

PIR MEHR ALI SHAH
**ARID AGRICULTURE UNIVERSITY RAWALPINDI
(PMAS-AAUR)**



Tender Inquiry No.2025-26/010-P

BIDDING DOCUMENT

FOR

**PROCUREMENT OF EQUIPMENT/TECHNOLOGIES FOR TISSUE
CULTURE UNDER THE PSDP FUNDED PROJECT ENCIB**

**PMAS-AAUR,
MURREE ROAD, RAWALPINDI**

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Summary Description

Summary

Invitation for Bids

PART 1 – BIDDING PROCEDURES

Section I. Instructions to Bidders (ITB)

This Section provides information to help Bidders prepare their bids. Information is also provided on the submission, opening, and evaluation of e-bids and on the award of Contracts. **Section I contains provisions that are to be used without modification.**

Section II. Bid Data Sheet (BDS)

This Section includes provisions that are specific to each procurement and that supplement Section I, Instructions to Bidders.

Section III. Evaluation and Qualification Criteria

This Section specifies the criteria to determine the lowest evaluated bid and the qualifications of the Bidder to perform the contract.

Section IV. Bidding Forms

This Section includes the forms for the Bid Submission, Price Schedules, Bid Security, and the Manufacturer's Authorization to be submitted completed by the Bidder and submitted as part of his Bid.

Section V. Eligible Countries

This Section contains information regarding eligible countries.

Section VI. Special Condition of Contract

PART 2 – SCHEDULE OF REQUIREMENTS

Section VII. Schedule of Requirements

This Section includes the List of Services, the Delivery and Completion Schedules and the Technical Specifications that describe the Related Services to be procured.

**PROCUREMENT OF EQUIPMENT/TECHNOLOGIES FOR TISSUE
CULTURE UNDER THE PSDP FUNDED PROJECT ENCIB**

**Project: Establishment of National Center of Industrial
Biotechnology for Pilot Manufacturing of Bio products
using Synthetic Biology and Metabolic Engineering
Technologies PMAS-Arid Agriculture University,
Rawalpindi (PMAS-AAUR)**

**Purchaser: PMAS-Arid Agriculture University, Rawalpindi
(PMAS-AAUR)**

Country: PAKISTAN



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TENDER NOTICE

Sealed bids are invited on FOR University main campus basis from reputable and well established firms/companies/sole proprietor/general order suppliers/persons who are authorized partners (Distributors, Resellers or have Authorized Letter from mentioned Partners of reputable national/ international companies), having well past experience, financial position, registered with Sales Tax and Income Tax Departments for:

Procurement of Equipment/Technologies for Tissue Culture under the PSDP funded Project ENCIB

The interested bidders shall submit their bids (Soft Form “on E-PAD System” & Hard Copy in the DPIC) comprise in single stage two envelope bidding procedure (lot wise) according to PPRA rule 38 (2a). The firms/companies are requested to submit their offers with company profile and clients list with 02% Earnest Money of the estimated price in favor of Treasurer, Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi, latest by 15-12-2025 by 1100 hours in the office of the Directorate of Procurement & Inventory Control (DPIC) of the University. The tender will be opened on the same day at 11:30 hours in the same office, in the presence of those bidders who may wish to participate. The bidder shall download the bidding documents from the website of the Authority “(www.uaar.edu.pk), PPRA as well as EPAD” and participate in the procurement process without paying any cost or fee. In case of official holiday on the day of submission, next day will be treated as closing date. The successful bidder to furnish a performance security/performance guarantee which shall not exceed 10% of contract price as per Punjab PPRA Rule 56 in the form and period specified in the Bidding Document. The rates must be quoted strictly in accordance with specifications of Bidding Documents valid for 90 days. The conditional tender will not be accepted. **The firms/companies/sole proprietor/general order suppliers/persons have to submit along with tender bid an affidavit that the company is an active tax payer and not involved in litigation or black listed.** The University may reject all bids/proposals at any time prior to the acceptance of a bid or proposal as per PPRA Punjab rule 35, however upon bidder request the ground of rejection will be communicated to the concerned but no justification will be given as per PPRA rule 35 (2).

CHAIRMAN
PURCHASE COMMITTEE

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PART 1 – Bidding Procedures

Section I. Instructions to Bidders

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Section I. Instructions to Bidders

A. General

- 1. Scope of Bid**
- 1.1 In connection with the Tender Notice, **specified in the Bid Data Sheet (BDS)**, the Purchaser, **as specified in the BDS**, issues these Bidding Documents for the provision of Goods, Equipment and Works incidental thereto as specified in Section VI, Schedule of Requirements.
- 1.2 Throughout these Bidding Documents:
- (a) "Authorized Representative" means any representative appointed, from time to time, by the Client, the Purchaser or the Contractor.
 - (b) "Availability and Reliability" means the probability that a component shall be operationally ready to perform its function when called upon at any point in time.
 - (c) "Authority" means PMAS-Arid Agriculture University Rawalpindi.
 - (d) "Bidder" means the Firm/Company/Supplier/Distributors fulfilling the eligibility criteria and participating in the bidding for provision of goods and equipment as per provision of bid document/ contract.
 - (e) "Contractor" means the person/firm/company whose Tender has been accepted and awarded letter of intent followed by the Contract by the Purchaser.
 - (f) "Purchaser" means PMAS-Arid Agriculture University Rawalpindi, for the purposes of the Contract.
 - (g) "Contract" means the agreement entered into between the Purchaser and the Contractor, as recorded in the Contract Form signed by the parties, including all Schedules and Attachments thereto and all documents incorporated by reference therein.
 - (h) "Defects Liability Period" means the warranty period following the taking over, during which the Contractor is responsible for making good, defects and damages in Goods, Equipment and Works provided, under the Contract.
 - (i) "Force Majeure" means an event beyond the control of the

Contractor and not involving the Contractor's fault or negligence and not foreseeable. Such events may include, but are not restricted to, wars, revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

- (j) "Goods" & "Equipment" means equipment, machinery, and/or other materials which the Contractor is required to supply to the Purchaser under the Contract.
- (k) "Support Services" means installation, configuration, deployment, commissioning, testing, training, support, after sale service, etc. of Goods and other such obligations which the Contractor is required to provide to the Purchaser under the Contract.
- (l) "Origin" shall be considered to be the place where the Goods are produced or from where the Services are provided. Goods are produced when, through manufacturing, processing or assembling of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components. The origin of Goods and Services is distinct from the nationality of the Contractor.
- (m) "Delivery Acceptance Certificate" means the certificate to be issued by the Client to the Contractor, in accordance with the Contract.
- (n) "Works" means work to be done by the Contractor under the Contract.
- (o) "Inventory List" means a list of equipment/ supplies bearing details of make/ model/quantity/unit price/warranty/location of supply/ installation/ manufacturer/authorized workshop, duly signed by the Contractor and verified by the Client.
- (p) the term "in writing" means communicated in written form (e.g. by mail, email, etc.) with proof of receipt;
- (q) if the context so requires, "singular" means "plural" and vice versa; and
- (r) "day" means calendar day.

2. Eligible Bidders

2.1. A Bidder may be a firm that is a locally registered private entity, who itself is a Manufacturer/ Principal or an authorized representative of a Manufacturer/ Principal or any combination of

such entities in the form of a Joint Venture (JV) or consortium under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a Joint Venture or Consortium, all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms. The JV/ Consortium shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV/ Consortium during the bidding process and, in the event the JV/ Consortium is awarded the Contract, during contract execution. Unless specified in the BDS, there is no limit on the number of members in a JV/ Consortium.

- 2.2. A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this bidding process, if the Bidder:
- (a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or
 - (b) receives or has received any direct or indirect subsidy from another Bidder; or
 - (c) has the same legal representative as another Bidder; or
 - (d) participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which such Bidder is involved; or
 - (e) any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the bid; or
 - (f) any of its affiliates has been hired (or is proposed to be hired) by the Purchaser for the Contract implementation; or
 - (g) has a close business or family relationship with a professional staff of the Purchaser who: (i) are directly or indirectly involved in the preparation of the bidding documents or specifications of the contract, and/or the bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract.

- 2.3. A Bidder shall not be eligible to participate if under suspension from bidding by the Purchaser as the result of previous contract or blacklisted by organizations **specified in the BDS**.
- 2.4. A Bidder shall provide such evidence of eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.
- 3. Eligible Goods, Works and Related Services**
- 3.1 All the Goods, Equipment and Works to be delivered under the Contract and financed by the Purchaser may have their origin in any country in accordance with Section V, Eligible Countries.
- 3.2 For purposes of this Clause, the term “goods”, “equipment”, “works” and “services” includes as specified in the Schedule of Requirements.
- 3.3 The term “origin” means the country where the goods, equipment, works and services have been grown, cultivated, produced, performed, manufactured, developed, assembled, integrated or processed.

B. Contents of Bidding Document

- 4. Sections of Bidding Document**
- 4.1. The Bidding Documents consist of Parts 1 and 2, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 7.

