

# PROJECT MANAGEMENT UNIT HIGHER EDUCATION DEPARTMENT KHYBER PAKHTUNKHWA

# STANDARD BIDDING DOCUMENT (SBD) for "STRENGTHENING OF BS PROGRAM IN NMDS - SCIENCE LAB DEVELOPMENT"

Submission of Bids: Friday the March 21, 2025 @ 12:00 noon Opening of Bids: Friday the March 21, 2025 @ 12:30 pm

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## **Section 1. Letter of Invitation**

These Bid Solicitation Documents have been prepared for use by the PMU HED Department through National Competitive Bidding (NCB) Khyber Pakhtunkhwa Procurement of Goods, Works & Services Rules 2014 Provisions, which are intended to be used and will remain unchanged are in Part-One, these includes Instructions to Bidders (ITB) and General Conditions of Contract (GCC).

Project Management Unit, Higher Education Department is committed to strengthen BS program in the colleges of the merged districts of Khyber Pakhtunkhwa by providing lab equipments, machinery, apparatus and other allied items.

The bidder must be registered with FBR for Tax purposes; possess Manufacturer's Authorize distributor / partner with authorization from Manufacturer/ Principal Authorization Letter (MAL) specific for this tender only from manufacturer, 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 PMU-HED-KPK.

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, technical specifications, functional requirements and other related information, can be obtained against a written request on company's letterhead, from PMU Higher Education Department of KPK, Pakistan. Cost of the document is Rs. 5000/-Non-refundable (Stationery charges). Tender document can also be downloaded from KPPRA website free of cost, however, interested bidders will be required to submit the Tender Fee in shape of Cash, Demand draft/Pay Order of Rs. 5000/-in the name of The Director PMU-HED KPK, along with the Bid, 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 in the shape of CDR, in accordance with the instructions in this tender document. Bid Proposal(s) must reach PMU-HED Peshawar by Friday the March 21, 2025, by 12:00 hrs. Any late Bid(s) shall not be accepted and returned unopened. Accepted Bids will be opened on the same day at 12:30 hrs, in presence of bidders who chose to attend. In case of sudden holiday on bid opening day, bids will be opened on next working day. The Tender shall be executed in accordance with KPPRA Rule 6 (2)(b) "Single Stage, Two Envelope Procedure".

This advertisement is also available on KPPRA websites <u>https://</u> www.kppra.org.pk

Director, Project Management Unit, Higher Education Department of KPK-Pakistan

# Section 2. Instruction to Bidders (ITB)

A. GENERAL TERMS		
1. Introduction	1.1	Bidders shall adhere to all the requirements of this ITB, including any amendments made in writing by PMU-HED. 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.
	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 PMU-HED. This office is under no obligation to award a contract to any Bidder as a result of this ITB.
	1.3	PMU-HED reserves the right to cancel the procurement process at any stage without any liability of any kind for PMU-HED, upon notice to the bidders or publication of cancellation notice on HED website.
2. Fraud & Corruption, Gifts and Hospitality	2.1	PMU-HED strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of PMU- HED vendors and requires all bidders/vendors observe the highest standard of ethics during the procurement process and contract implementation.
	2.2	Bidders/vendors shall not offer gifts or hospitality of any kind to PMU-HED staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or invitations to extravagant lunches or dinners.
	2.3 (a) (b)	In pursuance of this policy, PMU-HED: Shall reject a bid if it determines that the bidder is or has been engaged in any corrupt or fraudulent practices in competing for the tender in question; Shall declare a bidder ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the bidder is or has been engaged in any corrupt or fraudulent practices in competing for, or in executing any contract; or counseling or canvassing staff or elected representatives; or engaging in collusion with other bidders.
3. Eligibility	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 PMU-HED whether they are subject to any sanction or temporary suspension imposed by these organizations.
	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 PMU-HED.
4. General Terms	4.1	The Bidder should be registered with Sales Tax and Income Tax Department.

4.2	The Bidder should have not been blacklisted by any
	Government/ semi Government organization.

4.3 There should be no litigation against the bidder/ firm.

B. PREPARATION OF BIDS		
5. General Considerations	5.1 In preparing the Bid, the Bidder is expected to examine the ITB in detail. Material deficiencies in providing the information requested in the ITB may result in rejection of the Bid.	
	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 procurement office, PMU-HED accordingly.	
6. Cost of Preparation of Bid	5.1 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. PMU-HED 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 PMU-HED, shall be written in the language(s) specified in the BDS.	
8. Documents Comprising the Bid	8.1 The Bid shall comprise of the following documents and related forms of which details are provided in the BDS. All pages of the Bid shall be signed, stamped	
	<ul> <li>and properly paginated.</li> <li>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.</li> <li>b) Documents Establishing the Eligibility and Qualifications of the Bidder;</li> <li>c) Bid covering Technical Specifications in detail, and covering Price Schedule;</li> <li>d) Bid Security, if required by BDS;</li> <li>e) Any attachments and/ or appendices to the Bid.</li> </ul>	
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. To award a contract to a Bidder, its qualifications must be documented to PMU-HED's satisfaction.	
10. Technical Bid Format and Content	<ul> <li>The Bidder is required to submit a Bid using the Standard Forms</li> <li>and templates provided in Section 6 of the ITB.</li> </ul>	
	<ol> <li>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.</li> </ol>	

	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.
	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 (3) years from date of delivery, or as otherwise specified in this ITB.
11. Price Schedule	11. 1	The Price Schedule shall be prepared using the Forms provided in Section 6 of the ITB and taking into consideration the requirements in the ITB.
	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.
12. Bid Security	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.
	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.
	12. 3	If the Bid Security amount or its validity period is found to be less than what is required, PMU-HED shall reject the Bid.
	12. 4	In the event an electronic submission is not 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 Registered courier as per the instructions in BDS.
	12. 5	The Bid Security will be forfeited by PMU-HED, and the Bid rejected, in the event of any, or combination, of the following conditions:
		<ul> <li>a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or;</li> </ul>
		b) In the event the successful Bidder fails:
		i. to sign the Contract after $PMU\operatorname{-HED}$ has issued an award; or
		ii. to furnish the Performance Security, insurances, or other documents that PMU-HED may require as a condition precedent to the effectivity of the contract that may be awarded to the Bidder.

13. Currencies	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:
		a) PMU-HED 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 PMU-HED selects a Bid for award that is quoted in a currency different from the preferred currency in the BDS, PMU-HED shall reserve the right to award the contract in the currency of PMU-HED's preference, using the conversion method specified above.
14. Joint Venture, Consortium or Association	14. 1	If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the JV, Consortium or Association jointly and severally, which shall be evidenced by an intent letter or an Agreement among the legal entities duly notarized, and submitted with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between PMU-HED and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture.
	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 PMU-HED/Procurement Committee.
	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.
	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. If allowed in this Tender document/ RFP, all entities that comprise the JV, Consortium or Association shall be cumulatively subject to the eligibility and technical
		qualification assessment by PMU-HED as defined in Section 4: Evaluation Criteria.
	14. 5	A JV, Consortium or Association in presenting its track record and experience should clearly differentiate between:
		a) Those that were undertaken together by the JV, Consortium or Association; and
		b) Those that were undertaken by the individual entities of the JV, Consortium or Association.
	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.

15. Only One Bid	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.
	15. 2	Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:
		a) they have at least one controlling partner, director or shareholder in common; or
		<li>b) any one of them receive or have received any direct or indirect subsidy from the other/s; or</li>
		c) they have the same legal representative for purposes of this ITB; or
		d) they are subcontractors to each other's Bid, or a subcontractor to one Bid also submits another Bid under its name as lead Bidder; or some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this ITB process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.
16. Bid Validity Period	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 PMU-HED and rendered non-responsive.
	16. 2	During the Bid validity period, the Bidder shall maintain its original Bid without any change, including the availability of the Key Personnel.
17. Extension of Bid Validity Period	17. 1	In exceptional circumstances, prior to the expiration of the Bid validity period, PMU-HED 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.
	17. 2	If the Bidder agrees to extend the validity of its Bid, it shall be done without any change to the original Bid.
	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.
18. Clarification on ITB (from the Bidders)	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 PMU-HED staff member, PMU-HED shall have no obligation to respond or confirm that the query was officially received.
	18. 2	<b>PMU-HED</b> will provide the responses to clarifications through the method specified in the BDS.
	18. 3	PMU-HED 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 PMU-HED to extend the submission date of the Bids, unless PMU-HED deems that such an extension is justified and necessary.

19. Amendment in ITB	19. 1 19. 2	At any time prior to the deadline of Bid submission, PMU-HED 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. If the amendment is substantial, FPMU-HED may extend the Deadline for submission of Bid to give the Bidders reasonable time to incorporate the amendment into their Bids.
20. Alternative Bids	20. 1 20. 2	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, PMU-HED reserves the right to award a contract based on an alternative Bid. If multiple/ alternative bids are being submitted, they must be clearly marked as "Main Bid" and "Alternative Bid"
21. Pre-Bid Conference	21. 1	When appropriate, a pre-bid conference may be conducted at the date, time and location specified in the BDS. All Bidders are encouraged to attend. Nonattendance, however, shall not result in disqualification of an interested Bidder. Minutes of the Bidder's conference will be disseminated on the procurement website and/ or shared by email as specified in the BDS. No verbal statement made during the conference shall modify the terms and conditions of the ITB, unless specifically incorporated in the Minutes of the Bidder's Conference or issued/ posted as an amendment to ITB.
C. SUBMISSION AND OPENING OF B . IDS		OF BIDS
22. Bid Proposal Submission	22. 1	The Bidder shall submit a duly signed and numbered all pages of the complete Bid in an Envelope sealed and marked as per ITB 22.6, and in accordance with <b>KPPRA Rule 6 (2)(b)</b> .
	22. 2	The Outer Envelope should contain Two (02) separate sealed envelopes, one of which comprising the Forms (A – F) and <b>supporting documents</b> in accordance with requirements in the BDS, shall be marked as <b>"Technical Proposal"</b> . Whereas, the other envelope containing the Form G: Price Schedule Form shall be marked as <b>"Financial Proposal"</b> .
	22. 3	The Bid Security as referred in BDS must be placed in the <b>"Financial Proposal"</b> but in a duly sealed envelope and marked as <b>"Bid Security"</b> . However, an affidavit be placed in <b>"Technical Proposal"</b> confirming that the "Bid Security" is enclosed in "Financial Proposal". Bid security envelop will be opened with financial proposal of Technically qualified bidders.
	22.	Bid can be delivered by courier/ hand delivered as specified in the

	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.
	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.
	22. 7	Hard copy submission by courier allowed or as specified in the BDS shall be governed as follows:
		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.
		(b) The Bid Proposals must be sealed and submitted in an envelope, which shall:
		<ul> <li>i. Bear the name of the Bidder.</li> <li>ii. Be addressed to PMU-HED as specified in the BDS; and</li> <li>iii. Bear a warning not to open before the time and date for</li> <li>Bid opening as specified in the BDS.</li> <li>If the envelope with the Bid is not sealed and marked as required,</li> <li>PMU-HED shall assume no responsibility for the misplacement,</li> <li>loss, or premature opening of the Bid.</li> </ul>
23. Deadline for Submission of Bids and Late Bids	23. 1	Complete Bids must be received by PMU-HED in the manner, and no later than the date and time, specified in the BDS. PMU-HED shall only recognize the actual date and time that the bid was received by PMU-HED.
	23. 2	<b>PMU-HED</b> shall not consider any Bid that is received after the deadline for the submission of Bids.
24. Withdrawal, Substitution, and	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.
MOULICATION OF BIOS	24. 2	A bidder may withdraw, substitute or modify its Bid by sending a written notice to PMU-HED, 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"
	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.
25. Bid Opening	25. 1	The Procurement Committee of PMU-HED will open the Bid in the presence of Bidders' representative(s) who choose to attend.

