cap (25cm ² , 75, 175, 250, 500) 10mL Stripette® Serological Pipets, Polystyrene 15 mL Centrifuge Tube; Bulk; Sterile 50 mL Centrifuge Tube; Bulk; Sterile Tissue Culture Plates-Treated Microplate with Lid (well plates & micro plates) 6 Well Clear, Tissue Culture-Treated Multiple Well Plates with Lid; Sterile 0.5 - 10uL Microvolume Pipet Tips, Non-Filtered, Clear, Sterile, Rack Pack 100 µL Universal Fit Filter Tips, Clear, Sterile, Rack Pack, 96 Tips/Rack 1- 200uL Universal Fit Pipet Tip, Bevelled, Yellow, Non-Sterile, 1000 Tips/Pack 100 - 1000uL Pipet Tips, Bevelled, Clear, Sterile, Rack Pack, 100 Tips/Rack 1.5mL Snaplock Microcentrifuge Tube, Polypropylene, Clear, Sterile 1.5mL MaxyClear Snaplock Microcentrifuge Tube, Polypropylene, Clear, Non-Sterile 2mL External Threaded Polypropylene Cryogenic Vial, Self-Standing with Round Bottom TUBE RACK FOR MICRO TUBE Media filtration assembly disposable (1L) Cell culture Petri dishes (25mm, 30mm,50mm,100mm,150mm,200mm) Cryotubes with color options (1.5ml, 2ml, 5ml) Spatulas and micro spatulas	2 cartons each
2	Plastic bags sealer	-Driven Type: Electric -Dimension: 320x80x150 mm (LxWxH) -Max Seal Thickness: 0.3 mm	12
3	Paper measuring and cutting scale	-Material: Plastic + Alloy -Size: 38.2 * 15.5* 3.5cm/ 15 x 6.1 x 1.4 inches -Maximum Cutter Width: 31cm/12.20 inch	12

4	Automatic Shoe Machine	-Shoe cover machine with automatic spring loaded dispensing mechanism for hands-free covering of shoes. -Use by labs, portable and lightweight. -Disposable Shoe Cover Size: Average, one size fits all (for most adult shoe sizes) Surface material: Stainless steel	04
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LOT# 12: UPS			
Sr.#	Item	Description and Specifications	Quantity
1	UPS	<u>Output:</u> Max Configurable Power (Watts) 6.0kWatts / 6.0kVA Output Voltage Distortion Less than 2 % Output Frequency (sync to mains) 50/60 Hz +/- 3 Hz Sync to mains Other Output Voltages 220, 240 Load Crest Factor 3 : 1 Topology Double conversion online Waveform type Sine wave Bypass Internal bypass (automatic and manual) <u>Input</u> Input frequency 40 - 70 Hz Auto-sensing Input voltage range for main operations 100 - 275 Adjustable, 160 - 275V Other Input Voltages 220, 240 Batteries & Runtime Battery type Lead-acid battery Typical recharge time 1.5hour(s) Nominal Battery Voltage 192 V Replacement Battery APCRBC140 Expected Battery Life (years) 3 - 5 RBC Quantity 1 Battery Charge Power (Watts) 597 Watts Extendable Run Time 1 Extended Run Options	12

		APC-Smart-UPS-6kVA-230V-Rack-Mount-with-6-year-warranty-package Runtime View Runtime Graph View Runtime Chart Efficiency View Efficiency Graph <u>Communications & Management</u> Interface Port(s) RJ-45 10/100 Base-T, RJ-45 Serial, Smart-Slot, USB Control panel Multifunction LCD status and control console Audible Alarm Audible and visible alarms prioritized by severity Emergency Power Off (EPO) Yes Available SmartSlot™ Interface Quantity 1 Surge Protection and Filtering Surge energy rating 480Joules <u>Environmental</u> Operating Temperature 0 - 40 °C Operating Relative Humidity 0 - 95 (Non-condensing) % Operating Elevation 0 - 3048meters Storage Temperature -15 - 45 °C Storage Elevation 0 - 15240meters Audible noise at 1 meter from surface of unit 55.0dBA Online thermal dissipation 1300.0BTU/hr Protection Class IP20	
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LOT# 13: Glass ware			
Sr.#	Item	Description and Specifications	Quantity
1	Glass ware	Beakers (50ml, 100ml, 250ml, 500ml, 1000ml, 2000ml) Conical Flask (50ml, 100ml, 250ml, 500ml, 1000ml, 2000ml) Volumetric flask (25 ml, 50ml, 100ml, 250ml, 500ml, 1000ml) Graduated Cylinder (10ml, 50ml, 100ml, 250ml, 500ml, 1000ml, 2000ml) Separating funnel with pt Separating funnel with stopcock Cylinders with plastic base (10ml, 50ml, 100ml, 250ml, 500ml, 1000ml, 2000ml)	2 cartons each