PART 1 Bidding Procedures

- Section I. Instructions to Bidders (ITB)
- Section II. Bidding Data Sheet (BDS)
- Section III. Evaluation and Qualification Criteria
- Section IV. Bidding Forms
- Section V. Eligible Countries
- Section VI. Special Condition of Contract

PART 2 Schedule of Requirements

- Section VII. Schedule of Requirements
- 4.2. The Invitation for Bids issued by the Purchaser is not part of the Bidding Document.
- 4.3. Unless obtained directly from the Purchaser **as specified in BDS**, the Purchaser is not responsible for the completeness of the document, responses to requests for clarification, the Minutes of

the pre-Bid meeting (if any), or Addenda to the Bidding Document in accordance with ITB 7. In case of any contradiction, documents obtained directly from the Purchaser shall prevail.

- 4.4. The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents and to furnish with its Bid all information or documentation as is required by the Bidding Documents.

5. Mechanism of Blacklisting and Deregistration

- 5.1 the Purchaser reserves the right to blacklist or deregister may impose Permanent or temporary bar for participation in the procurement proceedings respectively the bidder as follows:-

(a) Blacklisting: The bidder who

- (i). Fail to perform contractual obligations or the performance under the contract is not up to the mark;
- (ii). Found to be indulging in corrupt or fraudulent practices;
- (iii). Commit an action causing or liable to cause loss to the University;
- (iv). Furnish false information;

(b) Deregistration: The bidder who

- (i) Submit bid as employee of the firm, or proprietor or shareholder being an employee of the University;
- (ii) Show non-responsive attitude in case of summoning by the University.
- (iii) Back out from their offers after opening of tender;
- (iv). Misbehave with the University employee;

- 5.2 The bidder shall provide affidavit that the firm was not declared blacklisted or deregistered by any of the Federal and Provincial Government institution.

6. Clarification of E-Bidding Documents

- 6.1 A Bidder requiring any clarification of the Bidding Document shall contact the Purchaser in writing at the Purchaser's address **specified in the BDS**. The Purchaser will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of request for clarification within a period **specified in the BDS**. The Purchaser shall forward copies of its response to all Bidders who have acquired the Bidding Documents in accordance with ITB 4.3, including a description of the inquiry but without identifying its source. Should the clarification result in changes to the essential elements of the Bidding Documents, the Purchaser shall amend the Bidding Documents following the procedure under ITB 7 and ITB 21.2.

- 7. Amendment of Bidding Document**
- 7.1 At any time prior to the deadline for submission of bids, the Purchaser may for any reason, whether at its own initiative or in response to a clarification requested by bidders, amend the Bidding Documents by issuing addenda.
- 7.2 Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all who have obtained the Bidding Documents from the Purchaser in accordance with ITB 4.3.
- 7.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, the Purchaser may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB 21.2.

C. Preparation of Bids

- 8. Cost of Bidding** 8.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Purchaser shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- 9. Language of Bid** 9.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in the language **specified in the BDS**. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages into the language **specified in the BDS**, in which case, for purposes of interpretation of the Bid, such translation shall govern.
- 10. Documents Comprising the Bid** 10.1 The Bid shall comprise the following:
- (a) Letter of Bid in accordance with ITB 11;
 - (b) completed schedules, in accordance with ITB 11 and 13
 - (c) Bid Security, in accordance with ITB 18.1;
 - (d) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 19.2;
 - (e) documentary evidence in accordance with ITB 16 establishing the Bidder's qualifications to perform the contract if its bid is accepted;
 - (f) documentary evidence in accordance with ITB 16 establishing the Bidder's eligibility to bid;

- (g) documentary evidence in accordance with ITB 15, that the Goods, Equipment and Works to be provided by the Bidder are of eligible origin;
- (h) documentary evidence in accordance with ITB 15 and 29, that the Goods, Equipment and Works conform to the Bidding Documents;
- (i) any other document **required in the BDS.**

10.2 In addition to the requirements under ITB 10.1, bids submitted by a JV/ Consortium shall include a copy of the Joint Venture Agreement/ Consortium Letter entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement/ Consortium in the event of a successful bid shall be signed by all members and submitted with the bid, together with a copy of the proposed Agreement.

10.3 The Bidder shall furnish in the Letter of Bid information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

11. Letter of Bid and Price Schedules

11.1 The Letter of Bid and Price Schedules shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 19.2. All blank spaces shall be filled in with the information requested.

12. Alternative Bids

12.1 Unless otherwise **specified in the BDS**, alternative bids shall not be considered.

13. Bid Prices and Discounts

13.1 The prices and discounts quoted by the Bidder in the Letter of Bid and in the Price Schedules shall conform to the requirements specified below.

13.2 All Goods, Equipment and Works must be listed and priced as per Price Schedules given in Section IV-Bidding Forms.

13.3 The price to be quoted in the Letter of Bid in accordance with ITB 11.1 shall be the total price of the bid, excluding any discounts offered.

13.4 The Bidder shall quote any discounts and indicate the methodology for their application in the Letter of Bid, in accordance with ITB 11.1.

13.5 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account, **unless otherwise specified in the BDS.**

13.6 Bids are invited for complete *or for any combination of lots (packages)* of Goods, Equipment and Works mentioned in the Bidding Document. *Unless **as specified in BDS**, prices quoted shall correspond to 100% of the items specified for each lot and to 100% of the quantities specified for each item of a lot.* Prices shall be quoted as specified in Price Schedule included in Section IV, Bidding Forms. The dis-aggregation of price components is required solely for the purpose of facilitating the comparison of bids by the Purchaser. This shall not in any way limit the Purchaser's right to contract on any of the terms offered. In quoting prices, the Bidder shall be free to use transportation through carriers registered in any eligible country, in accordance with Section V, Eligible Countries. Similarly, the Bidder may obtain insurance services from any eligible country in accordance with Section V, Eligible Countries for Services rendered in the Purchaser's Country.

(i) the price of the Goods, Equipment and Works shall be quoted separately, including or excluding GST/PST on the provision of such Goods & Equipment.

(ii) the price for inland transportation, insurance, and other local services required to convey the products to their final destination as **specified in the BDS**.

14. Currencies of Bid and Payment

14.1 The currency of the bid and the currency of payments shall be **as specified in BDS**. The Bidder shall quote in the currency of the Purchaser's Country, unless otherwise **specified in the BDS**.

15. Documents Establishing the Eligibility and Conformity of the Goods, Works & Services

15.1 To establish the eligibility of the Goods, Equipment and Works in accordance with ITB 3, Bidders shall complete the country of origin declarations in the Price Schedule Forms, included in Section IV, Bidding Forms.

15.2 To establish the conformity of the Goods, Equipment and Works to the Bidding Documents, the Bidder shall furnish as part of its Bid the documentary evidence that the Goods, Equipment and Works conform to the specifications and standards specified in Section VII, Schedule of Requirements.

15.3 The Bidder shall also furnish a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the delivered Goods during the period **specified in the BDS** following commencement of the use of the delivered goods by the Purchaser.

15.4 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Purchaser in the Schedule of Requirements, are intended to

be descriptive only and not restrictive. The Bidder may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Purchaser's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Section VII, Schedule of Requirements.

**16. Documents
Establishing the
Eligibility and
Qualifications
of the Bidder**

16.1 To establish Bidder's eligibility in accordance with ITB 2, Bidders shall complete the Letter of Bid, included in Section IV, Bidding Forms.

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

- (a) that, if **required in the BDS**, a Bidder that does not manufacture or produce the Goods or Equipment it offers to supply shall submit the Manufacturer's/ Principal's Authorization using the form included in Section IV, Bidding Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods/ Equipment on behalf of Manufacturer/ Principal to the Purchaser.
- (b) that the Bidder and its Manufacturer/ Principal meets each of the qualification criterion specified in Section III, Evaluation and Qualification Criteria.

**17. Period of
Validity of Bids**

17.1 Bids shall remain valid for the period **specified in the BDS** after the bid submission deadline date prescribed by the Purchaser in accordance with ITB 21.1. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.

17.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Purchaser may request bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB Clause 18, it shall also be extended for a corresponding period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its bid, except as provided in ITB 17.3.

17.3 If the award is delayed by a period exceeding 30 days beyond the expiry of the initial bid validity, the Contract price shall be determined as follows:

- (a) In the case of fixed price contracts, the Contract price shall be the bid price adjusted by the factor **specified in the BDS**.

(b) In the case of adjustable price contracts, no adjustment shall be made.

(c) In any case, bid evaluation shall be based on the bid price without taking into consideration the applicable correction from those indicated above.

18. Bid Security

18.1 The Bidder shall furnish as part of its bid, a bid security, as **specified in the BDS**, in original form in the amount and currency **specified in the BDS**.

18.2 If a bid security is specified pursuant to ITB 18.1, the bid security shall be in any of the following forms at the Bidder's option:

(a) an unconditional guarantee issued by a bank or financial institution (such as an insurance, bonding or surety company);

(b) an irrevocable letter of credit;

(c) a cashier's or certified check;

(d) CDR/ Pay Order/ Demand Draft in the name of Treasurer, PMAS-AAUR; or

(e) another security **specified in the BDS**.

from a reputable and eligible source. In the case of a bank guarantee, the bid security shall be submitted either using the Bid Security Form included in Section IV, Bidding Forms, or in another substantially similar format approved by the Purchaser prior to bid submission. The bid security shall be valid for thirty (30) days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 17.2

18.3 If a Bid Security is specified pursuant to ITB 18.1, any bid not accompanied by a substantially responsive Bid Security shall be rejected by the Purchaser as non-responsive.