25. 2	The Bidders' names, modifications, withdrawals, the condition of the envelope labels/ seals, the number of folders/ files and all other such other details as PMU-HED may consider appropriate, will be announced at the opening. No Bid shall be rejected at the opening stage, except for late submissions, in which case, the Bid shall be returned unopened to the Bidders.
25.3	In case of public holiday on bid opening day, bids will be opened on next working day.

D. EVALUATION	D. EVALUATION OF BIDS		
26. Confidentiality	<ol> <li>Information relating to the examination, evaluation, and</li> <li>comparison of Bids, and the recommendation of contract award,</li> <li>shall not be disclosed to Bidders, even after publication of the contract award.</li> </ol>		
	<ul> <li>Any effort by a Bidder to influence PMU-HED in the examination,</li> <li>evaluation and comparison of the Bids or contract award decisions may, at PMU-HED's decision, result in the rejection of its Bid and may subsequently be subject to consequences.</li> </ul>		
27. Preliminary Examination	27. PMU-HED shall examine the Bids to determine whether they are 1 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. PMU-HED reserves the right to reject any Bid at this stage.		
2 8 . Evaluatio n of Eligibility a n d Technical Qualification	<ul> <li>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.</li> <li>28.2 In general terms, Bidders that meet the following criteria may be considered qualified: <ul> <li>a) They are not included in the list of blacklisted or barred companies published on KPPRA website, federal or any provincial government department;</li> <li>b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments,</li> <li>c) They have the necessary experience, technical expertise, production capacity, quality certifications, quality assurance procedures and other resources applicable to the supply of goods and/ or services required;</li> <li>d) They are capable to comply fully with the General Terms and Conditions of</li> </ul> </li> <li>Contract; <ul> <li>e) They do not have a consistent history of court/ arbitral award decisions against the Bidder; and</li> <li>f) They have a record of timely and satisfactory performance with their clients.</li> </ul> </li> </ul>		

29. Evaluation of Bid Proposals	29. 1	The evaluation team shall review and evaluate the Bids based on 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, PMU-HED may invite technically responsive bidders for a presentation related to their Bids. The conditions for the presentation shall be provided in the bid document where required.
30. Due diligence	30. 1	PMU-HED 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:
		<ul> <li>Verification of accuracy, correctness and authenticity of information provided by the Bidder;</li> </ul>
		<ul> <li>b) Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team;</li> </ul>
		<ul> <li>Inquiry and reference checking with Government entities with jurisdiction on the Bidder, or with previous clients, or any other entity that may have done business with the Bidder;</li> </ul>
		<ul> <li>d) Inquiry and reference checking with previous clients on the performance on on-going or completed contracts, including physical inspections of previous works, as deemed necessary;</li> <li>e) Physical inspection of the Bidder's offices, branches or other places where business transpires, with or without notice to the Bidder;</li> </ul>
		f) Other means that PMU-HED may deem appropriate, at any stage within the selection process, prior to declaring the Bidder as Qualified.
31. Clarification of Bids	31. 1	To assist in the examination, evaluation and comparison of Bids, PMU-HED may, at its discretion, request any Bidder for a clarification of its Bid.
	31. 2	<b>PMU-HED</b> 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 <b>PMU-HED</b> in the evaluation of the Bids in accordance with the ITB.
	31. 3	Any unsolicited clarification submitted by a Bidder in respect to its Bid, which is not a response to a request by PMU-HED, may not be considered during the review and evaluation of the Bids.
32. Responsiveness of Bid	32. 1	<b>PMU-HED</b> 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.
	32. 2	If a bid is not substantially responsive, it may be rejected by PMU-HED and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.

33. Right to Accept, Reject, Any or All Bids	<ul><li>33.</li><li>1</li><li>33.</li><li>33.</li></ul>	<ul><li>PMU-HED reserves the right to accept or reject any proposal in response to the</li><li>ITB, to render any or all 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.</li><li>PMU-HED shall not be obliged to award the contract to the lowest prior before and</li></ul>
	2	priced offer only.
34. Nonconformities, Reparable Errors and Omissions	34. 1	Provided that a Bid is substantially responsive, PMU-HED may waive any nonconformities or omissions in the Bid that, in the opinion of PMU-HED, do not constitute a material deviation.
	34. 2	<b>PMU-HED</b> 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.
	34. 3	For the Price Schedule that are submitted, PMU-HED shall check and correct arithmetical errors as follows:
		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 PMU-HED 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.
	34.4	If the Bidder does not accept the correction of errors made by PMU-HED, its Bid shall be rejected.
35. Bidder Grievance	35.1	PMU-HED's grievance readdress procedure provides an opportunity for appeal to those bidders or firms not awarded a contract through a competitive procurement process. In the event that a Bidder believes that it was not treated fairly, the Bidder may lodge a complaint to the PMU-HED's Grievance Readdress Committee.

E. AWARD OF C	E. AWARD OF CONTRACT		
36. Evaluation	<ul> <li>36.1 PMU-HED will conduct the evaluation solely based on response to this tender received from the firms.</li> <li>36.2 Evaluation shall be undertaken in the following steps: <ul> <li>a) Preliminary Examination including Technical Specifications and other compliances</li> <li>b) Arithmetical check and ranking of bidders who passed preliminary examination by price.</li> <li>c) Evaluation of prices</li> </ul> </li> <li>36.3 Price comparison shall be based on the landed price, including taxes, duties, <ul> <li>transportation, insurance and the total cost of ownership (including spare parts, <ul> <li>consumption, installation, commissioning, training, special packaging, etc., where applicable)</li> </ul> </li> </ul></li></ul>		
37. Integrity Pact	37.1 Bidders will also be required to submit a signed Integrity Pact on a stamp paper of appropriate value as part of their response. The text of Integrity Pact is available at Annex – I.		
38. Award Criteria	<ol> <li>Prior to expiration of the period of Proposal validity, PMU-HED 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.</li> <li>PMU-HED 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.</li> <li>In case of tie in Financial Bid Value, the Contract will be awarded to the bidder having closest match to the Technical Specifications.</li> </ol>		
39. Contract Signing	<ul> <li>39. After the approval of any Work Award, a Contract Agreement on the stamp paper of appropriate value, shall be executed by PMU- HED with Selected Bidder (i.e. Contractor) within 07 days from the date of issuance of LoI (Letter of Intent)/Work Order).</li> <li>39. Failure to signing of Contract Agreement by the selected Bidder/ Firm with PMU-HED 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, PMU-HED may award the Contract to the Second highest rated or call for new Proposals.</li> </ul>		
40. Right to V a r y quantity at the Time of Award	40.1 At the time of award of Contract, PMU-HED reserves the right to vary the quantity of goods and/or services, without any change in the unit price or other terms and conditions.		
41. Sample draft Contract	41.1 A sample draft Contract to be signed, containing applicable General Terms and Conditions can be found at Annex – II.		

42. Performance Security	42.1 A performance security, if required in the BDS, shall be provided in the amount specified in BDS, well prior to the Contract signing by both parties. Where a performance security is required, the receipt of the performance security by PMU-HED shall be a condition for rendering the contract effective.
43. Bank/ Insurance Guarantee for Advanced Payment	43.1 Payment will be released as per terms and conditions of the contract.
44. Liquidated Damages	<ul> <li>PMU-HED shall apply Liquidated Damages for the damages and/or risks caused to PMU-HED resulting from the Contractor's delays or breach of its obligations as per Contract.</li> <li>a) In case of delay, the Procurement Committee, PMU-HED 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.</li> <li>b) If the Contractor fails to complete work as per PMU-HED requirement, the Project Director, PMU-HED reserves the right to reject it altogether or impose a penalty not exceeding 10% of the total amount of the Contract.</li> <li>c) If the Contractor fails to provide supplies/services as per PMU-HED requirements, PMU-HED may forfeit his earnest money as well as Performance Security, and the work will be done at the risk and cost of Contractor.</li> <li>d) In case of any dispute, matter will be referred to Director, PMU-HED whose decision will be binding on both the parties.</li> </ul>
45. Force Majeure	45. "Force Majeure" means an event which is beyond the reasonable 1 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 Director, PMU-HED whose decision will be final.
46. Delivery of Goods	<ul> <li>46. Contractor will be required to deliver the goods as per the</li> <li>1 Delivery Schedule referred in BDS without claiming any additional cost to the PMU-HED at the designated site(s) and in quantities as referred in the Contract.</li> </ul>
47. Payment Provisions	<ul> <li>47.1 Payment will be made only upon PMU-HED 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 PMU-HED. Payment will be affected by bank transfer in the currency of the contract.</li> <li>47.2 The Contractor shall provide all pecessary supporting documents.</li> </ul>
	along with GST invoice, delivery challan and any other relevant documents as required by the PMU-HED.