		Glass Slide and cover slips Test tubes (10*100) Test tubes (12*100) Test tubes (18*150) Test tubes (12*75) Petri dish (100*20) Petri dish (90*15) Reagent bottles (100ml, 250ml, 500ml, 1000ml, 2000ml) Glass spreaders Spirit lamp Conical Tubes (10 ml, 15ml, 25ml, 50ml) Glass pipette (5ml, 10ml) Glass spreader (small size)	
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LOT# 14: Plastic ware

Sr.#	Item	Description and Specifications	Quantity
1	Plastic ware	Beakers (50ml, 100ml, 250ml, 500ml, 1000ml, 2000ml) Test tube Holder Plastic Cylinders (10ml, 50ml, 100ml, 250ml, 500ml, 1000ml, 2000ml) Test tubes stand (48 holes) Test tube rack (24 hole large) Test Tubes rack (24 hole small) Wire Gauze Spatula stainless steel medium Petri dish (100*20) Petri dish (90*15) Disposable syringe (10cc, 5cc, 3cc, 1cc) Desiccator (210 mm) Funnel stand Eppendorf Tube (1.5 ml tube with cap) Eppendorf Tube (2 ml tube with cap) White pipette tips (0.5-2 ul) Yellow pipette tips (2-200 ul) Blue pipette tips (1ml) Inoculating loops and needles Syringe filters Eppendorf tube racks Conical tubes (15ml, 50ml) Conical tubes rack (15ml, 50ml) PCR tubes PCR tubes racks Storage boxes (0.2ml, 2ml) Filtered tips (white, yellow, blue) Cryovials Cryovials boxes Spray bottles Plastic buckets (medium & large size) PPE sets Disposable Nitrile Lab Exam Gloves small, medium, and large size	2 cartons Each

		Parafilm roll Filter paper (90 mm) Filter paper (125mm) Filter paper (150 mm) Face mask Tissue sheets Aluminum foils Plastic wrap Scotch tape Paper tapes Autoclave tapes Labelling markers Data notebooks	
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LOT# 15: Ice Making Machine

Sr.#	Item	Description and Specifications	Quantity
1	Ice making machine	<ul style="list-style-type: none"> - Weight 270 lbs lbs - Dimensions 29 1/8" D x 38 1/8" W x 42" H in - Shipping Weight: 270 lbs - Electrical Specs: Single phase, 115v/60/1 Amperage: 13.8A, Max Fuse/HACR Breaker: 20 A - Plumbing Specs: 1/2" FPT Inlet, Minimum 1/4" Nominal ID Copper Water Tubing or Equivalent, 3/4" FPT Outlet, Minimum 3/4" Nominal ID Hard Pipe or Equivalent - Slim, 38"W wide profile - Produces flaked ice - Durable stainless steel exterior - Ice maker with built in storage. - Automatic system flush when bin control is activated - Gear motor protected from overload - R-404a refrigerant - Ambient temperature range: 45 – 100°F - Water temperature range: 45 – 90°F - Water pressure: 10 – 113psig - Voltage range: 104 – 127V - 13.8 amps (20 Amp Max fuse) - 5.05 kwh/100 lbs.@ 90/70 - Single phase, 115v/60/1 - ENERGY STAR Qualified 	02

LOT# 16: Incineration Chamber

Sr.#	Item	Description and Specifications	Quantity
1	Incineration Chamber	<ul style="list-style-type: none"> - Burn Rate** up to 25kg per hour - Dual HT Thermocouple Allow independent control of primary and secondary temperatures via the control panel. 	02