18.4 If a Bid Security is specified pursuant to ITB 18.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the contract and furnishing the Performance Security pursuant to ITB 40.

18.5 The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the contract and furnished the required performance security.

18.6 The Bid Security may be forfeited or the Bid Securing Declaration executed:

- (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid, or any extension thereto provided by the Bidder ; or
- (b) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 39; or
 - (ii) furnish a performance security in accordance with ITB 40.

18.7 The Bid Security or Bid- Securing Declaration of a JV must be in the name of the JV that submits the bid. If the JV has not been legally constituted into a legally enforceable JV at the time of bidding, the bid security or Bid-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITB 2.1 and ITB 10.2.

19. Format and Signing of Bid

19.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB 10 and clearly mark it "ORIGINAL.". In addition, if required, the Bidder shall submit copies of the bid, in the number **specified in the BDS** and clearly mark them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.

19.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation **as specified in the BDS** and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid where entries or amendments have been made shall be signed or initialed by the person signing the bid.

19.3 In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

19.4 Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.

D. Submission and Opening of Bids

20. Sealing and Marking of Bids

- 20.1 The Bidder shall enclose the original and all copies (if required) of the bid, in separate sealed envelopes, duly marking the envelopes as “ORIGINAL”, and “COPY.” These envelopes containing the original and the copies shall then be enclosed in one single envelope/ package.
- 20.2 The inner and outer envelopes/ packages shall:
- (a) bear the name and address of the Bidder;
 - (b) be addressed to the Purchaser in accordance with ITB 23.1;
 - (c) bear the specific identification of this bidding process indicated in ITB 1.1; and
 - (d) bear a warning not to open before the time and date for bid opening.
- 20.3 If all envelopes are not sealed and marked as required, the Purchaser will assume no responsibility for the misplacement or premature opening of the bid.

21. Deadline for Submission of Bids

- 21.1 Bids must be received by the Purchaser at the address and no later than the date and time **as specified in the BDS** through registered post or in person. In case of registered post, it is the responsibility of Bidder to assure the timely delivery of bid. Any bid received by the Purchaser after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.
- 21.2 The Purchaser may, as per Punjab PPRA Rules, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with ITB 7, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

22. Late Bids

- 22.1 The Purchaser shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB 21. Any bid received by the Purchaser after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.

23. Withdrawal, Substitution, and Modification of Bids

- 23.1 A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization (the power of attorney) in accordance with ITB 19.2, (except that withdrawal notices do not require copies). The

corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:

- (a) prepared and submitted in accordance with ITB 19 and 20 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” or “MODIFICATION;” and
- (b) received by the Purchaser prior to the deadline prescribed for submission of bids, in accordance with ITB 21.

23.2 Bids requested to be withdrawn in accordance with ITB 23.1 shall be returned unopened to the Bidders.

23.3 No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Letter of Bid or any extension thereof.

24. Bid Opening

24.1 Except as in the cases specified in ITB 22 and 23, the Purchaser shall publicly open and read out in accordance with ITB 24.3 all bids received by the deadline at the date, time and place **specified in the BDS** in the presence of Bidders’ designated representatives who choose to attend.

24.2 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. If the withdrawal envelope does not contain a copy of the “power of attorney” confirming the signature as a person duly authorized to sign on behalf of the Bidder, the corresponding bid will be opened. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked “SUBSTITUTION” shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at bid opening. Envelopes marked “MODIFICATION” shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Bid opening. Only bids that are opened and read out at Bid opening shall be considered further.

- 24.3 The Purchaser shall prepare a record of the bid opening that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, or modification. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record.

E. Evaluation and Comparison of E-Bids

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| 25. Confidentiality | <p>25.1 Any effort by a Bidder to influence the Purchaser in the evaluation or contract award decisions may result in the rejection of its Bid.</p> <p>25.2 Notwithstanding ITB 25.1, from the time of bid opening to the time of Contract Award, if any Bidder wishes to contact the Purchaser on any matter related to the bidding process, it should do so in writing.</p> |
| 26. Clarification of Bids | <p>26.1 To assist in the examination, evaluation, comparison of the bids, and qualification of the Bidders, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder in respect to its Bid and that is not in response to a request by the Purchaser shall not be considered. The Purchaser's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Purchaser in the Evaluation of the bids, in accordance with ITB 30.</p> <p>26.2 If a Bidder does not provide clarifications of its bid by the date and time set in the Purchaser's request for clarification, its bid may be rejected.</p> |
| 27. Deviations, Reservations, and Omissions | <p>27.1 During the evaluation of bids, the following definitions apply:</p> <ul style="list-style-type: none"> (a) "Deviation" is a departure from the requirements specified in the Bidding Documents; (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Documents; and (c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Documents |

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| 28. Determination of Responsiveness | <p>28.1 The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself, as defined in ITB 10.</p> <p>28.2 A substantially responsive Bid is one that meets the requirements of the Bidding Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:</p> <ul style="list-style-type: none"> (a) if accepted, would <ul style="list-style-type: none"> (i) affect in any substantial way the scope, quality, or performance of the Goods, Equipment and Works specified in the Contract; or (ii) limit in any substantial way, inconsistent with the Bidding Documents, the Purchaser's rights or the Bidder's obligations under the Contract; or (b) if rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids. <p>28.3 The Purchaser shall examine the technical aspects of the bid submitted in accordance with ITB 15 and ITB 16, in particular, to confirm that all requirements of Section VII, Schedule of Requirements have been met without any material deviation or reservation, or omission.</p> <p>28.4 If a bid is not substantially responsive to the requirements of Bidding Documents, it shall be rejected by the Purchaser and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.</p> |
| 29. Non-conformities, Errors and Omissions | <p>29.1 Provided that a Bid is substantially responsive, the Purchaser may waive any nonconformities in the Bid.</p> <p>29.2 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, 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 of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.</p> <p>29.3 Provided that a bid is substantially responsive, the Purchaser shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component.</p> |

30. Correction of Arithmetical Errors

30.1 Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:

- (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 the Purchaser 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 subject to (a) and (b) above.

30.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 30.1, shall result in the rejection of the Bid.

31. Margin of Preference

31.1 **Unless otherwise specified in the BDS**, a margin of preference shall not apply.

32. Evaluation of E-Bids

32.1 The Purchaser shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.

32.2 To evaluate a Bid, the Purchaser shall consider the following:

- (a) evaluation will be done for *Items or lots (packages) or complete* scope of Goods, Equipment and Works, as **specified in the BDS**; and the Bid Price as quoted in accordance with ITB 13;
- (b) price adjustment for correction of arithmetic errors in accordance with ITB 30.1;
- (c) evaluation factors are specified in Section III, Evaluation and Qualification Criteria;

33. Comparison of Bids

33.1 The Purchaser shall compare the evaluated prices of all substantially responsive bids established in accordance with ITB 34.2 to determine the highest scoring evaluated bid.

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| 34. Qualification of the Bidder | <p>34.1 The Purchaser shall determine to its satisfaction whether the Bidder that is selected as having submitted the highest scoring evaluated and substantially responsive bid meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.</p> <p>34.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 16.</p> |
| 35. Purchaser's Right to Accept Any Bid, and to Reject Any or All Bids | <p>35.1 The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.</p> |

F. Award of Contract

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| 36. Award Criteria | <p>36.1 Subject to ITB 34.1, the Purchaser shall award the Contract to the Bidder whose bid has been determined to be the highest scoring evaluated bid and is substantially responsive to the Bidding Documents, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.</p> |
| 37. Purchaser's Right to Vary Quantities at Time of Award | <p>37.2 At the time the Contract is awarded, the Purchaser reserves the right to increase or decrease the quantity of Goods, Equipment and Works originally specified in Section VI, Schedule of Requirements, provided this does not exceed the percentages specified in the BDS, and without any change in the unit prices or other terms and conditions of the bid and the Bidding Documents.</p> |
| 38. Notification of Award | <p>38.1 Prior to the expiration of the period of bid validity, the Purchaser shall notify the successful Bidder, in writing, that its Bid has been accepted. The notification letter called the "Letter of Acceptance/Purchase Order" shall specify the sum that the Purchaser will pay the Supplier in consideration of providing the Goods, Equipment and Works.</p> <p>38.2 Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.</p> |
| 39. Signing of Contract | <p>39.1 Promptly after notification, the Purchaser shall send the successful Bidder the Contract Agreement.</p> <p>39.2 Within fifteen (15) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Purchaser as specified in the BDS.</p> |

39.3 Notwithstanding ITB 38.2 above, in case signing of the Contract Agreement is prevented by any export restrictions attributable to the Purchaser, to the country of the Purchaser, or to the use of the products/goods, systems or services to be supplied, where such export restrictions arise from trade regulations from a country supplying those products/goods, systems or services, the Bidder shall not be bound by its bid, always provided however, that the Bidder can demonstrate to the satisfaction of the Purchaser that signing of the Contract Agreement has not been prevented by any lack of diligence on the part of the Bidder in completing any formalities, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract.