# **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.

BD S No.	Ref. to Section. 2	Data	Specific Instructions / Requirements
1.		Background	Project Management Unit, Higher Education Department is committed to strengthen BS program in the colleges of the merged districts of Khyber Pakhtunkhwa by providing lab equipments, machinery, apparatus and other allied items.
2.		Objective	The main objective of this Tender is to strengthen BS program in the colleges of merged districts by providing science lab equipment, machinery, apparatus and other allied items for science subjects i.e. Botany, Zoology, Physics, Chemistry, Computer Science etc.
3.		Scope of Work	Strengthening of BS Program in NMDs - Science Lab Development The required items as referred in Section - 5 have been sought as strengthening of BS Program by developing science labs. Science lab equipment for Botany, Zoology, Chemistry, Physics & Computer Science to be procured. Successful bidders are required to deliver items as per PO to the colleges in merged districts. Delivery and payment schedule to be decided at the time of contract.
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)	
7.	20	Alternative Bids	Not Allowed.
8.	21	Pre-Bid conference	Any queries can be addressed 3 days prior to the date of submission of bids.
9.	16	Bid Validity Period	<b>90 days</b> (extendable as per the willingness of bidder)

10.	13	Bid Security/ Earnest Money (Refundable)	Required in the amount of: 2% of the Bid Value. In case of options, earnest money shall be based on the maximum quoted price amongst the options. Acceptable Forms of Bid Security: 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 <b>Director, PMU-HED</b>
11.	42	Liquidated Damages	Will be imposed as follows: Percentage of contract price per day of delay: as referred in Draft Contract Sample in Annexure – II.
12.	40	Performance Security	Within one week of issuance of LoI/Purchase Order and well prior to the signing of Contract, as <b>5% of</b> <b>the Contract value</b> for the duration of Warranty period referred in RFP.
13.	12	Currency of Bid	Pakistani Rupees (PKR)
14.	31	Deadline for submitting requests for clarifications/ questions	3 days before the submission deadline
15.	31	Contact Details for submitting clarifications/ questions	Focal Person in PMU: Director Project Management Unit Higher Education Department of Khyber Pakhtunkhwa.
16.	18, 19, and 21	Manner of Disseminating Supplemental Information to the ITB and responses/ clarifications to queries	Direct communication to prospective Bidders by email and/ or Posting on the PMU-HED
17.	23	Deadline for Submission	Friday, March 21, 2025 on or before 12:00 PM (PST)
18.	22	Number of Set(s) of Bid	<ul> <li>Technical Proposal(s) <ul> <li>One (01) Original</li> <li>One (01) Copy</li> <li>Soft copy of Technical Proposal in a USB Flash Drive</li> </ul> </li> <li>Financial Proposal(s) <ul> <li>One (01) Original</li> </ul> </li> </ul>
19.	22	Allowable Manner of Submitting Bids	⊠ Courier/ Hand Delivery only
20.	22	Bid Submission Address	<ul> <li>By Courier/ Hand Delivery</li> <li>Convener Procurement Committee,</li> <li>PMU-HED, Peshawar</li> </ul>
21.	22	Electronic submission (email) requirements	Not Allowed

22.	25	Date, time and venue for the opening of bid	Date and Time: Friday 21st Mar, 2024 at 12:30 PM Venue: Conference Room, HED, Peshawar		
23.	27, 36	Evaluation Method	Eligible and qualified bids meeting the PMU-HED requirements and technically responsive as stipulated in this ITB		
24.		Evaluation Method for the Award of Contract	QCBS System techr	ically responsiv	e.
25.		Expected date for commencement of Contract	April 2025	April 2025	
26.		Maximum expected duration of Contract	03 Months		
27.	35	PMU-HED will award the contract to:	One Bidder Only		
28.	39	Type and Contract Terms and Conditions that will apply	PMU-HED General Terms and Conditions for Contracts for Goods and/ or Services as per Sample at Annex – II.		
29.	46	Delivery configuration			
		and Testing / Training.	Delivery	Configuratio n	Testing/ Training
			02-06 weeks	2-4 weeks	2 weeks
30.	30. 47 Payment Schedule		Payment to the succ scheduled in Contra rules.	essful bidders v ct Agreement a	vill be s per the KPPRA
			Note: All payments a security against the Payment against the PMU-HED at its sole provisioning of respective Items to be delivered merged districts of k	are subject to 10 warranty and su Additional Serv discretion) shall ective additional d on site at colle hyber Pakhtunk	0% deduction as pport services. ices (if opted by be paid after service(s). ges of newly hwa

#### **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 **both companies should meet the minimum criteria Technical qualification will be evaluated on Score basis**. Scores against each of the parameters in Section I, II & III will be according to documents provided by the Bidder, whereas scores in Section IV will be awarded by Technical Committee in response to Bidder's presentation.

	ELIGIBILITY				
S. #	Subject	Criteria	Reference Returnable Form(s)		
1.	Bidder's Status	Participating as Individual Company JV/ Consortium	Form B: JV/ Consortium Information Form		
2.	Legal Status	Bidder is a legally registered entity in Pakistan. Bidder (Lead Bidder) is/ are also registered with FBR for Income Tax and Sales Tax. Bidder/ JV partner(s) must be Active Taxpayers and Listed.	Form C: Bidder Information Form		
3.	Location of Offices	Bidder (Lead Bidder) must have office in Peshawar and should be operational from at least last Three (03) years.	Form C: Bidder Information Form		
4.	Quoted Product Strength and Rating	Quoted product should have large implementation footprints globally and particularly in Educational Sector.	Form C: Bidder Information Form		
5.	Company in Operation	Bidder (Lead Bidder) is in operation for at least Three (03) years.	Form C: Bidder Information Form		
6.	Financial Strength	Average annual turnover over last 3 years <b>Rs. 50 million as per the published Audited Report.</b> <i>(For JV/ Consortium/ Association, all Parties cumulatively</i> <i>should meet requirement).</i>	Form D: Qualification Form		

7.	Relevant Experienc e	<ul> <li>Min. No. of Projects successfully Completed or In-hand, of similar nature/ value/ complexity in last 3 years.</li> <li>At least (03) projects involving the subject project within Pakistan</li> <li>(For JV/Consortium/ Association, all Parties cumulatively should meet requirement).</li> </ul>	Form D: Qualification Form Form E: Technical Proposal 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 must be provided.	Form A: Bid Submission Form
9.	Bankrupt cy	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
10.	Technical Specificat ion Complian ce	Quoted Solution should have minimum <b>100%</b> <b>Compliance</b> towards required features and functionalities as referred in Section 5 from any manufacturer with their license to do business in Pakistan. Verifiable documents need to be provided in Technical bid.	Form F: Specifications Compliance Form
11.	Certific ate and License s	<ul> <li>Bidder(s) related: <ol> <li>Verifiable Certificate of Registration of the business</li> <li>Verifiable Certificate of Registration with FBR for both Income Tax and Sales Tax</li> <li>KPRA Registration</li> <li>Manufacturer Authorization Letter, only from OEM.</li> <li>Verifiable Quality Certifications of ISO 9001:2015 (Quality Management System), ISO 45001:2018 certificate. (Occupational Health &amp; Safety Management System), ISO 14001:2015 certificate (Environmental Management System)</li> <li>Successful Implementation/ Completion Letters or Emails or Purchase/ Work Order(s)/ Agreement from the institutions/ organizations where the similars projects, was or being implemented.</li> <li>Supporting photos/ snapshots, data sheets, documents depicting usage scenarios of the quoted solution.</li> </ol></li></ul>	Form C: Bidder Information Form

	QUALIFICATION					
S. #	Attribute	Description	Ma x. Sco re	Criteria	Returnable Form(s)	
	Section – I: Gen Profile	eral Corporate	30			
			8	10+ employees		
12.	Bidder's Human Resource Strength	Number of full-time employees (documentary proof required)	6	5 – 10 employees	Form C: Bidder Information Form	
			4	2 – 4 employees		
			15	Minimum 50 Millian Financial Strength		
13.	Financial Standing	Annual Turnover over last 3 years	10	30 Millian Financial Strength	Form D: Qualification Form	
			5	15 Million Financial Strength		
	Audit Reports	Audit reports of last three years by QCR rated firms	7	3 years audit reports	<b>- - - -</b>	
14			4	2 years audit reports	Form D: Qualification Form	
			2	1 year audit report		
	Section – II: Business Profile		30			
		Project(s)/ Supply of	15	Min. No. of Projects 3	_	
15	Relevant	and complexity	10	Min. No. of Projects 2	Form D: Qualification	
	Experience	(documentary proof required)	5	Min. No. of Projects 1	Form	
		Total Tax paid by the bidder i.e. income	15	10 million & above		
16	Tax Returns	tax, sales tax & other tax (if any) during the last 3 years (tax returns to be annexed)	10	7 million & above	Form D: Qualification	
			5	4 million & above		
	Section – III: Product Strength(s) and Compliance with Functional & Technical Specifications		40			

17	Featured in Third Party Evaluation Report	Quoted product is ranked or rated in Gartner/ Forester/ IDC/ GetApp/ International- University/Academia Linkages	20	Listed in the most recently published Third Party Evaluation Report under Leaders Category	Form E: Project Proposal Form
18.	Compliance to Technical & Functional Specifications	Features offered Out- of-Box by the Quoted product corresponding to Technical & Functional requirements of each component(s) as stipulated in Section 5.	20	No. of parameters complied by Bid in consideration/ Total No. of parameters * Max. Score	Form F: Project Proposal Form
Gra	nd Total		100		
	Technical Evaluation	Bids shall be evaluate Criteria. Bidders meet <b>percent</b> in technical Qualified Bidders for t	ed on ing the qualif the ne	both Eligibility and Technica e Eligibility Criteria and able ication shall be declared a xt step, i.e. Opening of Fina	l Qualification to secure 65 as Technically ancial 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 total cost of ownership over 5 years, including Hardware and its license cost, solution installation and configuration cost, mandatory and optional Integration costs, and training costs. Comparison with budget/ internal estimates. Tender will be awarded on least-cost basis to highest ranked bidder.			
	Project Award Formula	QCBS will be opted with following formulation. Total Score = (Ts×Tw)+(Fs×Fw) • T_s = Technical Score of the bidder (on a scale, e.g., 0 to 100) • T_w = Weight of the technical score (in this case, 0.70) • F_s = Financial Score of the bidder (on a scale, e.g., 0 to 100) • F_w = Weight of the financial score (in this case, 0.30) Financial Scoring: Fs=(L/P)×100 Where: • L is the lowest financial bid. • P is the price of the bid being evaluated. Example Calculation: Suppose a bidder has a technical score of 85 and a financial score of 90. • Technical Score Contribution: 85×0.70=59.585×0.70=59.5 • Financial Score Contribution: 90×0.30=2790×0.30=27 • Total Score: 59.5+27=86.559.5+27=86.5 The bidder's total score would be 86.5 out of 100. This process is repeated for all bidders, and the one with the highest total score will			