		<ul style="list-style-type: none"> - Primary Chamber Chamber designed for maximum air flow and circulation which in turn improves efficiency and total burn time. - Chimney Stack Stainless steel stack for longevity. Minimum 3m stack height required. Fitted with dispersion cap as standard. - Secondary Chamber Retains and re-burns the exhaust gases for minimum of 2 seconds at 850°C to meet EU guidelines. - 'Cool Touch' Cladding Steel cladding to reduce risk of infection and increase longevity of system. - Ash door All models now feature a 'floating' ash door design that is rigid and can be opened safely during operation. - Combustion Chamber Volume (m3) 0.13m3 - Metal Thickness 3mm (3mm SS) - Burn Rate** up to 25kg per hour - Operational Temperature 850°C - Average Ash Residue (%) 3% - Thermostatic Device(s) yes (x2) - Shipping Weight (kg) 652kg - Dimensions (l, w, h) 0.75m x 0.75m x 2.72mm - Gas Retention 0.5 seconds 	
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LOT# 17: Miscellaneous			
Sr.#	Item	Description and Specifications	Quantity
1	Mr. Frosty™ Freezing Container	-Freeze cells in tubes from 1 to 5mL using the Thermo Scientific™ Mr. Frosty™ Freezing Container. -The simple to use system is designed to achieve a rate of cooling very close to -1°C/minute, the optimal rate for cell preservation. -18 (1.0 to 2.0mL Tubes) (n=16) 12 (4.5 to 5.0mL Tubes) (n=4)	02

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, Or increase the quantities as per provision in KPPRA Rules.
2. Installation, commissioning and training of the faculty staff should be done, if require.
3. 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.
4. 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 confirm 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), as required in Form – E (Section 3).

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 three (03) years and additional two (02) years as Extended Warranty, 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 this 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

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:

Have you duly completed all the Returnable Bidding Forms?	
▪ Form A: Bid Submission Form	<input type="checkbox"/>
▪ Form B: Joint Venture/Consortium/ Association Information Form	<input type="checkbox"/>
▪ Form C: Bidder Information Form	<input type="checkbox"/>
▪ Form D: Qualification Form	<input type="checkbox"/>
▪ Form E: Bid Proposal Form	<input type="checkbox"/>
▪ Form F: Specifications Compliance Form	<input type="checkbox"/>
▪ Form G: Price Schedule Form	<input type="checkbox"/>
Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?	<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:	PAF: IAST-BMS-ITB-106-21		

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:	PAF: IAST-BMS-ITB-106-21		

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]

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

Legal name of Bidder	[Complete]
Legal address & Branch Offices	[Complete]
Year of registration	[Complete]
Bidder's Authorized Representative Information	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
Are you a PAF: IAST registered vendor?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, [insert PAF- IAST vendor number]
Countries of operation	[Complete]
No. of full-time employees	[Complete]
No. of Technical Staff	
Quality Assurance Certification (e.g. ISO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):	[Complete]
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):	[Complete]
Does your Company have a written Statement of its Environmental Policy? (If yes, provide a Copy)	[Complete]
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	[Complete]
Contact person that PAF: IAST may contact for requests for clarifications during Bid evaluation (Only Lead Bidder)	Name and Title: [Complete] Telephone numbers: [Complete] 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 Three (03) years, 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, if applicable.
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:	PAF: IAST-BMS-ITB-106-21		

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: Address of Client: 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 (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 Bid 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:	PAF: IAST-BMS-ITB-106-21		

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

Name of Personnel	[Insert]
Position	[Insert]
Nationality	[Insert]
Language proficiency	[Insert]
Education/Qualifications	<i>[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]</i>
	[Insert]
Professional certifications	<i>[Provide details of professional certifications relevant to the scope of goods and/or services]</i>
	✦ Name of institution: [Insert] ✦ Date of certification: [Insert]
Employment Record/Experience	<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>
	[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.

Signature of Personnel

Date (Day/Month/Year)

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 all LOTs except LOT # 9.

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 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:	PAF: IAST-BMS-ITB-106-21		

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.

Your response Compliance with specifications			
Goods and services to be Supplied (based on the Technical Specifications provided in Section 5a & Section 5b)	Comply (Yes/ No) (If No, indicate discrepancies)	Quoted Specifications	Type/ Model no. & Country of Origin
Required Items		Offered Items	

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:	PAF: IAST-BMS-ITB-106-21		

[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 (a)	Unit Price [in Rs.] (b)	GST [in Rs.] (c)	Total Price [in Rs.] $d=a*[b+c]$
LOT#1: Spectrophotometer				
Spectro UV-VIS Double Beam PC Scanning Spectrophotometer	02			
LOT# 02: Biomaterials and Tissue Engineering Equipment				
Automated Cell Counter	02			
Digital Colony Counter (Manual)	02			
Digital Colony Counter (Automatic)	02			
Liquid Nitrogen Storage System	05			
Liquid Nitrogen drawers	04			
LOT# 03: Freeze Dryers				
Freeze dryer (LAB)	02			
LOT# 04: Rotary Evaporator				
Rotary Evaporator with Chiller and other Accessories	02			
LOT# 05: Fluorescence-Activated Cell Analyzer and Sorting Machine(s)				
Fluorescence-Activated Cell Analyzer and Sorting Machine(s)	01 each			
LOT# 06: Micromanipulator				
Micromanipulator	01			
LOT# 07: IVF Equipment				
Anti-Vibration Table (Passive system)	02			
Tube warmer	02			
Heat Warmer for inverted microscope	01			
Lykos Laser System for Zona drilling or equivalent	01			
Time-Lapse Benchtop Incubator	01			