**40. Performance
Security/
Performance
Guarantee**

40.1 Within fifteen (15) days of the receipt of notification of award from the Purchaser, the successful Bidder, if required, shall furnish, **as specified in the BDS**, the Performance Security/ Performance Guarantee (as per Clause 2(w) and Clause 56 of Punjab PPRA Rules) using the Performance Security Form included in Section IV, Bidding Forms, **OR** in another form acceptable to the Purchaser as mentioned in ITB 40.3.

40.2 Failure of the successful Bidder to submit the above-mentioned Performance Security/ Performance Guarantee or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Purchaser may award the Contract to the next highest scoring evaluated Bidder, whose bid is substantially responsive and is determined by the Purchaser to be qualified to perform the Contract satisfactorily.

40.3 In lieu of provision at ITB 40.1 above, the Purchaser can retain an amount as performance security/ performance guarantee from bill /payment of every installment made to the Contractor according to Punjab PPRA Rules and **as specified in BDS**.

**41. Inspections and
Tests**

41.1 The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser. SCC and the Technical Specifications shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

41.2 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery, and/or at the Goods' final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and

assistance, including access to drawings and production data, shall be furnished to the inspectors at no Section VI. General Conditions of Contract charge to the Purchaser.

- 41.3 Should any inspected or tested Goods fail to conform to the Specifications, the Purchaser may reject the Goods, and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.
- 41.4 The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival in the Purchaser's country shall in no way be limited or waived by reason of the Goods having previously been inspected, tested, and passed by the Purchaser or its representative prior to the Goods' shipment from the country of origin.
- 41.5 Nothing in GCC Clause 40 shall in any way release the Supplier from any warranty or other obligations under this Contract.

42. Packing

- 42.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
- 42.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in BDS, and in any subsequent instructions ordered by the Purchaser.

43. Delivery and Documents

- 43.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in the Schedule of Requirements. The details of shipping and/or other documents to be furnished by the Supplier are specified in SCC.
- 43.2 For purposes of the Contract, "CFR," "CPT", the terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of Incoterms published by the International Chamber of Commerce, Paris.
- 43.3 Documents to be submitted by the Supplier are specified in BDS.

44. Insurance

- 44.1 The Goods supplied under the Contract shall be fully insured in a freely convertible currency against loss or damage incidental to

manufacture or acquisition, transportation, storage, and delivery in the manner specified in the BDS.

44.2 Where delivery of the Goods is required by the Purchaser on a CFR or CPT basis, the Purchaser shall arrange and pay for cargo insurance, naming the supplier as beneficiary.

45. Transportation

45.1 Where the Supplier is required under Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

45.2 Where the Supplier is required under Contract to deliver the Goods CFR or CPT, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

45.3 Where the Supplier is required under the Contract to transport the Goods to a specified place of destination within the Purchaser's country, defined as the Project Site, transport to such place of destination in the Purchaser's country, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price.

44.4 Where the Supplier is required under Contract to deliver the Goods CFR or CPT, no restriction shall be placed on the choice of carrier. Where the Supplier is required under Contract

(a) to deliver the Goods FOB or FCA, and

(b) to arrange on behalf and at the expense of the Purchaser for international transportation on specified carriers or on national flag carriers of the Purchaser's country, the Supplier may arrange for such transportation on alternative carriers if the specified or national flag carriers are not available to transport the Goods within the period(s) specified in the Contract.

46. Incidental Services

46.1 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in BDS:

(a) performance or supervision of on-site assembly and/or start-up of the supplied Goods;

- (b) (b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;
- (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- (e) training of the Purchaser's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

46.2 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

47. Spare Parts

47.1 As specified in section VII Schedule Requirements, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- (a) such spare parts as the Purchaser may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
- (b) in the event of termination of production of the spare parts:
 - (i) advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
 - (ii) following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

48. Applicable Law

48.1 The Contract shall be interpreted in accordance with the laws of the Purchaser's country, unless otherwise specified in SCC.

49. Notices

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

50. Payment Terms 50.1 Subject to ITB 39 and ITB 40, the payments will be made after complete delivery of Goods and Services in subsequent to fulfillment of codal formalities.

51. Warranty 51.1 Warranty as per standard. The Supplier shall, in addition, comply with the guarantees associated with the performance and/or conformance specifications specified under the Contract. If, for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall, at its discretion, either:

(a) make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance / conformance tests.

or

(b) pay liquidated damages to the Purchaser with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be 1.5% per week up to a maximum of 06% of the total Contract price.

Section II. Bid Data Sheet (BDS)

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

ITB Clause Reference

A. General

- ITB 1.1** The Purchaser is PMAS-AAUR represented by:
Chairman Purchase Committee, PMAS-AAUR.
- ITB 1.1** **Procurement of Equipment/Technologies for Tissue Culture under the PSDP funded Project ENCIB**

- ITB 2.3** Submit affidavit regarding bidders should not Blacklisted from PMAS-Arid Agriculture University Rawalpindi and PPRA.

- ITB 4.3** The Bidding Document should be downloaded free of cost from the relevant authorities' websites:

**Directorate of Procurement & Inventory Control,
PMAS-Arid Agriculture University, Shamsabad, Murree Road,
Rawalpindi, Pakistan**

B. Contents of Bidding Documents

- ITB 5.1** If required: For Clarification of bid purposes only, A pre-bid meeting will be held at below mentioned address.

The Purchaser's address is:

Prof. Dr. Abida Raza, Professor/Project Director, ENCIB

Building:

PMAS-Arid Agriculture University, Shamsabad, Murree Road,
Rawalpindi, Pakistan

Telephone: +92-051-9292140

Facsimile number: +92-051-9292107

Electronic mail address:

Written Requests for clarification should be received by the Purchaser no later than 08 days after issuance of Invitation for Bid.

C. Preparation of Bids

- ITB 9.1** The language of the bid is **English**.
All correspondence exchange shall be in English language.
Language for translation of supporting documents and printed literature is English.
- ITB 10.1(i)** The Bidder shall submit the following additional documents with its bid:
1. The literature, catalogues/brochures and related documents of Goods, Equipment and Works including details of facilities, equipment, tools and process/ methodology.
 2. Compliance Data Sheet/ Checklist.
- ITB 12.1** Alternative Bids shall not be considered.
- ITB 13.5** The prices quoted by the Bidder shall not be subject to adjustment during the performance of the Contract.
- ITB 13.6** Prices quoted for Contract shall correspond to 100 percent of the Scope or 100 percent of the lot (package) or Items basis.
- ITB 13.6(ii)** The Goods, Equipment and Work shall be delivered at PMAS-AAUR, Rawalpindi.
- ITB 14.1** The prices shall be quoted by the bidder in: PKR.
- ITB 16.2 (a)** Manufacturer's/ Principal's Authorization is required.
- ITB 17.1** The bid validity period shall be 90 days.
- ITB 17.3(a)** The bid price adjustment factor shall not be applicable
- ITB 18.1** A Bid Security shall be required.

The amount of the bid security shall be 01% of Bid Price in the form of deposit at call in favor of Treasurer, PMAS-AAUR and in currency specified in BDS for Clause ITB 14.1.
- ITB 18.2 (a)** Pay Order/ Demand Draft or Call Deposit Receipt (CDR) in the name of Treasurer, PMAS-AAUR.
- ITB 19.1** the number of copies is one (01).
- ITB 19.2** The written confirmation of authorization to sign on behalf of the Bidder shall consist of written Power of Attorney attached to the Bid.

D. Submission and Opening of E-Bids

ITB 21.1 For **bid submission purposes** only, the Purchaser's address is:

**Chairman Purchase Committee, PMAS-Arid Agriculture University,
Shamsabad, Murree Road, Rawalpindi, Pakistan**

The deadline for bid submission is mentioned, as follows:

Submission Date: **15 December, 2025**

Submission Time: On or Before **11:00 Hours**

Bidders "***shall***" have to submit their bids electronically (E-PADs) and hard form.

ITB 24.1 The technical E-bid opening shall take place at: :

**Directorate of Procurement & Inventory Control,
PMAS-Arid Agriculture University, Shamsabad, Murree Road,
Rawalpindi, Pakistan.**

Date: **15 December, 2025**

Time: **11:30 Hours**

The financial E-bid opening shall take place for only those bidders who qualify technical evaluation. The Purchaser shall communicated the date, time and venue to the qualifying bidders at an appropriate time subsequent to completion of technical evaluation process.

ITB 24.2 The Letter of Bid and Price Schedules shall be initialed by the committee representatives of the Purchaser conducting bid opening.

E. Evaluation and Comparison of E-Bids

ITB 31.1 A margin of domestic preference shall not apply.

ITB 32.2(a) Evaluation will be done for *complete or each lot (package) or item base as per requirement of end user of Goods, Equipment and Works.*

F. Award of Contract

ITB 37.1 The maximum percentage by which contract goods, equipment and work may be increased or decreased is 15%.