# Section 5a: Technical Specifications of the Required Goods

Computer Science		
	<b>Operating system</b> Windows 11	
	Home <b>Processor</b>	
	Intel <sup>®</sup> Core <sup>™</sup> i7-12700 (up to 4.9 GHz with Intel <sup>®</sup> Turbo Boost	
	Technology, 25 MB L3 cache, 12 cores, 20 threads) Graphics	
	Integrated: Intel® UHD Graphics 770	
	Memory 12 GB DDR4-3200 RAM	
	Memory slots 2 DIMM	
	Storage	
	512 GB PCIe® NVMe™ M.2 SSD	
	Secondary storage	
	1 TB 7200 rpm SATA HDD	
	DVD Writer	
	D v D- writer Memory card dovice	
	HP 3-in-1 memory card reader	
	Network interface	
	Integrated 10/100/1000 GbE LAN	
	Wireless technology	
	Realtek Wi-Fi 6 (2x2) and Bluetooth® 5.2 wireless card	
	(supporting gigabit data rate); Realtek Wi-Fi 6 (2x2) and	
	Bluetooth® 5.3 wireless card (supporting gigabit data rate) <b>Power</b>	
	supply 310 W 80 Plus Gold certified power supply	
	External I/O Ports	
	Front : 1 USB Type-C® 5Gbps signaling rate; 2 USB Type-A	
Desktop Computer	10Gbps signaling rate; 2 USB Type-A 5Gbps signaling rate; 1	
	headphone/microphone combo	
	Rear : 4 USB 2.0 Type-A; 1 audio-in; 1 audio-	
	out; 1 microphone; 1 RJ-45	
	Expansion slots	
	2 M.2 (1 for SSD, 1 for WLAN); 1 PCIe x16; 1 PCIe x1	
	Video connector	
	1 VGA, 1 HDMI-OUL 1.40 Audio Fosturos	
	5.1 surround sound	
	Energy efficiency EPEAT® Silver registered ENERGY STAR®	
	certified	
	Color Snow white Keyboard	
	White Wired Keyboard and mouse combo	
	Warranty	
	1-year limited hardware warranty. Additional information	
	available at www.support.hp.com; 1-year limited technical	
	support for software and initial setup (from date of purchase)	
	Software included	

	McAfee LiveSafe <sup>TM</sup> ; 1-month Adobe free trial offer DVD Playback; Duet® for HP (30 day free trial)1 month trial for new Microsoft 365 customers OR Latest
Laser Printer (Medium Duty)	<ul> <li>Print Speed: 30 ppm or higher</li> <li>Duty Cycle : 80,000 pages or higher, 4,000 pages/month or higher</li> <li>Processor: 800 MHz or Higher Internal Memory: 128</li> <li>MB or higher Resolution: 600 x 600 dpi or higher Paper</li> <li>Type: Legal, A4, Letter</li> <li>Paper Supply: Two Trays (One Multipurpose) Interface Network</li> <li>Ready (Gigabit Ethernet). Connectivity 10/100/1000T Ethernet.</li> <li>Built in wifi</li> <li>Other Features: Full Duplex Windows and Linux supported</li> <li>Drivers, management software, USB 2.0 Cable with standard</li> <li>features like print cancel button, LCD display etc (Multi purpose, copy, print &amp; scan features) OR</li> <li>Latest</li> </ul>
FPGA Board Kits	FPGA Board Kits for DLD & Electronic Lab
Adjustable DC Power Supply	DC Power Supply Adjustable(0-30 V 0-10 A)
Digital Multimeter	Digital Multimeter for DLD lab
Digital IC Tester	MODEL: DLC9G USA / DLC10
Apparatus to study behavior of Capacitance in AC circuits	220-V AC
CPLD Boards	XC9500XL WITH CARD, ISE CD
Electronic Scale	TH-5000 (5000g x 1g/200OZ x 0.1 OZ)
Cable Crimping tool & Tester	<b>Power Source</b> : Corded Electric <b>Style</b> : Tester and Crimper <b>Color</b> : Black <b>Item Weight</b> : 1.6 Pounds

Laptops	Generation:11th GenerationProcessor Type:11th Generation Intel Core i7-1165G7 Tiger Lake(12 MB L3 Cache)Processor Speed:2.8 Ghz Turbo Boost Up to4.7 GHz (4 Cores - 8 Threads)Installed RAM :08 GBType of memory:4GB Soldered DDR4-3200 +4GB SO-DIMMDDR4-3200Hard drive size:01 TeraByte HDDHard drive speed:1TB HDD 5400rpm 2.5" SSD:256 GBType of hard drive:SATA HDDGraphics memory:Integrated Intel® Iris® Xe GraphicsType of graphics memory:Shared Switchable graphics:NoGraphics processor:Intel SoC Platform Backlight:LEDScreen size:15.6" Full HD TN Panel DIsplay Screen surface:15.6" FHD (1920x1080) TN 250nits Anti-glareScreen resolution:1920x1080 Weight:Numerickeyboard:backlit, English (UK) Bluetooth:Backlit keyboard:backlit, English (UK) Bluetooth:Bluetooth 5.0Wireless/Wifi YesType:11ac 2x2USB:1x USB 2.0 1x USB 3.2 Gen 1 1x USB- C® 3.2 Gen 1
	(support data transfer only) <b>HDMI</b> : 1x HDMI® 1.4b
Arduino On Android Kit	Arduino MEGA ADK (usb cable included)
	Andunio MEOTADIX (uso cubic included)
	Botany
Rotary Evaporator	Purification of solvents, 5L or above, Ambient Temp: +5°C – 180°C, Micro compressor, LED/LCD display, 220V-50Hz
Laminar Flow Hood	Cleanliness Level: ISO Class 5 (Class 100), Downflow velocity: 0.2-0.5m/s (adjustable), High-quality stainless steel, corrosion-resistant
Thermostatic Water Bath	Digital temperature display, Temp range: Ambient +5°C to 100°C, Accuracy: 0.3°C, Uniformity: $37°C \pm 0.5°C$ , Volume: $325 \times 150 \times 176$ mm
Incubator	Temp Range: RT +5-70°C, Resolution: 0.1°C, Motion: ±0.5°C, Uniformity: ±1.5°C, Inner Chamber: 350×350×350 mm
Centrifuge	Capacity: 12 x 1.5/2.0ml, Max RCF: 12,100 x g, Speed: 800-14,000 rpm, Timer: 15 sec to 99 min
Low-Speed Mini Centrifuge	Rotor Capacity: 0.2/0.5/1.5/2.0ml x8, Speed: 7000 rpm, Centrifugal Force: 268g, Noise: ≤45 dB

Freezer (-20°C)	External Size: 540×540×880 mm, Internal: 410×410×670 mm, Capacity: 100L, Temp Range: -10°C to -25°C, LED Display
Refrigerator	380L, 18 Min Instant Freezer, -28°C Coolest, Humidity Control, Anti-fungal gasket, Japanese technology compressor
Hemocytometer	Cell depth: 0.100mm, Volume: 0.1 Microliter, Neubauer ruling pattern, Includes 1 cover slip
Biological Microscope	WF10X Eyepiece, DIN Achromatic Objectives, Magnifications: 4X, 10X, 40X, 100X, ABBE Condenser: N.A. 1.25
Dissecting Microscope	Vertical monocular, Eyepiece: 0.5x, 1x, Magnification: 0.7x-4.5x, Working distance: 95mm
Stage Micrometer	Scale: 1mm, Resolution: 0.01mm, Thickness: 1.10mm
Sterilizer (Autoclave)	30L capacity, Aluminum body, Pressure Gauge: 0-30 lbs/in <sup>2</sup> , Safety release valve, Electric element
Polymerase Chain Reaction (PCR) Thermocycler	Capacity: 96 x 0.2ml, 54 x 0.5ml, Temp range: 0-99°C, Heating rate $\geq$ 4.0°C/s, Cooling rate $\geq$ 3.5°C/s
Spirit Lamp	Pakistan
Spectrophotometer	Single beam, Grating: 1200 lines/mm, Wavelength: 190-1100nm, Bandwidth: 2nm, Accuracy: ±0.5nm 280×255×40mm, Transmission light source: 470nm, Sensitivity: up
UV Transilluminator	to 0.5ng
Thermostat Incubator	China
Quartz Water Distillation Unit	Double stage, Quartz glass, Heater: Spiral heater, Distillate Temp: 25°C-40°C, Output pH: 5.5-6.0
Micrometer (Stage & Ocular)	Stage: Scale 1mm, Ocular: Scale 10mm, Least Count: 0.1mm
Anemometer	Digital (USA)
Quadrats	3 sq foot
Drill Machine for Homogenizing	Electrical (China)
Hot Plate	Electrical (Pak/China)
Blender	Electrical (China)
Electric Grinder	Electrical (Pak/China)
Herbarium Press	Wooden (Pak)
Reagent Bottles	Glass (Germany)
Cupboards	Stainless Steel (Pak)
Test Tubes	With lids (Germany)
Sieves (Soil Texture Analysis)	Metal (Pak)
Micropipette Set	5µL, 10µL, 100µL, 500µL, 1000µL, 5000µL (Glass, Germany)

Herbarium Sheet	Pakistan
Titration Flask	Glass (Germany)
Aluminum Foil	-
Funnel	Glass (Pak/China)
pH Meter	Germany
Filter Papers	Pak/China
Dropper	Glass (China)
Showcase	Wooden Glass (Pak)
Beakers	Pyrex, Different Volumes (Germany)
Vortex Mixer	Speed: 0-2,850 rpm, Modes: Touch/Continuous, Dimensions: 14×16×13 cm, 230V, 50Hz
Watch Glass	Glass/Plastic
Dissection Box	Pak/China
Digital Stopwatch	China
Magnifying Glass	China
Physical Balance	Pak/China
Graduated Cylinder	Pak/China
Petri Dishes	Borosilicate Glass, 100mm × 15mm
Test Tubes with Screw Cap	High-Quality Glass, 10ml, Pak/China
Test Tube Racks	Steel, Pak/China
Eppendorf Tubes	Best Quality, Spill-Proof Lid
PCR Tubes	Best Quality, Spill-Proof Lid
Seed Germinator	Capacity: 18L, Temp: Room +5°C - 65°C, Accuracy: ±1°C, Power: 220V, 50Hz
Digital Analytical Balance	Capacity: 210g, LCD Display, Waterproof, Windshield Glass
Bench-Top pH Meter	pH Range: -2.000 to 20.000, Resolution: 0.1, Accuracy: $\pm 0.01$ , Auto Temp Compensation
Portable Soil pH Meter	pH Range: 0.00-14.00, Error: ±0.05, Temp Range: -10 to 60°C, Battery: 9V
GPS Device	Rugged Handheld, Worldwide Basemap, 25-hour battery
Mortar & Pestle	Ceramic, Diameter: 60mm, 100mm, 260mm
Separating Funnel	250ml, 500ml, 1000ml
Erlenmeyer Flask	100ml, 500ml, 1000ml
Formalin	Laboratory Grade
Spirit	Laboratory Grade