Sperm Counting Chamber	15			
Casa system for automatic semen analysis	01			
Liquid Nitrogen Tank	02			
Cryo Shipping container	03			
Digital Suction Pump	03			
IVF Real Time Lab Monitoring System	02			
Gas Analyzer	04			
Cryo gloves	10 pairs			
LOT# 08: Water Purification System				
water purification system with accessories	02			
Water purification system	02			
LOT# 09: Anatomy				
Human Skeleton Model on Hanging Stand	02			
Human Skeleton Model Leo with Ligaments	02			
3B MICROanatomy™ Human Bone Structure, 80 times enlarged	02			
Human Hand Skeleton Model with Ulna & Radius, Elastic Mounted String	04			
Foot & Ankle Skeleton, Elastic Mounted	04			
Didactic Flexible Human Spine Model with Femur Heads	04			
Beauchene Adult Human Skull Model, Bone Colored Version, 22 part	04			
3/4 Life-Size Dual Sex Human Muscle Model on Metal Stand,	02			
Classic Unisex Human Torso Model, 14 part	02			
Classic Unisex Human Torso Model, 16 part	02			
Human Skin Section Model, 70 times Full-Size	04			
Human Brain Model with Arteries, 9 part	04			
Head and Neck, 5 part	04			
Giant Functional-Center Brain, 4 part	04			
Human Nervous System Model, 1/2 Life-Size	02			
Human Eye Model, 5 times full-size, 8 part	02			
Human Eye Model, 5 times Full-Size, 12 part	02			
Human Ear Model, 3 times Life-Size, 4 part	04			
Dentition Development Model	02			

Giant Molar with Dental Cavities Human Tooth Model, 15 times Life-Size, 6 part	02			
Life-Size Human Heart Model, 5 parts	02			
Classic Human Heart Model with Bypass	02			
Classic Human Heart Model, 2 part	02			
Human Circulatory System Model	02			
Segmented Lung Model	02			
Lung Model with Larynx, 5 part	02			
Model of Pulmonary Lobule with Surrounding Blood Vessels, 130 times Magnified	02			
Human Larynx Model, 2 times Full-Size, 7 part	02			
Liver Model with Gall Bladder	02			
Liver Model with Gall Bladder, Pancreas & Duodenum	02			
Kidney with Adrenal Gland	02			
Male Urinary System Model, 3/4 Life-Size	02			
Male Pelvis Model in Median Section, 2 part	02			
Human Female Pelvic Skeleton Model	02			
Human Male Pelvis Skeleton Model	02			
Male Pelvis Model in Median Section, 2 part	02			
Ovaries & Fallopian Tubes Model with Stages of Fertilization, 2-times magnified	02			
Pregnancy Models Series, 5 Embryo & Fetus Models on a Base	02			
Intra-muscular Injection Pad	04			
Intramuscular injection simulator	02			
Intramuscular Injection Simulator	02			
Skin Suture Trainer	04			
Interactive Suture Trainer	04			
Suture Practice Arm	04			
Suture Practice Leg	04			
Anatomical Charts	02 each			
Tissue Slides	02 each			
LOT# 10: Sequencing Equipment				
Genetic Analyzer with accessories	01			

Next Generation Sequencer (NGS)	01			
LOT# 11: Consumables Cell Culture				
Plastic ware	2 cartons each			
Plastic bags sealer	12			
Paper measuring and cutting scale	12			
Automatic Shoe Machine	04			
LOT# 12: UPS				
UPS	12			
LOT# 13: Glass ware				
Glass ware	2 cartons each			
LOT# 14: Plastic ware				
Plastic ware	2 cartons each			
LOT# 15: Ice Making Machine				
Ice making machine	02			
LOT# 16: Incineration Chamber				
Incineration Chamber	02			
LOT# 17: Miscellaneous				
Mr. Frosty™ Freezing Container	02			

Extended Warranty Price (at discretion of PAF-IAST)

Please mention Annual Warranty Price for 4th and 5th year separately for the Lot Bid is submitted.