- ITB 39.2** The successful bidder shall sign, date and return the Contract Agreement made on stamp paper having a stamp duty of an amount as per government rules. The stamp duty shall be paid by the successful bidder.
- ITB 40.1** Performance Guarantee/ Performance Security in the form of Bank Guarantee shall be furnished by the successful bidder amounting to 10% of the Contract value.
- ITB 40.3** Instead of submission of Bank Guarantee as Performance Security/ Performance Guarantee by the successful Bidder, both parties (i.e., purchaser and successful bidder) can mutually agree that the Purchaser can retain an amount of 10% as Performance Security/ Performance Guarantee from bill / payment of every installment made to the Contractor as per Punjab PPRA Rules. The aggregate amount so deducted shall be paid to the Contractor after satisfactory completion of all obligations under the contract within 30 days of issuance of Letter of Completion of Contractual Obligations.
- ITB 41.1** Inspection and Tests specified in BDS by the concerned purchaser in accordance with the specifications or samples or both as required.

Section III. Evaluation and Qualification Criteria

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1. Bidding Process

Single stage two envelopes bidding process will be adopted where bids will be selected under Quality and Cost Based Selection (QCBS) System and procedures described in this Bid Document, in accordance with the PPRA Rules.

The bidding process will involve the steps along with timelines as mentioned in Bid Data Sheet.

1. To enable bidder to prepare the proposal, a list of attached document formats have been provided in Section-IV- Bidding Forms.
2. Any request for clarification should be initiated in writing and addressed as mentioned in ITB and specified in BDS.
3. At any time before the submission of proposals, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by any bidder, modify the Documents by amendment. The clarification on bids or any amendments of the bid will be intimated to all Bidders listed with the Purchaser for this Bid in writing. The Purchaser may as per Punjab PPRA Rules extend the deadline for the submission of proposals as mentioned in ITB.

2. Bidding Procedure for Evaluation of Bids

The bid submitted by the Bidder will be evaluated as per the following procedure:

1. First level of evaluation will be based on mandatory criteria. Only those firms who fulfill mandatory criteria will qualify for next round of evaluation.
2. Second level of evaluation will be on the basis of the Technical Bid, which will include compliance to technical specifications/ requirements of each item/ service and other factors mentioned in this bid document.
3. Bids that pass technical evaluation, will be opened for financial evaluation.

(i) Procedure for opening of E-Bids

Single stage – two envelopes, procedure would be adopted for opening of bids. The detailed procedure and terms are as follows:

- a) The bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the Financial Proposal and the Technical Proposal;
- b) The envelopes shall be marked as “FINANCIAL PROPOSAL” and “TECHNICAL PROPOSAL” in bold and legible letters to avoid confusion;

- c) Initially, only the envelope marked “TECHNICAL PROPOSAL” shall be opened in front of the Procurement Committee members and representatives of bidders, who wish to attend the opening of technical bids;
- d) The Technical Proposals shall be evaluated for compliance to technical requirement of this document, without reference to the price and reject any proposal which does not conform to the specified requirements as listed in said Sections of this Bid Document.
- e) The envelope marked as “FINANCIAL PROPOSAL” shall be opened in front of Procurement Committee members and the representatives of qualified bidders after the technical evaluation.
- f) The Financial Proposal of bids found technically nonresponsive or unqualified shall be returned un-opened to the respective bidders;
- g) The opened financial proposals will be evaluated and amount totals will be checked/ verified for correctness as well as other compliance requirements will be checked.

3. Evaluation Procedure & Criteria

(i) Technical Evaluation

There would be a two-stage technical evaluation; Stage-1 technical evaluation of technical bids will be done as per information tabulated under the “Stage-1: List of Mandatory Documents”. Detailed technical evaluation of those firms would be performed which would qualify the tabulated mandatory technical evaluation criteria. The Stage-2 detailed technical evaluation would then be performed by the Purchase Committee as per the scoring criteria laid out under “Stage-2: Detailed Technical Evaluation Scoring Criteria”.

Stage-1: List of Mandatory Documents for Eligibility

Technical Bids must have the following documents attached to be considered as eligible for further technical evaluation:

S #.	Item Description	Documents
1	Company/Firm must be in operation minimum for 10 years	Valid certificate from concerned regulator / authority
2	Registration of NTN with Federal Board of Revenue (FBR) and having Active Tax Payer status.	/ NTN with Federal Board of Revenue (FBR). Having Active Tax Payer status and registration with relevant revenue authority(ies) for GST / PST.
3	Registration of General Sales Tax (GST)/ Provincial Sales Tax (PST) with relevant revenue authority(ies) and having Active Tax Payer status.	
4	Submit affidavit regarding bidders should not Blacklisted from PMAS-Arid Agriculture University and PPRA.	Mandatory
5	Similar nature completed projects for the last three financial years shall be equal to the estimated cost	Mandatory
6	Proof of the bank statement for the last three financial year of bidding Firm.	Mandatory
7	Compliance Data sheet/ Checklist shall be provided in the format specified in Section IV: Bidding Forms. Unless the submission of the same, bid shall be considered rejected straight away.	Mandatory

The Bid that does not fulfil mandatory requirements shall not be eligible for further evaluation process and they will be given ZERO marks for entire Stage-2 of Technical Evaluation, irrespective of their proposal contents.

Stage-2: Detailed Technical evaluation scoring criteria

The Stage-2 detailed technical evaluation would be based on bidder's experience and capability to perform the contractual obligations as per the schedule of requirements. The detailed technical evaluation will be performed by the Technical Committee and marks will be given as per the following scoring criteria:

Detailed Technical Evaluation Scoring Matrix

Sr.#	Scoring Criteria for Bidder	Max. Marks
(i)	NTN / GST / PST / Prof. Tax Experience on Basis of FBR / PRA and E&T Registration. Total 2x10=20- Marks (02-Marks per Year for registration status and active tax payer status).	20

(ii)	Relevant event/task/experience in providing, supply & services of similar nature & size for clients in Public, Private or Corporate Sector organizations. Each Project: 5 Marks (Maximum 25 Marks)	25
(iii)	Financial Capability 15-Marks (03-Mark = 50.00 million per year)	15
(iv)	10 Marks on fully complying with Technical Specifications of items	10
(v)	10 Marks owner/Director having more than 10 year experience 10 Technical Staff (Minimum 02)	20
(vi)	10-Marks Presence of service / technical team throughout country, Response time should be minimum of 02 days	10
TOTAL TECHNICAL EVALUATION SCORE		100

The Bidders who's Total Technical Evaluation Score is 70% or above will qualify for opening of financial bids.

- **PROVISO:** Provided that if NONE or ONLY ONE (single) bidder exceeds the 70% pass mark, then the Purchaser SHALL decrease the mandatory requirements' Pass Mark limit to 60%. In other words, if TWO or more bidders exceed 70%, then the Pass Mark will NOT be decreased to 60%.
- If Pass Marks are decreased to 60%, then ALL bidders with scores greater than or equal to 60% shall be considered as qualified for Stage 2 of Technical Evaluation.

(ii) Financial Evaluation

Financial bids of only those bidders who qualify/ pass Stage-1 and score at least 70% (or as per PROVISO) in Stage-2 of technical evaluation would be opened before the bidders' representatives who wish to attend the financial proposal opening. All amounts and total price calculations will be checked for correctness. In case of any discrepancy in calculations, the corrections in totals will be made as per mentioned in ITB

Decision of the Procurement Committee will be binding on all concerned and in no case will be challengeable at any forum.

Section IV. Bidding Forms

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Letter of Bid

The Bidder must prepare the Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and address.

Note: All italicized text is for use in preparing these form and shall be deleted from the final products.

Date: **[insert date (as day, month and year) of Bid Submission]**

To: **[insert complete name of Purchaser]**

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB 6);
- (b) We meet the eligibility requirements and have no conflict of interest in accordance with ITB 2;
- (c) We have not been suspended nor declared ineligible by the Purchaser.
- (d) We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods, Equipment & Works: **[insert a brief description of the Goods, Equipment and Works OR LOT (PACKAGE)]**;
- (e) Our bid shall be valid for a period of **[specify the number of calendar days]** days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) If our bid is accepted, we commit to obtain a performance security/ performance guarantee in accordance with the Bidding Documents;
- (g) We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process in accordance with ITB 2.2(d);
- (h) We, including any of our subcontractors or manufacturers or suppliers or principals for any part of the contract, have not been declared ineligible by the Purchaser, under the Purchaser's country laws;
- (i) We are not a government owned entity.
- (j) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and

- (k) We understand that you are not bound to accept the highest scoring evaluated bid or any other bid that you may receive.
- (l) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption.
- (m) We also declare that the Government of Pakistan or Provincial Governments have not declared us ineligible on charges of engaging in corrupt, fraudulent, collusive, or coercive practices.