Immersion Oil	Laboratory Grade
Sodium Bicarbonate	Laboratory Grade
Acetone	Laboratory Grade
Sodium Carbonate	Laboratory Grade
Leishman Stain	Laboratory Grade
Methylene Blue	Laboratory Grade
Neutral Red	Laboratory Grade
Acetocarmine	Laboratory Grade
Methanol	Laboratory Grade
n-Hexane	Laboratory Grade
Agar	Laboratory Grade
Carmine	Laboratory Grade
Citric Acid	Laboratory Grade
Ethidium Bromide	Laboratory Grade
Copper Sulfate	Laboratory Grade
Alcohol	Laboratory Grade
Chromatographic Paper	Laboratory Grade
Blotting Paper	Laboratory Grade
Saline Solution	Laboratory Grade
Gelatin Powder	Laboratory Grade
Malachite Green	Laboratory Grade
Bromophenol	Laboratory Grade
Ethanol	Laboratory Grade
Agar	Laboratory Grade
Aceto Orcein	Laboratory Grade
Ethidium Bromide	Laboratory Grade
Sulfuric Acid	Laboratory Grade
Potassium Iodide	Laboratory Grade
Potassium Hydroxide	Laboratory Grade
Sodium Nitrate	Laboratory Grade
Starch Indicator	Laboratory Grade
Iron Sulfate	Laboratory Grade
Hydrochloric Acid	Laboratory Grade

Copper Sulfate	Laboratory Grade
Ammonia	Laboratory Grade
Lead Acetate	Laboratory Grade
Urea	Laboratory Grade
Seed Germination Chart	Laboratory Grade
Phenolphthalein	Laboratory Grade
Agar	Laboratory Grade
Acetone	Laboratory Grade
Sodium Borate	Laboratory Grade
Copper Sulfate	Laboratory Grade
Ethyl Ether	Laboratory Grade
Glycerol	Laboratory Grade
Ninhydrin	Laboratory Grade
Silver Nitrate	Laboratory Grade
Iodine	Laboratory Grade
Gelatin	Laboratory Grade
Acetocarmine	Laboratory Grade
Peptone	Laboratory Grade
Potassium Chloride (KCl)	Laboratory Grade
Yeast Extract	Laboratory Grade
Methanol	Laboratory Grade
Ammonium Acetate	Laboratory Grade
Magnesium Sulfate (MgSO <sub>4</sub> )	Laboratory Grade
Potassium Sulfate (K <sub>2</sub> SO <sub>4</sub> )	Laboratory Grade
Zinc Sulfate	Laboratory Grade
Formalin	Laboratory Grade
Sodium Fluoride	Laboratory Grade
Zinc Chloride	Laboratory Grade
Methylated Spirit	Laboratory Grade
Disodium Hydrogen Phosphate (Na <sub>2</sub> HPO <sub>4</sub> )	Laboratory Grade
Cytokinins	Laboratory Grade
Trichloroacetate	Laboratory Grade

Orange G	Laboratory Grade
Mercuric Chloride	Laboratory Grade
Colchicine	Laboratory Grade
Nutrient Agar	Laboratory Grade
Peptone	Laboratory Grade
Anabaena algae	Cyanobacteria, used in aquatic ecology studies and nitrogen fixation.
Agricus	Genus of fungi (mushrooms), used in mycology studies.
Anthocerous sporophyte	A type of hornwort plant; key in plant reproduction and evolutionary studies.
Azotobacter	Nitrogen-fixing bacteria.
Pinnularia	A genus of diatoms, studied for their silica cell walls and role in aquatic ecosystems.
Phytophthora	Genus of water molds responsible for plant diseases.
Pinus	Coniferous trees, studied for plant biology, reproduction, and forest ecology.
Ephedra	A genus of gymnosperms, used in medicinal botany.
Sphagnum	A genus of mosses, key in ecological studies and water retention.
Pellia	A genus of liverworts, non-vascular plants.
Mucor	A genus of fungi, commonly found in mold studies.
Porella	A genus of liverworts, used in ecological and plant systematics studies.
Gnetum	A genus of gymnosperms, studied for their evolutionary significance.
Late Blight of Potato	Disease caused by Phytophthora infestans.
Red rot of sugarcane	Disease caused by Colletotrichum falcatum.
Tobacco mosaic virus	A virus affecting tobacco plants, causing leaf distortion.
Bacterial wilt of cucurbits	Disease caused by Ralstonia solanacearum.
Fucus	A genus of brown algae, studied for ecological and physiological properties.
Clavecip	Likely a mislabel or uncommon name; could refer to a plant or fungal genus.
Cystopus	A parasitic fungus affecting plants.
Colletotrichum	A genus of fungi causing anthracnose disease in plants.
Cystopus	(Repeated)
Laminaria	A genus of brown algae, commonly known as kelp.
Marsilea	Aquatic fern, often used in plant physiology and ecological studies.

Ustilago	A genus of smut fungi, important in the study of plant pathology.
Oscillatoria	A genus of cyanobacteria, found in aquatic environments.
Spirogyra	A genus of green algae, used in the study of plant biology and aquatic ecosystems.
Chara	A genus of freshwater green algae.
Vaucheria	A genus of yellow-green algae, studied for its ecological role and morphology.
Oedogonium	A genus of green algae, often used to study plant reproduction.
Ectocarpus	A genus of brown algae, studied for ecological research and phylogenetic studies.
Polysiphonia	A genus of red algae, commonly used in marine biology studies.
Penicillium	A genus of fungi, important for antibiotics and mold studies.
Yeast	Fungi used in baking, brewing, and research.
Puccinia	A genus of rust fungi, causing diseases in plants.
Agricus	(Repeated)
Lichens	Symbiotic organisms used in ecology and environmental science studies.
Marchantia thallus cross section	Study of liverwort thallus, a non-vascular plant.
Marchantia Antheridophore & Archegoniophore	Structures in liverworts for gamete production.
Marchantia Antheridophore & Archegoniophore Riccia Thallus cross section	Structures in liverworts for gamete production. Study of the thallus of a liverwort.
Marchantia Antheridophore & Archegoniophore Riccia Thallus cross section Athocerose	Structures in liverworts for gamete production.Study of the thallus of a liverwort.Likely referring to Anthoceros, a hornwort. Used in plant reproduction studies.
Marchantia Antheridophore & Archegoniophore Riccia Thallus cross section Athocerose Funaria	Structures in liverworts for gamete production.Study of the thallus of a liverwort.Likely referring to Anthoceros, a hornwort. Used in plant reproduction studies.A genus of mosses, used in plant development studies.
Marchantia Antheridophore & Archegoniophore Riccia Thallus cross section Athocerose Funaria Polytrichum	<ul> <li>Structures in liverworts for gamete production.</li> <li>Study of the thallus of a liverwort.</li> <li>Likely referring to Anthoceros, a hornwort. Used in plant reproduction studies.</li> <li>A genus of mosses, used in plant development studies.</li> <li>A genus of moss, important in plant systematics and ecology.</li> </ul>
Marchantia Antheridophore & Archegoniophore Riccia Thallus cross section Athocerose Funaria Polytrichum Equisetum	<ul> <li>Structures in liverworts for gamete production.</li> <li>Study of the thallus of a liverwort.</li> <li>Likely referring to Anthoceros, a hornwort. Used in plant reproduction studies.</li> <li>A genus of mosses, used in plant development studies.</li> <li>A genus of moss, important in plant systematics and ecology.</li> <li>A genus of horsetails, ancient vascular plants.</li> </ul>
Marchantia Antheridophore & Archegoniophore Riccia Thallus cross section Athocerose Funaria Polytrichum Equisetum Adiantum	<ul> <li>Structures in liverworts for gamete production.</li> <li>Study of the thallus of a liverwort.</li> <li>Likely referring to Anthoceros, a hornwort. Used in plant reproduction studies.</li> <li>A genus of mosses, used in plant development studies.</li> <li>A genus of moss, important in plant systematics and ecology.</li> <li>A genus of horsetails, ancient vascular plants.</li> <li>A genus of ferns, useful in plant reproductive studies.</li> </ul>
Marchantia Antheridophore & Archegoniophore Riccia Thallus cross section Athocerose Funaria Polytrichum Equisetum Adiantum Cycas	<ul> <li>Structures in liverworts for gamete production.</li> <li>Study of the thallus of a liverwort.</li> <li>Likely referring to Anthoceros, a hornwort. Used in plant reproduction studies.</li> <li>A genus of mosses, used in plant development studies.</li> <li>A genus of moss, important in plant systematics and ecology.</li> <li>A genus of horsetails, ancient vascular plants.</li> <li>A genus of ferns, useful in plant reproductive studies.</li> <li>A genus of cycads, ancient seed plants.</li> </ul>
Marchantia Antheridophore & Archegoniophore Riccia Thallus cross section Athocerose Funaria Polytrichum Equisetum Adiantum Cycas Ginkgo	<ul> <li>Structures in liverworts for gamete production.</li> <li>Study of the thallus of a liverwort.</li> <li>Likely referring to Anthoceros, a hornwort. Used in plant reproduction studies.</li> <li>A genus of mosses, used in plant development studies.</li> <li>A genus of moss, important in plant systematics and ecology.</li> <li>A genus of horsetails, ancient vascular plants.</li> <li>A genus of ferns, useful in plant reproductive studies.</li> <li>A genus of cycads, ancient seed plants.</li> <li>A genus of trees, relevant in evolutionary studies.</li> </ul>
Marchantia Antheridophore & Archegoniophore Riccia Thallus cross section Athocerose Funaria Polytrichum Equisetum Adiantum Cycas Ginkgo Mitosis Stages	<ul> <li>Structures in liverworts for gamete production.</li> <li>Study of the thallus of a liverwort.</li> <li>Likely referring to Anthoceros, a hornwort. Used in plant reproduction studies.</li> <li>A genus of mosses, used in plant development studies.</li> <li>A genus of moss, important in plant systematics and ecology.</li> <li>A genus of horsetails, ancient vascular plants.</li> <li>A genus of ferns, useful in plant reproductive studies.</li> <li>A genus of cycads, ancient seed plants.</li> <li>A genus of trees, relevant in evolutionary studies.</li> <li>Observation of mitotic cell division stages.</li> </ul>
Marchantia Antheridophore & Archegoniophore Riccia Thallus cross section Athocerose Funaria Polytrichum Equisetum Adiantum Cycas Ginkgo Mitosis Stages Meiosis Stages	<ul> <li>Structures in liverworts for gamete production.</li> <li>Study of the thallus of a liverwort.</li> <li>Likely referring to Anthoceros, a hornwort. Used in plant reproduction studies.</li> <li>A genus of mosses, used in plant development studies.</li> <li>A genus of moss, important in plant systematics and ecology.</li> <li>A genus of horsetails, ancient vascular plants.</li> <li>A genus of ferns, useful in plant reproductive studies.</li> <li>A genus of cycads, ancient seed plants.</li> <li>A genus of trees, relevant in evolutionary studies.</li> <li>Observation of mitotic cell division stages.</li> </ul>
Marchantia Antheridophore & Archegoniophore Riccia Thallus cross section Athocerose Funaria Polytrichum Equisetum Adiantum Cycas Ginkgo Mitosis Stages Meiosis Stages Parenchyma	<ul> <li>Structures in liverworts for gamete production.</li> <li>Study of the thallus of a liverwort.</li> <li>Likely referring to Anthoceros, a hornwort. Used in plant reproduction studies.</li> <li>A genus of mosses, used in plant development studies.</li> <li>A genus of moss, important in plant systematics and ecology.</li> <li>A genus of horsetails, ancient vascular plants.</li> <li>A genus of ferns, useful in plant reproductive studies.</li> <li>A genus of cycads, ancient seed plants.</li> <li>A genus of trees, relevant in evolutionary studies.</li> <li>Observation of mitotic cell division stages.</li> <li>Plant tissue; used for storage, photosynthesis, and wound healing.</li> </ul>
Marchantia Antheridophore & Archegoniophore Riccia Thallus cross section Athocerose Funaria Polytrichum Equisetum Adiantum Cycas Ginkgo Mitosis Stages Meiosis Stages Parenchyma Collenchyma	<ul> <li>Structures in liverworts for gamete production.</li> <li>Study of the thallus of a liverwort.</li> <li>Likely referring to Anthoceros, a hornwort. Used in plant reproduction studies.</li> <li>A genus of mosses, used in plant development studies.</li> <li>A genus of moss, important in plant systematics and ecology.</li> <li>A genus of horsetails, ancient vascular plants.</li> <li>A genus of ferns, useful in plant reproductive studies.</li> <li>A genus of cycads, ancient seed plants.</li> <li>A genus of trees, relevant in evolutionary studies.</li> <li>Observation of mitotic cell division stages.</li> <li>Plant tissue; used for storage, photosynthesis, and wound healing.</li> <li>Plant tissue; provides structural support, particularly in growing regions.</li> </ul>