Quoted Items in compliance to the Technical Specifications as referred in Section – 5a and Section – 5b	4 th year cost	5 th year cost
LOT#1: Spectrophotometer		
Spectro UV-VIS Double Beam PC Scanning Spectrophotometer		
LOT# 02: Biomaterials and Tissue Engineering Equipment		
Automated Cell Counter		
Digital Colony Counter (Manual)		
Digital Colony Counter (Automatic)		
Liquid Nitrogen Storage System		
Liquid Nitrogen drawers		
LOT# 03: Freeze Dryers		

Freeze dryer (LAB)		
LOT# 04: Rotary Evaporator		
Rotary Evaporator with Chiller and other Accessories		
LOT# 05: Fluorescence-Activated Cell Analyzer and Sorting Machine(s)		
Fluorescence-Activated Cell Analyzer and Sorting Machine(s)		
LOT# 06: Micromanipulator and table		
Micromanipulator		
LOT# 07: IVF Equipment		
Anti-Vibration Table (Passive system)		
Tube warmer		
Heat Warmer for inverted microscope		
Lykos Laser System for Zona drilling or equivalent		
Time-Lapse Benchtop Incubator		
Sperm Counting Chamber		
Casa system for automatic semen analysis		
Liquid Nitrogen Tank		
Cryo Shipping container		
Digital Suction Pump		
IVF Real Time Lab Monitoring System		
Gas Analyzer		
Cryo gloves		
LOT# 08: Water Purification System		
water purification system with accessories		
Water purification system		
LOT# 09: Anatomy		
Human Skeleton Model on Hanging Stand		
Human Skeleton Model Leo with Ligaments		
3B MICROanatomy™ Human Bone Structure, 80 times enlarged		
Human Hand Skeleton Model with Ulna & Radius, Elastic Mounted String		
Foot & Ankle Skeleton, Elastic Mounted		
Didactic Flexible Human Spine Model with Femur Heads		
Beauchene Adult Human Skull Model, Bone Colored Version, 22 part		
3/4 Life-Size Dual Sex Human Muscle Model on Metal Stand,		

Classic Unisex Human Torso Model, 14 part		
Classic Unisex Human Torso Model, 16 part		
Human Skin Section Model, 70 times Full-Size		
Human Brain Model with Arteries, 9 part		
Head and Neck, 5 part		
Giant Functional-Center Brain, 4 part		
Human Nervous System Model, 1/2 Life-Size		
Human Eye Model, 5 times full-size, 8 part		
Human Eye Model, 5 times Full-Size, 12 part		
Human Ear Model, 3 times Life-Size, 4 part		
Dentition Development Model		
Giant Molar with Dental Cavities Human Tooth Model, 15 times Life-Size, 6 part		
Life-Size Human Heart Model, 5 parts		
Classic Human Heart Model with Bypass		
Classic Human Heart Model, 2 part		
Human Circulatory System Model		
Segmented Lung Model		
Lung Model with Larynx, 5 part		
Model of Pulmonary Lobule with Surrounding Blood Vessels, 130 times Magnified		
Human Larynx Model, 2 times Full-Size, 7 part		
Liver Model with Gall Bladder		
Liver Model with Gall Bladder, Pancreas & Duodenum		
Kidney with Adrenal Gland		
Male Urinary System Model, 3/4 Life-Size		
Male Pelvis Model in Median Section, 2 part		
Human Female Pelvic Skeleton Model		
Human Male Pelvis Skeleton Model		
Male Pelvis Model in Median Section, 2 part		
Ovaries & Fallopian Tubes Model with Stages of Fertilization, 2-times magnified		
Pregnancy Models Series, 5 Embryo & Fetus Models on a Base		

Intra-muscular Injection Pad		
Intramuscular injection simulator		
Intramuscular Injection Simulator		
Skin Suture Trainer		
Interactive Suture Trainer		
Suture Practice Arm		
Suture Practice Leg		
Anatomical Charts		
Tissue Slides		
LOT# 10: Sequencing Equipment		
Genetic Analyzer with accessories		
Next Generation Sequencer (NGS)		
LOT# 11: Consumables Cell Culture		
Plastic ware		
Plastic bags sealer		
Paper measuring and cutting scale		
Automatic Shoe Machine		
LOT# 12: UPS		
UPS		
LOT# 13: Plastic Ware		
Glass ware		
LOT# 14: Plastic Ware		
Plastic ware		
LOT# 15: Ice Making Machine		
Ice making machine		
LOT# 16: Incineration Chamber		
Incineration Chamber		
LOT# 17: Miscellaneous		
Mr. Frosty™ Freezing Container		

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 are 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 disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to 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 times 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>