Name of the Bidder* **[insert complete name of person signing the Bid]**

Name of the person duly authorized to sign the Bid on behalf of the Bidder** **[insert complete name of person duly authorized to sign the Bid]**

Title of the person signing the Bid **[insert complete title of the person signing the Bid]**

Signature of the person named above **[insert signature of person whose name and capacity are shown above]**

Date signed **[insert date of signing]** day of **[insert month]**, **[insert year]**

** : Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid Schedules.

Affidavit

I/We, the undersigned solemnly state that:

- 1) We have read the contents of the Bidding Document and have fully understood it.
- 2) The Bid being submitted by the undersigned complies with the requirements enunciated in the bidding documents.
- 3) The Goods, Equipment and Works that we propose to provide under this contract are eligible Goods, Equipment and Works within the meaning of Clause 2 and Clause 3 of the ITB.
- 4) The undersigned are solvent and competent to undertake the subject contract under the Laws of Pakistan.
- 5) The undersigned have not paid nor have agreed to pay, any Commissions or Gratuities to any official or agent related to this bid or award or contract.
- 6) The undersigned are not blacklisted or facing debarment from any Government, or its organization or project.
- 7) The undersigned has no dispute anywhere in the country regarding supplies & services.

We affirm that the contents of this affidavit are correct to the best of our knowledge and belief.

Signed

Note: The affidavit must be on judicial stamp paper (Rs. =100/-) by the Executive of the Firm & attested by Oath Commissioner.

Bidder Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: *[insert date (as day, month and year) of Bid Submission]*

Page _____ of _____ pages

1. Bidder's Name <i>[insert Bidder's legal name]</i>
2. Bidder's year of registration: <i>[insert Bidder's year of registration]</i>
3. Bidder's Address: <i>[insert Bidder's legal address]</i>
4. Bidder's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
5. Manufacturer/ Principal's Information (if different from Bidder) Name: <i>[insert Manufacturer/ Principal's name]</i> Address: <i>[insert Manufacturer/ Principal's Address]</i>
5. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> ☐ Registration Certificate, NTN, GST Registration certificate as proof of the legal entity named above, in accordance with ITB 2. ☐ Letter of Manufacturer/ Principal's Authorization. ☐ Affidavit (Non-Blacklisted). ☐ In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 2.1.

Bidder's JV Members Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below. Following table shall be filled in for the Bidder and for each member of a Joint Venture. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: *[insert date (as day, month and year) of Bid Submission]*

Page _____ of _____ pages

1. Bidder's Name <i>[insert Bidder's legal name]</i>
2. Bidder's JV Member's name: <i>[insert JV's Member legal name]</i>
3. Bidder's JV Member's country and year of registration: <i>[insert Bidder's country and year of registration]</i>
4. Bidder's JV Member's Address: <i>[insert Bidder's legal address]</i>
5. Bidder's JV Member's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
6. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> ☐ Registration Certificate, NTN, GST Registration certificate as proof of the legal entity named above, in accordance with ITB 2. ☐ Affidavit (Non-Blacklisted). ☐ List of Director(s) and beneficial ownership.

Price Schedule Forms

*[The Bidder shall fill in these Price Schedule Forms in accordance with the instructions indicated. The list of line items in column 1 of the **Price Schedules** shall coincide with the List of Goods, Equipment and Works specified by the Purchaser in the Schedule of Requirements.]*

Price Schedule: Goods, Equipment & Works

User Note: This form is to be filled by the Bidder and shall submit with Financial Proposal.

Name of the Firm:

Bid. Ref.:

Date of opening of Bid.

S. No.	Name of the Good, Equipment or Work	No. of Units	Unit Price	Total Quoted Price	Applicable GST/ PST	Total Quoted Price (Inclusive of GST/PST)
1	2	3	4	5	6	7
				3*4		5+6
1						
2						
3						
4						
	GRAND TOTAL:					

A) FINAL TOTAL QUOTED PRICE: -----
(Both in figures and words)

Signature: -----

Designation: -----

Date: -----

Official Stamp: -----

Manufacturer/ Principal's Authorization

*[The Bidder shall require the Manufacturer/ Principal to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer/ Principal and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer/ Principal. The Bidder shall include it in its bid, if so indicated in the **BDS**.]*

Date: *[insert date (as day, month and year) of Bid Submission]*
Bid Ref: *[insert number/name of bid document]*

To: *[insert complete name of Purchaser]*

WHEREAS

We *[insert complete name of Manufacturer/ Principal]*, who are official Manufacturer/Principal of *[insert type of goods and products manufactured]*, having factories/ facilities at *[insert full address of Manufacturer/ Principal's factories/facilities]*, do hereby exclusively authorize *[insert complete name of Bidder]* to submit a bid, the purpose of which is to provide the following Goods and Products manufactured by us *[insert name and or brief description of the Goods and Products]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and support in accordance with respect to the Goods and Products offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer/ Principal]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer/ Principal]*

Title: *[insert title]*

Dated on _____ day of _____, _____ *[insert date of signing]*

Performance Security/ Performance Guarantee

Bank Guarantee

[This Form, when required, shall only be completed by the successful Bidder after contract award.]

[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insert name and Address of Purchaser]*

Date: *[Insert date of issue]*

PERFORMANCE GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that _ *[insert name of Supplier, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the supply of *[insert name of contract and brief description of Goods, Equipment and Works]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* (_____) *[insert amount in words]*,¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the Day of, 2...², and any demand for payment under it must be received by us at this office indicated above on or before that date.

_____*[signature(s)]*

Note: *All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

¹ The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, and denominated in the currency of the Contract acceptable to the Beneficiary.

² Insert the date thirty days after the expected completion date as per the Contract. The Purchaser should note that in the event of an extension of this date for completion of the Contract, the Purchaser would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Purchaser might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to an extension of this guarantee for a period not to exceed [six months][one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

Certificate

1. We / I hereby confirm to have read carefully the terms & conditions of your Tender Enquiry dated for opening on _____ for the purchase of _____ we agree to abide by all these terms & condition/instructions.
2. Certified that the prices quoted against advertise tender dated _____ are not more than the prices charged from any other purchasing Agencies in the country in the financial year _____ and in case of any discrepancy, we/I hereby undertake to refund the price charged in excess if and when asked to do so.
3. Certified that the price quoted by our firm are inclusive of G.S.T/P.S.T and all taxes as per rules and regulations.

1. NAME OF FIRM _____
2. ADDRESS _____
3. INCOME TAX NO _____
4. SALES TAX REGN NO _____
5. NAME OF TENDERER _____
6. C.N.I.C NO. _____
7. SIGNATURE OF TENDERER _____
8. DATE AND STAMP _____

Compliance Data Sheet/ Checklist

[To be signed and stamped and presented on Bidder's letter head pad]

The provision of this checklist is essential prerequisite along with submission of tenders (with technical proposal).

Sr. #	Detail	Responsive	Non-responsive
1	Standard Bidding Documents.		
2	2% Bid Security of estimated cost of articles / items given by the department. The Bid security must be submitted with technical proposal.		
3	All required samples (if demanded) have been submitted in <i>[name of the Procuring Agency]</i> sample store.		
4	Active Registration with Income Tax Authorities (National Tax Number NTN) at least five years old		
5	Copy of active Registration with Sales Tax Authorities (STRN)		
6	Copy of active Registration (Professional Tax Certificate)		
7	Bidder s JV Member information		
8	Similar nature having similar cost or above have been performed / executed in public organization during last 03 years (certificate duly signed by gazetted officer attached).		
9	Technical Bid Form of Bidding documents) on letter head of the firm duly signed and stamped.		
10	Financial Bid Form Bidding documents) on letter head of the firm, duly signed and stamped.		
11	Bid Security Form of Bidding documents) on letter head of the firm, duly signed and stamped.		
12	Performance Guarantee Form of Bidding documents) on letter head of the firm, duly signed and stamped.		
13	General Information Form of Bidding documents) on letter head of the firm duly signed and stamped.		
14	Affidavit on non-judicial Stamp Paper of Rs. 100/- (i) The firm is not currently blacklisted by the Procuring Agency. (ii) The documents/photocopies provided with Bid are authentic. In case of any fake/bogus document look at any stage. They shall be black listed as per Rules / Laws.		

	(iii) Affidavit for correctness of information. (iv) ****omitted*** Affidavit for correction of information Form (as per form of Bidding documents) on letter head of the firm, duly signed and stamped.		
15	i. Work order / supply order / purchase order of previous relevant experience. ii. Company profile. Staff list along with location and address <i>[where applicable]</i> . iii. Income Tax Returns/Audited Financial Statement, National tax number Certificate, General Sale Tax Number Certificate (last 03 year). iv. Bidders profile Form on letter head of the firm, duly signed and stamped.		

Stamp & Signature of Bidder _____

Note: List all documents/ required information that are attached with both Technical & Financial Proposals. This Compliance Data Sheet/ Checklist should be attached with the Technical Proposal.

THIS FORM MUST ACCOMPANY THE TENDERS

Although the terms and conditions of the Tender Enquiry are very clear even then the suppliers are required to fill this form and attach it with their quotation otherwise their offer can be ignored.