"T.S. of Cycas Coralloid Root"	Transverse section of Cycas coralloid root; used in studying root structure and symbiosis with nitrogen-fixing bacteria.
"T.S. of Pinus Wood"	Transverse section of Pinus wood; used to study the structure of coniferous wood and vascular tissues.
L.S. of Cycas Ovule	Longitudinal section of Cycas ovule; used for studying reproductive structures of gymnosperms.
L.S. of Angiosperm Wood	Longitudinal section of angiosperm wood; used to study vascular tissues of flowering plants.
Volvox	Freshwater green algae; studied for colonial organization and flagella movement.
Chlamydomonas	Single-celled green algae; used for studying flagellar motion and cell division.
Euglena	Single-celled flagellate; used for studying motility and photosynthesis.
Paramecium	Ciliated protozoan; studied for cell structure and behavior.
"T.S. of Dicot Stem"	Transverse section of dicot stem; used to examine vascular tissues and secondary growth.
"T.S. of Stomata"	Transverse section of stomata; used to study gas exchange mechanisms in plants.
Trichomone	Hair-like structures on plants; involved in protecting and absorbing water and nutrients.
"T.S. of Collenchyma"	Transverse section of collenchyma; used to study the supportive role of flexible tissues in young plants.
"T.S. of Lichen"	Transverse section of lichen; used to study the symbiotic relationship between fungi and algae.
L.S. of Cycas Ovule	Longitudinal section of Cycas ovule; used in studying reproductive biology of cycads.
L.S. of Apical Meristem	Longitudinal section of the apical meristem; used for studying primary growth in plants.
"T.S. of Laminaria"	Transverse section of Laminaria (kelp); used in studying the structure of brown algae.
"T.S. of Monocot Stem"	Transverse section of monocot stem; used to examine vascular bundles and their arrangement in monocots.
"T.S. of Monocot Root"	Transverse section of monocot root; used to study root structure and vascular tissues in monocots.
"T.S. of Dicot Leaf"	Transverse section of dicot leaf; used to observe leaf anatomy, including mesophyll and vascular tissue.
"T.S. of Flower"	Transverse section of a flower; used to examine floral organs and their structures.
"T.S. of Root Nodule"	Transverse section of root nodule; used for studying nitrogen-fixing bacteria interactions with plant roots.
"T.S. of Secondary Root"	Transverse section of secondary root; used to observe the structure of roots in mature plants.
"T.S. of Primary Root"	Transverse section of primary root; used to study the root structure in plants.

"L.S. of Hypogynous Flower"	Longitudinal section of a hypogynous flower; used to study flower anatomy, where ovary is below other floral parts.
L.S. of Perigynous Flower	Longitudinal section of a perigynous flower; used to study the arrangement of floral organs.
L.S. of Epigynous Flower	Longitudinal section of an epigynous flower; used to observe the ovary located above other floral parts.
Pollen Grain Germinating	Observation of a pollen grain germinating; used for studying plant reproduction and fertilization.
"T.S. of Monocot Leaf"	Transverse section of monocot leaf; used for studying leaf structure in monocots.
Parasitic Root	Root of a parasitic plant; used to study the mechanism of parasitism in plants.
Phylloclade	Modified stem or leaf, often used in xerophytes; studied for water storage or photosynthesis.
Pinus Male Cone	Male reproductive structure of Pinus; used for studying pollen production and fertilization in gymnosperms.
Pinus Female Cone	Female reproductive structure of Pinus; used for studying seed development in conifers.
Mosaic of Tomato	Study of tomato plant infected with the mosaic virus; used to observe viral effects on plant cells.
Azolla with Sporocarp	Aquatic fern with sporocarp; studied for its symbiotic nitrogen- fixing relationship with cyanobacteria.
	Physics
Hot Plate Magnetic Stirrer	Temperature: 20°C to 350°C, Speed: 100 to 1500 rpm, Heating Power: 400W to 1000W, Stainless Steel/Ceramic Plate, Overheating Protection
Muffle Furnace (Temp Range 1200°C)	Temperature: 200°C to 1200°C, Heating Rate: 10°C/min, Interior: 250mm x 250mm x 300mm, Power: 3kW, Digital Controller with Auto Shutoff
Millikan Oil Drop Apparatus	Oil Droplet in Electric Field, Microscope: High Resolution, Power Supply: Adjustable DC Voltage, Charge Measurement with Accuracy $\sim 10^{-19}$ C
Resonance Tube Apparatus	Tube Length: 1m-2m, Frequency Range: 100Hz-5000Hz, Microphone: High Sensitivity, Adjustable Signal Generator
Planck's Constant Apparatus (Photoelectric Effect)	Light Source: Tungsten/LED, Voltage Supply: 0-20V DC, Photocell with Low Work Function, Measurement of Planck's Constant
Sodium Light Source 35 Watt	Power: 35W Sodium Lamp, Lamp Housing: Integrated/Separate, Voltage: Lead, Choke, Power Supply Included, Color Temp: 589 nm (Sodium D-line)
Fresnel Biprism Apparatus	Light Source: Sodium Light, Prism: Optical Glass, Adjustable Apparatus, Measurement of Wavelength using Interference Pattern
Geiger-Müller Apparatus	Detects Alpha, Beta, Gamma Radiation, Power: 110V/220V AC, Display: Digital/Analog Counter, Radioactive Source (Cesium/Am, Alpha, Beta, Gamma)

Free Fall Apparatus to Find "g"	Drop Height: Up to 10m, Timer: Digital Stopwatch, High Precision, Mounted/Suspended Setup for Free Fall
Tungsten Filament Bulbs (12V, 36W)	Voltage: 12V, Wattage: 36W, Material: Tungsten Filament, Socket: E27 Screw-in, Color Temp: ~3000K, Lifespan: ~1000-1500 hours
Capacitors of Different Values	Range: Picofarads (pF) to Microfarads ( $\mu$ F), Voltage Rating: 10V to 500V, Type: Ceramic, Electrolytic, Tantalum, Tolerance: $\pm 10\%$
Apparatus for Viscosity of Glycerine	Measurement: Falling Ball/Rotating Cylinder, Suitable for Glycerine and Similar Fluids, Stainless Steel/Glass, High Accuracy
Resistors of Different Values	Value Range: Ohms ( $\Omega$ ) to Megaohms (M $\Omega$ ), Tolerance: ±1%, ±5%, ±10%, Type: Fixed Resistors, Wire-Wound, Power Rating: Up to 10W
Apparatus to Study Inverse Square Law of Light	Light Source: Adjustable Intensity Lamp/LED, Light Meter: Photodiode/LDR, Adjustable Distance for Light Source and Sensor
Neon Flashlamp Apparatus	Power Source: DC High Voltage (100V-300V), Flash Rate: Adjustable Frequency, Light Intensity: Controlled Neon Emission
Digital Trainer Kit	Components: Digital Circuits, Logic Gates, Flip-Flops, Amplifiers, Power Supply: Variable DC, Digital Readout for Circuit Testing
Microwave Oven	Power: 600W to 1000W, Capacity: 20L to 30L, Frequency: 2.45 GHz, Controls: Digital Timer, Power Levels, Safety: Child Lock, Auto Turn-off
Ionization Potential of Mercury (Modern Apparatus)	Light Source: Mercury Vapor Lamp, Voltage Supply: 0-100V DC, Measurement: Photoelectric Effect, Safety: UV Protective Shields
Hysteresis Loop Apparatus	Power: DC/AC Supply, Magnetic Field: Adjustable Electromagnet, Measurement: Galvanometer/Digital Display for Current & Magnetic Field Strength
Zeeman Effect Apparatus	Light Source: Mercury or Sodium Discharge Tube, Magnetic Field: Strong Electromagnet, Detection: Spectrometer or Diffraction Grating
Michelson Interferometer	Light Source: Monochromatic Light (Laser/Sodium Lamp), Precision Mirrors, Adjustable Apparatus for Interference Fringes
Digital Screw Gage & Vernier Caliper	Digital Display, Screw Gage: 0-25mm, Vernier Caliper: 0-150mm, Accuracy: ±0.01mm
Electrospinning Laboratory Equipment	Syringe Pump: 5-Channel (0.01mL/H-99.99mL/H), Voltage: 30kV, X-Axis Stage (0-999mm/min), Collection Drum (76mm Diameter), Exhaustion System
Other Items (Multimeters, Power Supplies, Barometers, etc.)	Standard Specifications for Educational Use, Accuracy: High Precision, Durability: Suitable for Student/Instructor Handling
Zoology	
Digital Oven 72°C	Temperature Range: Room Temperature to 72°C, Digital Temperature Control, Inner Chamber Material: Stainless Steel, Timer Control