1. Total items quoted _____
 2. Total amount of items quoted as per
Quantity mentioned in the schedule. _____
 3. The total amount of Earnest Money.
Deposited @ 2% of the estimated Price. _____
 4. Name and address of the bank with Bank
Draft/Call Deposit No. and date. _____
- Amount of the Bank Draft/Call Deposit. _____

Signature_____

Name_____

Designation_____

Address_____

Date:_____

Section V. Eligible Countries

Eligibility for the Provision of Goods/ Products, Works and Services

As an exception, firms of a Country or goods/ products manufactured or works and services performed in a Country may be excluded if:

- 1) As a matter of law or official regulation, **the Purchaser's Country prohibits commercial relations with that Country**, provided that the Procuring Entity is satisfied that such exclusion does not preclude effective competition for the supply of the Goods/ Products or Services/ Works required, or
- 2) By an Act of Compliance with a Decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Purchaser's Country prohibits any import of goods from that Country or any payments to persons or entities in that Country.
- 3) For the information of Purchasers and bidders, at the present time firms, goods, products, works and services from the ***following countries are excluded*** from this bidding:
 - **Israel**
 - **India**
- 4) The bidder shall provide all the products / deliverables/ services mentioned in TORs of made in the country of origin (Country of Manufacturer/ Principal) of the offered / quoted products, works, services, equipment & all allied accessories/ deliverables. Services, Works, Products, Equipment or any of its unit components/ deliverables quoted by the bidders must not be rendered from or manufactured in Israel or India. Furthermore, the Bidder / Principal must not have any linkages with Israel or India regarding ownership, sponsoring and financing. In case any item/ deliverable may not confirm its country of origin, the bidder will provide the relevant documents to confirm the make and manufacturer. (if any item/ deliverable during course of execution may not confirm about its make then bidder shall provide an affidavit in this regard).
- 5) The bidder shall provide Undertaking of no business relations, manufacture, technical assistance etc. from Israel & India pertaining.

Section VI. Special Condition of Contract

SPECIAL CONDITIONS OF CONTRACT

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

1. Performance Security (GCC Clause 40)

GCC 40.1-2

- A. For goods offered from within Pakistan and abroad by the local agent by Pakistan:
the successful Bidder shall furnish the performance security @ 10% for the warranty period of one year of the value of Supply Order or Contract in shape of CDR or Pay Order or Demand Draft except bank guarantee in favour of Treasurer, PMAS-AAUR within Seven (07) days from the issuance of acceptance and 10% performance security letters from the Purchaser for permanent equipment. In case the amount of bid security is equal or greater than the value of the performance security, then the bidder shall not require to furnish the performance security separately.
- B. 2 % CDR or Pay Order or Demand Draft except bank guarantee in favour of Treasurer PMAS-AAUR already received in lieu of earnest money in case of general type/consumable good(s) will be retained by the office for 06 months from the day of supply of the respective good(s) or fully consumed whichever is earlier.

2. Inspection and Tests (GCC Clause 41)

GCC 41.1: By the incumbent mentioned in committee as notified by the authority in accordance with the specifications or samples or both as required.

The representative of the firm(s) shall present the Authority Letter from the respective firm in the tender opening meetings with them, failing which he will not be allowed to sit in the said meeting.

3. Warranty (GCC Clause 51)

GCC 50.1: One year free of cost labour and material etc. at site from the date of commissioning of goods.

4. Bid Prices (GCC Clause 13)

- a) for goods offered from within Pakistan;

the price shall be quoted on FOR PMAS-AAUR basis. (FOR means the price of goods quoted by the bidder shall be inclusive of all costs, expenses, charges, duties and taxes etc. whatsoever incidental to their delivery, installation and commissioning as the case may be at PMAS-AAUR site).

- b) If the firm quoted the rates on CFR/CPT basis, the firm is bound to quote the FOR prices also
- c) for goods offered from abroad by the LOCAL AGENT

the price shall be quoted Cost and Freight (CFR), Carriage Paid to (Duty Paid) (CPT) Karachi seaport or Lahore/Faisalabad/Islamabad airport Pakistan, as the case may be. The bidder shall also add all cost expenses, charges, duties and taxes etc. whatsoever expect customs, incidental to delivery installation/commissioning of goods from the port of destination to PMAS-AAUR site. The bidder, in quoting the price, shall be free to use transportation in abroad except transit and means of transport through/of Israel. The LC at sight, as on Usance basis and Advance Payment will be governed as per following: -

i. LC AT SIGHT

The bidder shall provide Performa Invoice of principal on CPT/CFR basis as per supply order along with Insurance / Cover Note and CDR or Pay Order/Demand Draft **within fortnight** in favor of Director (DPIC) as security equal to 100% amount of the goods to initiate the LC at sight.

ii. LC ON USANCE BASIS

In case the bidder, is unable to provide CDR/Pay Order/Demand Draft in favor of Director (DPIC) as security equal to 100% amount of the goods to be imported, may chose this option and shall provide Performa Invoice of principal on CPT/CFR basis as per supply order along with Insurance / Cover Note **within fortnight** to initiate the LC on usance basis (minimum usance period 60 days from the date of Airway Bill or 90 days from the date of Bill of Lading).

iii. ADVANCE PAYMENT

The bidder shall provide Performa Invoice of principal on CPT/CFR basis as per supply order along with Insurance / Cover Note and CDR **within fortnight** in favor of Director (DPIC) as security equal to 100% amount of the goods to be imported to proceed for advance payment to the exporter. However, this option will be had where the value of the goods to be imported is up to US \$ 10,000 or varied in accordance with the instructions of the State Bank of Pakistan and Pakistan Customs issued from time to time and remittance will also be made accordingly.

iv. OPEN ACCOUNT

In case the bidder has not opted for import through LC (at sight or Usance basis or advance payment) may opt this option and shall provide Performa Invoice of principal on CPT/CFR basis as per supply order **within fortnight**. However, remittance will be made maximum up to six months from the date of filing of Goods Declaration (GD) form or otherwise as per Foreign Exchange Manual of State Bank of Pakistan and Pakistan Customs or instruction issued in this regard from time to time.

v. CONTRACT / COLLECTION

In case the bidder has not opted the options referred to i to iv above and may opt for this option. The bidder shall provide Performa Invoice of principal on CPT/CFR basis as per supply order **within fortnight**. The minimum period for remittance will be 60 days from the date of Airway Bill or 90 days from the date of Bill of Lading. However, remittance will be made as per Foreign Exchange Manual of State Bank of Pakistan and Pakistan Customs or instruction issued in this regard from time to time.

vi. INCIDENTAL CHARGES FOR IMPORT OF GOODS:

All charges (Inside/outside Pakistan) like insurance, LC/bank and clearance of consignment from port/custom authorities will be borne by the bidder.

vii. RELEASE OF CDR

In case of LC at sight and advance payment to exporter, the CDR equal to 100% amount of the shipment as security will be released by Director (DPIC) after receiving of satisfactory inspection/installation/ commissioning report from end user or concerned PI/PD/CPD/HOD.

viii. INITIATION OF REMITTANCE TO THE EXPORTER

In case of LC on usance basis, import on Open Account and Contract / Collection basis, the Director (DPIC) will initiate remittance through the concern bank to the exporter after receiving the satisfactory inspection/installation/commissioning report from the purchaser or the convener tender committee as the case may be.

ix. DELIVERY PERIOD

After receiving the transmitted LC (at sight or Usance Basis) or swift acknowledgment against advance payment / proof of advance payment or supply order on Open Account or Contract / Collection basis, the local supplier is responsible to provide complete set of shipping documents i.e. Airway Bill/Seaway Bill/Bill of Lading, Commercial Invoice, Packing List, Country of Origin Certificate and any other document(s) related to shipment (if required) along with detail of bidder's clearing agent for issuance of authority letter for clearance of consignment from port / custom authorities, ***within 6 weeks from the date of opening of LC (at sight or usance basis), advance payment and date of supply order for import of goods on "Open Account" or "Contract / Collection" basis. Moreover, after clearance of consignment by bidder from port / custom authorities, will deliver the consignment to the purchaser along with complete set of post shipment documents within 05 days from the date of Authority Letter.*** After expiry of the requisite period, firm will require to apply for extension in delivery period. However, after due scrutiny the Committee may extend the delivery period with liquidated damages as per applicable rate if the delay is on part of the bidder or without liquidated damages if the delay is on the part of the procuring agency or due to force majeure.

NOTE:

In case of late submission of Proforma Invoice, shipping documents and delivery of goods, difference of exchange rate on higher side as well as liquidated damages shall be recovered out of belongings of the bidders @ 0.67% of the value of the goods up to maximum 10% of the value of goods.

5. Payment (GCC Clause 50)**6. Prices (GCC Clause 13)**

GCC13.1: The successful bidder(s) shall provide the price reasonability certificate to the effect that the rates quoted are reasonable in accordance with the market. If it is found at any stage, the quoted rates are higher than the market ones or the item(s) have been provided to any other Institute/Department etc at less rates than the quoted ones. The firm undertakes to refund the difference amount to the purchaser on demand.