Digital Oven 37°C	Temperature Range: Room Temperature to 37°C, Digital Temperature Control, Inner Chamber Material: Stainless Steel, Timer Control
Stabilizer	Voltage: 220V AC, Power: 5W to 10W, Stabilizes voltage fluctuations for sensitive equipment
Solar Panel	Type: Polycrystalline/Silicon, Output Power: 10W to 300W, Voltage: 12V/24V, Efficiency: 15%-22%, Weather Resistance
Wireless Presenter	Connectivity: Bluetooth, Range: 30m, Battery: Rechargeable, Buttons: Slide Control, Laser Pointer
Plastic Rack for 20 Falcon Tubes	Material: High-Quality Plastic, Holds 20 Falcon Tubes, Suitable for 50ml or 15ml Falcon Tubes
Test Tubes/Centrifugal Tubes (5ml, 10ml, 20ml, 50ml, 100ml)	Material: Glass/Plastic, Volume: 5ml, 10ml, 20ml, 50ml, 100ml, Each Size with Tube Rack/Box (10x10)
100 BP to 1 KB DNA Ladder	Ladder Range: 100bp to 1KB, Used for DNA Size Estimation, Molecular Weight Marker, Suitable for Agarose Gel Electrophoresis
Tris Powder	Chemical: Tris(hydroxymethyl)aminomethane, Molecular Weight: 121.14 g/mol, Used for Buffer Solutions
Triton X-100	Surfactant, Used for Cell Lysis and Protein Extraction, Molecular Weight: 625.9 g/mol, Soluble in Water
Trizma Base	Chemical: Tris(hydroxymethyl)aminomethane, Used in Buffer Solutions, Molecular Weight: 121.14 g/mol
Carbon Disulfide	Chemical: CS <sub>2</sub> , Used for Organic Synthesis, Molecular Weight: 76.14 g/mol, Flammable Liquid
Specimens of Invertebrate Phyla	Collection of Preserved Invertebrates Representing Various Phyla
Specimens of Phylum Chordata	Preserved Specimens: Fish, Amphibians, Reptiles, Birds, Mammals
Stuffed Specimens of Phylum Chordata	Stuffed/Preserved Specimens of Vertebrates
Skeleton of Vertebrates	Full Skeleton Models: Fish, Amphibians, Reptiles, Birds, Mammals
Mitosis Slides	Prepared Slides Showing Different Stages of Mitosis
Meiosis Slides	Prepared Slides Showing Different Stages of Meiosis
Models of Human Organs	Life-Size or Scaled Models: Brain, Heart, Lungs, Kidney, Digestive System, Reproductive Organs, etc.
Bat	Preserved Bat Specimen
Duck	Preserved Duck Specimen
Woodpecker	Preserved Woodpecker Specimen
Squirrel	Preserved Squirrel Specimen
Kingfisher	Preserved Kingfisher Specimen
Parrot	Preserved Parrot Specimen
Fox	Preserved Fox Specimen

Forcaps	Medical/Dissection Caps for Laboratory Use
Needles	Dissection Needles for Lab Use
Mitosis All Stages	Prepared Slides Showing All Stages of Mitosis
Meiosis All Stages	Prepared Slides Showing All Stages of Meiosis
Insect Net	Fine Mesh Net for Capturing Insects
Fishing Net	Durable Net for Fishing/Collection of Aquatic Specimens
Sawfish	Preserved Sawfish Specimen
Eel	Preserved Eel Specimen
Plasmodium	Prepared Slide of Plasmodium (Malaria Parasite)
Blood Anti Serum	Used for Blood Grouping and Serological Reactions
Dissecting Box Tray	Box for Holding Specimens during Dissection
Cotton Packets Articulated	Articulated Cotton Packets for Dissecting Practice
Skeleton of Human Being	Full Human Skeleton Model
Venous System of Frog	Anatomical Model/Slide Showing Frog's Venous System
Arterial System of Frog	Anatomical Model/Slide Showing Frog's Arterial System
Articulated Skeleton of Frog	Full Articulated Frog Skeleton for Study
T.S. of Amphioxus	Prepared Transverse Section of Amphioxus (Chordate Model)
T.S. of Leech	Prepared Transverse Section of Leech
T.S. of Earthworm Stages of Development	Prepared Slides Showing Earthworm Developmental Stages
Cell Division Full Set Stages of Meiosis	Prepared Slides Showing All Stages of Meiosis
Striated Muscles Frog Man	Prepared Slide of Striated Muscles (Frog and Human)
Skeletal Muscles	Prepared Slide of Skeletal Muscles
Section of Mammalia Testis	Prepared Slide of Mammalian Testis
Section of Mammalian Ovary	Prepared Slide of Mammalian Ovary
Preserved Specimen in Jar	Preserved Specimens Stored in Jars for Long-Term Preservation
Millipede	Preserved Millipede Specimen
Red Corals	Preserved Red Coral Specimens
Toad	Preserved Toad Specimen
Salamander	Preserved Salamander Specimen
Trout Fish	Preserved Trout Fish Specimen

Chick Embryo (Different Stages)	Preserved Chick Embryos in Different Developmental Stages
Prepared Slides of Eutamoeba	Prepared Slide of Eutamoeba (Protozoa)
Prepared Slides of Euglena, Paramecium	Prepared Slides of Euglena and Paramecium (Protozoa)
T.S. of Small Intestine	Prepared Transverse Section of Small Intestine
T.S. of Large Intestine	Prepared Transverse Section of Large Intestine
T.S. of Skin	Prepared Transverse Section of Skin
T.S. of Artery	Prepared Transverse Section of Artery
T.S. of Vein	Prepared Transverse Section of Vein
Mitosis of All Stages	Prepared Slide Showing All Stages of Mitosis
Meiosis of All Stages	Prepared Slide Showing All Stages of Meiosis
T.S. of Liver	Prepared Transverse Section of Liver
Ovaries	Prepared Slide of Mammalian Ovaries
Testes	Prepared Slide of Mammalian Testes
Ascaris	Prepared Slide of Ascaris (Nematode)
Squamous Epithelium	Prepared Slide of Squamous Epithelium
Epithelial Cells	Prepared Slide of Epithelial Cells
Adipose Tissue	Prepared Slide of Adipose Tissue
Osteocyte	Prepared Slide of Osteocyte (Bone Cell)
Neuron	Prepared Slide of Neuron (Nerve Cell)
Cartilage Slide	Prepared Slide of Cartilage Tissue
Embryo of Frog Full Set	Full Set of Frog Embryo Stages for Study
Embryo of Reptile Full Set	Full Set of Reptile Embryo Stages for Study
Embryo of Mammals Full Set	Full Set of Mammal Embryo Stages for Study
Embryo of Echinoderm Full Set	Full Set of Echinoderm Embryo Stages for Study
Chemistry	
1. Apparatus & Equipment	
Item	Specifications
pH Meter	Hanna HI-981033, HI2020 (Benchtop Multiparameter)
UV-Visible Spectrophotometer	Double beam, 190-1100 nm wavelength range, USB connectivity
Conductivity Meter	Hanna HI2003-02 Edge Conductivity Meter

Digital Refractometer	METTLER TOLEDO RX4	
Analytical Balance	METTLER TOLEDO ME204E, 220g max capacity, 0.1mg readability	
Digital Balance	0.1g minimum capacity, 10kg maximum capacity	
Digital Thermometer	Stainless steel probe, -50°C to 300°C, ±0.1°C accuracy	
Boiling Point & Melting Point Apparatus	2°C to 300°C, LED display, capillary tubes	
Density Meter	0.001 to 99.999 g/cm <sup>3</sup> , 5s measurement time	
Polarimeter	Advanced model SK011	
Viscometer	Ostwald Viscometer, Pyrex glass	
Stalagmometer	Borosilicate/Pyrex glass	
Digital Water Bath	12L capacity, RT-100°C range, 4 holes	
Digital Sand Bath	300×300mm top plate, up to 350°C, ±1°C stability	
Oven	30L chamber, RT+10°C to 250°C, digital timer	
Hot Plate	Witeg HP-500D, up to 500°C, digital display	
Magnetic Stirrer	Witeg MS-500D, 80-1500 rpm, ceramic plate	
Digital Heating Mantle	1000ml capacity, up to 450°C, 0-1600 rpm stirring speed	
Orbital Electric Shaker	05765, Made in France	
Table Lab Shaker Incubator	70°C max temp, 400 rpm max speed, flask compatibility	
Electrical Centrifuge	12000/14000 rpm, 6×100ml capacity	
Rotary Evaporator	Complete set, 220V power supply	
Chromatography Tank	Pyrex glass with lid	
Kipp's Apparatus	Borosilicate glass, 250ml, 500ml, 1000ml	
Stop Watch	ACCUSPLIT A601X	
Automatic Water Distillation	4L/hr, Borosilicate glass	
Muffle Furnace	1400°C max, 150×150×150mm chamber size	
Water Dispenser	6/8 litres	
Organic Chemistry Model Kit	Old Nobby	
	2. Chemicals	
Chemical	Specification	
Acetic Acid	Laboratory Grade ( 500ml, 1 lt)	
Sulfuric Acid	Laboratory Grade ( 500ml, 1 lt)	

Hydrochloric Acid	Laboratory Grade (500ml, 1 lt)		
Ethanol	Laboratory Grade ( 500ml, 1 lt)		
Methanol	Laboratory Grade ( 500ml, 1 lt)		
Sodium Hydroxide	Laboratory Grade ( 500ml, 1 lt)		
Potassium Nitrate	Laboratory Grade ( 500ml, 1 lt)		
Copper Sulfate	Laboratory Grade ( 500ml, 1 lt)		
Silver Nitrate	Laboratory Grade ( 500ml, 1 lt)		
Potassium Dichromate	Laboratory Grade (500ml, 1 lt)		
Ammonia	Laboratory Grade ( 500ml, 1 lt)		
Tollen's Reagent	Laboratory Grade (500ml, 1 lt)		
Fehling's Solution	Laboratory Grade (500ml, 1 lt)		
Boric Acid	Laboratory Grade ( 500ml, 1 lt)		
Oxalic Acid	Laboratory Grade (500ml, 1 lt)		
Ferrous Sulfate	Laboratory Grade (500ml, 1 lt)		
Cobalt Chloride	Laboratory Grade ( 500ml, 1 lt)		
Strontium Nitrate	Laboratory Grade ( 500ml, 1 lt)		
Barium Nitrate	Laboratory Grade (500ml, 1 lt)		
Phenol	Laboratory Grade (500ml, 1 lt)		
Acetanilide	Laboratory Grade (500ml, 1 lt)		
Methyl Orange	Laboratory Grade (500ml, 1 lt)		
Phenolphthalein	Laboratory Grade (500ml, 1 lt)		
Starch Solution	Laboratory Grade (500ml, 1 lt)		
Sodium Sulfite	Laboratory Grade (500ml, 1 lt)		
Lithium Aluminum Hydride (LiAlH <sub>4</sub> )	Laboratory Grade ( 500ml, 1 lt)		
3. Glassware & Accessories			
Item	Specifications		
Test Tubes	Pyrex, 15mm outer diameter, 100mm length		
Test Tube Rack	Stainless steel, 12 holes		
Test Tube Holder	Stainless steel clamp with insulated handle		
Beakers	Pyrex, 5ml to 1000ml		
Conical Flasks	Pyrex, 25ml to 1000ml		
Graduated Cylinders	Pyrex, 10ml to 1000ml		

Volumetric Flasks	Pyrex, 10ml to 1000ml
Round Bottom Flasks	Pyrex, 10ml to 1000ml
Distillation Flasks	Pyrex, 100ml to 500ml
Liebig Condenser	200mm jacket length, Pyrex
Graduated Pipettes	Pyrex, 5ml to 50ml
Transfer Pipettes	Pyrex, 5ml to 20ml
Burettes	Pyrex, 50ml & 100ml
Burette Stand & Clamps	Stainless steel
Watch Glass	Pyrex, 60mm to 150mm
Funnels	Pyrex, 30mm to 75mm
Buchner Funnels	Porcelain, 40mm to 300mm
Separating Funnels	Pyrex, 250ml to 1000ml
Reagent Bottles	Glass, 100ml to 500ml
Wash Bottles	Plastic, 250ml
Gas Jars with Lid	Pyrex, 50mm diameter
Filtration Flasks	Pyrex, 125ml to 1000ml
Chromatography Paper	6-inch length, 0.75-inch width
TLC Plates	Glass/Aluminum back, $20$ cm $\times$ $20$ cm
Micro Pipettes	0.2μL-20μL, 20μL-1000μL
Porcelain China Dish	35ml to 100ml
Mortar & Pestle	Porcelain, 65ml to 400ml
Wire Gauze	Iron with asbestos
Tripod Stands	Stainless steel
Spatulas & Micro Spatulas	Stainless steel with PVC handle
Rubber & Wooden Corks	10mm to 50mm
Cork Borers	Stainless steel, complete set
Glass Stirring Rods	Pyrex, 6mm diameter
Capillary Tubes	Pyrex, 75mm length, 0.5mm diameter
Delivery Tubes	Pyrex, 6mm to 10mm outer diameter
Fusion Tubes	Pyrex, 50mm length, 2.5mm diameter
Aluminum Foil	Standard Lab Use

### Note:

- 1. The Bidder shall indicate in their offer,
  - a. detailed specifications of their offered product(s)/ solution(s),
  - b. standard and optional features,
- 2. The Unit Price, Total Bid Price, and Warranty & Support Service Price of the quoted items shall be indicated as per the given format in Form G.

# 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?	
<ul> <li>Form A: Bid Submission Form</li> </ul>	
<ul> <li>Form B: Joint Venture/ Consortium/ Association Information Form</li> </ul>	
<ul> <li>Form C: Bidder Information Form</li> </ul>	
<ul> <li>Form D: Qualification Form</li> </ul>	
✤ Form E: Bid Proposal Form	
<ul> <li>Form F: Specifications Compliance Form</li> </ul>	
<ul> <li>Form G: Price Schedule Form</li> </ul>	
Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?	

## 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:	PMU-HED/Science Lab/NMDs/2025		

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

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

- a) is not under procurement prohibition by any of the Government / Semigovernment / 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 PMU-HED, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the PMU-HED.

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 PMU-HED.

We offer to supply the goods and related services in conformity with the Bidding documents, including the PMU-HED 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 PMU-HED accept this Bid.

S	i	g	n	а	t	u	r	е	:
Date:									
Title:									
Name:									



### 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:	PMU-HED/Science Lab/NMDs/2025		

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

Νο	<b>Name of Partner and contact information</b> (address, telephone numbers, fax numbers, e- mail address)	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]

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**  $\square$  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 PMU-HED 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)

Name of Bidder:	[Insert Name of Bidder]	Date :	Select date
ITB reference:	PMU-HED/Science Lab/NMDs/2025		

Legal name of Bidder	[Complete]
Legal address & Branch Offices	[Complete]
SECP Registration No.	[Complete]
National Tax Number (NTN)	[Complete]
Sales Tax Number (STRN)	[Complete]
Year of registration	[Complete]
Location of Office(s)	[Complete]
Principal(s) Office Address in Pakistan	
Warehouse Address in Pakistan	
Bidder's Authorized Representative Information	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
Are you a PMU-HED registered vendor?	□ Yes □ No If yes, [insert PMU-HEDvendor number]
Countries of operation	[Complete]
No. of full-time employees	[Complete]
No. of Technical Staff	[Complete]
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 PMU-HED 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 configuration and Training/Testing plan for the required and quoted items to PMU-HED after the award of Contract.
	3.	Certificate of Registration of the business.
	4. 5.	Certificate of Registration with FBR Principals' Authorization Letter in favor of Bidder to participate in this Tender.
	6.	A proof document that Quoted product is ranked or rated in Gartner/ Forester/ IDC/ GetApp/ International-Client/University-Collaboration
	7.	A proofing document confirming supply of same or similar product, of this magnitude to various clients/ customers in Pakistan.
	8.	Proven records of no less than the required Projects of similar nature/ value/ complexity in which delivery and services were extended.
	9.	A proofing document for online support services for acquired number of exams remain available for 3 years.
	10.	Full detailed description of the specifications of the proposed items in addition to catalogues clearly showing the proposed specifications responding to the requirements.
	11.	Supporting photos of the proposed.
	12.	Latest Audited Financial Statements (Income Statement and
	Bal	ance 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]	Dat e:	Select date
ITB reference:	PMU-HED/Science Lab/NMDs/2025		

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

### **Previous Relevant Experience**

Please list all Projects successfully completed in the last 3 years, covering following aspects; a) Scope of the projects/ assignments.

- b) Activities performed for the successful completion of the project.
- c) Support Services Contracts in hand with SLA for the supplied goods.

List only those assignments for which the Bidder was legally contracted or subcontracted 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 PMU-HED.

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

□ Non-performing contracts did not occur during the last 3 years

□ 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
	Ir S	nformation from Balar heet	nce
Total Assets (TA)			
Total Liabilities (TL)			
Current Assets (CA)			
Current Liabilities (CL)			
	Informatior	n from Income Statem	pent
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.

# **Tax Payment Standing**

### Annual Tax Paid by the Bidder

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

### Annual Tax Paid by the Principal in Pakistan (if applicable)

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

# Form E: Technical Proposal Form

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

Name of Bidder:	[Insert Name of Bidder]	Date :	Select date
ITB reference:	PMU-HED/Science Lab/NMDs/2025		

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

#### SECTION 1: Qualification, capacity and expertise

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

#### **SECTION 2: Management Structure and Key Personnel**

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

### Format for CV of Proposed Key Personnel

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

#### 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 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.
- 4.2 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: Support Services**

This section should demonstrate the Bidder's responsiveness to the online support services for acquired number of exams remain available for 3 years.

## Form F: Technical 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:	PMU-HED/Science Lab/NMDs/2025		

The Bidder's Bid should be organized to follow this format of the Technical Specification Compliance Form.

Where the bidder has claimed the required features or functionalities as available Outof-the-Box, the Technical Committee may ask the bidder to demonstrate any of such features and/ or functionality during Presentation as part of Technical Evaluation.

### 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]	Dat e:	Select date
ITB reference:	PMU-HED/Science Lab/NMDs/2025		

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

We,

\_

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

Quoted Items in compliance to the Technical Specifications as referred in Section – 5a and Section – 5b, whether Out-of-the- Box, Customization, or 3 <sup>rd</sup> Party		Quant ity (a)	Unit Price [in Rs.] (b)	GST [in Rs.] (c)	Total Price [in Rs.] d=a*[b +c]
a.					
b.					
c.					
a.					
b.					
c.					
d.					
e.					
f.					

Total Bid Value in Figures (with all taxes & duties for items above):

Total Bid Value in words (including all items above):

Name & Designation of Authorized	
Person:	
Signature:	(Please affix company
stamp here)	

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

### **Annex – I:** Integrity Pact

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

### DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC PAYABLE BY THE SUPPLIER OF GOODS, SERVICES & WORK IN CONTRACTS WORTH RS. 20.0 MILLION OR MORE

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

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

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

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

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

Without limiting the generality of the forgoing, \_\_\_\_\_\_\_ represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any nature or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultant fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatever from GoP, except that which has been expressly declared pursuant hereto.

\_\_\_\_\_\_ certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

\_\_\_\_\_\_\_accept full responsibility and strict liability for making any false declaration, not making full discloser, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard,

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

[Buyer] [Seller / Supplier]

# Annex – II: Draft Contract Sample

Available at HED website at www.hed.gkp.pk