7. Change Orders

Not applicable

8. Liquidated Damages (GCC-51)

GCC 51.1 Applicable rate:

The liquidated damages, if imposed, will be recovered at the rate of up to 0.67% of the value of goods supplied/installed/commission late per day or a part of a period exceeding the original delivery period, subject to the provision that the total liquidated damages thus imposed will not exceed 10% of the total value of the goods delivered/installed/commission late.

9. Settlement of Disputes

The grievances or disputes arising between parties shall be settled in conformity with mechanism provide for in the PMAS-AAUR, Procurement Rules, 2014. Accordingly, Complaints of bidder/contractor shall be disposed of / settled by

- Prior to the entering into contract any grievance(s) of the Bidder(s)/Applicant(s) shall be addressed by the **Grievance Committee** constituted vide Notification No. PMAS-AAUR/3489 dated 13-09-2018 and
- After coming into force of the procurement contract, disputes between the parties to the contract shall be settled through **Arbitration Committee** constituted vide Notification No. PMAS-AAUR/6020 dated 13-12-2019.

Accordingly, powers and terms of reference for Grievances Committee with and method of arbitration are as under:-

A. Grievances Committee:

- i. Any bidder feeling aggrieved by any act of the procuring agency after the submission of his bid may lodge a written complaint with **Grievances Committee** concerning his grievances not later than 10 days after the announcement of the bid evaluation report under Rule 37 of the PMAS-AAUR, Procurement Rules-2014.
- ii. The committee shall address the complaints of bidders that may occur prior to the entry into force of the procurement contract. The committee shall investigate and decide upon the complaint within fifteen days of the receipt of the complaint. Mere fact of lodging of a complaint shall not warrant suspension of the procurement process.

Any bidder not satisfied with the decision of the committee may lodge an appeal in the relevant court of jurisdiction.

B. Arbitration:

After coming into force of the procurement contract, all matters of dispute or difference except regarding rejection of goods by the Inspector under ITB 40.1 (Standard Bidding Document) or cancellation of the contract by the Purchaser arising out of the agreement between the parties thereto, the settlement of which is not otherwise specially provided for in contract agreement, shall be referred to arbitration as under:-

(a) Foreign Currency Contracts (CFR/CPT, etc.) made directly with Foreign Principal /Manufacturer

- i. The dispute shall be referred for adjudication to two arbitrators one to be nominated by each party, who before entering upon the reference shall appoint an umpire by mutual agreement, and if they do not agree, a judge of the Superior Court will be requested to appoint the umpire. The arbitration proceedings shall be held in Pakistan and under Pakistan Law.
- ii. The venue of arbitration shall be the place from which the contract is issued or such other places as the Purchaser at his discretion may determine.
- iii. Arbitration award so given will be firm and final.

(b) Indigenous (FOR) contracts

The settlement of dispute, if not otherwise especially provided for in the contract shall be referred for the decision of the committee constituted by the University Authority vide notification no. PMAS-AAUR/6020 dated 13-12-2019 and the decision of the committee shall be final and binding on both the parties. The work under the contract shall if reasonably possible continue, under the proceedings before the committee and no account of such proceeding unless they are subject of the dispute.

Note:

- The arbitration award shall be recorded in writing.

- (c) CFR/CPT, etc., contracts made through local agents would be dealt under sub para b above.

(d) Prior Notice for arbitration:

If the supplier intends to go for arbitration, he shall have to give 30 days' notice in writing informing the purchaser of his intention to refer to the points of differences or dispute of arbitration. He shall have to define clearly the point of difference and or dispute in his notice.

(e) Court Jurisdiction

Only the Courts at Rawalpindi shall have exclusive jurisdiction to adjudicate upon any list brought by either of the parties in relation to the contract.'

10. Applicable Law (GCC Clause 48)

GCC 48.1: PMAS-AAUR, Procurement Rules 2014 and Laws governing in Pakistan

11. Notices (GCC Clause 49)

GCC 49.1: The Supplier shall provide address for notice purposes:

12. Taxes and Duties

As per law

13. Stamp Act

In accordance with the Stamp Act 1899 amended from time to time, the contractor shall require to affix stamp duty @ 25 paisa per hundred rupees on the value of the contract.

PART 2 – Schedule of Requirements

Section VII. Schedule of Requirements

Contents

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GENERAL REQUIREMENTS

1. Introduction

PMAS-AAUR has planned to Procurement of Equipment/Technologies for Tissue Culture under the PSDP funded Project ENCIB under the Project Head.

2. General

All goods as mention below should be brand new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided for otherwise in the contract.

3. Standards

The quoted product, at the time of technical evaluation and on delivery, shall conform to the standards as prescribed in specifications and in the Technical Evaluation Criteria. The said conformance shall lead to subsequent issuance of the Acceptance Certificate to the Supplier by the Purchaser.

4. Environmental Standard

The equipment and hardware to be provided under this Contract shall be capable of withstanding the worst possible conditions, without deterioration or distortion, expected in the Project area. The following environmental parameters indicate typical conditions:

- | | |
|--|------------------------|
| • Altitude | about 450 - 550 m. asl |
| • Maximum outdoor temperature | + 50 °C to 70 °C |
| • Minimum outdoor temperature | - 20 °C |
| • Relative humidity | Approaching 100% |
| • Maximum wind speed (3.5 sec. gust??) | 120/ 150 km/hr |
| • Atmosphere | Occasional dust |
| • Terrain | Plain, Plateau |

5. Packing

The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

6. Spare Parts/ After Sales Service

- 6.1 During warranty period, replacement/ provision of spare parts shall be free of cost for each item from the Manufacturer/ Principal (where applicable)
- 6.2 Post-warranty/ After sale service with spare parts shall be 12 months for each item from the Manufacturer/ Principal (where applicable).
- 6.3 After sale service without spare parts shall be further 2 years subsequent to period mentioned in para 6.1 above. (where applicable).

LIST OF GOODS, FURNITURE, EQUIPMENT, MACHINERY & SERVICES INCLUDING TECHNICAL SPECIFICATIONS

PROCUREMENT OF EQUIPMENT/TECHNOLOGIES FOR TISSUE CULTURE UNDER THE PSDP FUNDED PROJECT ENCIB

LIST OF REQUIRED EQUIPMENTS / TECHNOLOGIES FOR TISSUE CULTURE

S.#	Name of Item/ Equipment	Qty. Demanded
1.	Thermal Cycler	1
2.	Nanodrop	1
3.	Ultra-pure water purification system	1
4.	Freezer -86 °C	1
5.	Freezer -20°C	1
6.	Spectrophotometer	1
7.	DNA, RNA Extraction System	1
8.	Laminar flow/Bio Hazard Safety Clean Bench	1
9.	Refrigerator	1
10.	Autoclave	1
11.	PC Controlled Gel Doc system	1
12.	Electrophoresis plus Horizontal Unit	2
13.	Electrophoresis plus Vertical Unit	1
14.	Electrophoresis plus power supply	2
15.	UV Transilluminator	1
16.	High Speed Refrigerated Centrifuge Machine	1
17.	Refrigerated Table Top Centrifuge Machine	1
18.	Heated Refrigerated circulated water bath	1
19.	Microwave oven	1

20.	pH meter	1
21.	Conductivity Meter	1
22.	Magnetic stirrer	2
23.	Weighing balance	2
24.	Incubator Shaker	1
25.	Orbital shaker	1
26.	Incubator & Drying Chamber	1
27.	ICP-AES/OES Integrated Coupled Plazma- Atomic Emission Spectrometer Dual View	1
28.	Electroporator	1
29.	Humidifier	2
30.	Chlorophyll Meter	1
31.	Thermo Hygrometer	2
32.	Digital Micro Meter	1
33.	Colorimeter	1
34.	Light Meter/Lux Meter	1
35.	Water Distillation Unit	1
36.	<u>GFP Imaging System</u>	1
37.	Multimedia with Laptop & Screen	1
38.	Growth Chamber	1
39.	Micropipette (0.5-10, 10-100, 100-1000 ul, 1-10ml)	2
40.	Multichannel pipette (0.5-10, 10-1000, 30-3000 ul)	1
41.	Deep Freezer	1
42.	Fume hood	1
43.	Thermocycler Real time Nucleic Acid Detection System	1
44.	Dissecting/inverted microscope with florescence and accessories	1
45.	Phase contrast microscope with computer and camera	1
46.	Water bath shaker	1
47.	Liquid Nitrogen Vessels	2
48.	Data Logger	1
49.	Vacuum cleaner	1
50.	Electric water cooler	1
51.	Lab trolleys	4

52.	Ice flaker machine	1
53.	Automation of Laboratory/Glass House	1

Estimated Cost for Lot-1 Rs.3.340 million

LIST OF MAJOR EQUIPMENTS WITH SPECIFICATION FOR TISSUE CULTURE

LOT-A			
Sr. No	Equipment Details	Specification	Qty.
1	Micropipette (0.5-10, 10-100, 100-1000 ul, 1-10ml)	Fully Autoclavable • Must have Volume Adjustment Control Button • Ultralight weight • Piston highly resistant to heat, acid, alkalis, bleach and abrasions. • Should preferably made up of organic polymer • Low force metal (preferred) ejector • Certification: CE Marked	2
2	Multichannel pipette (0.5-10, 10-1000, 30-3000 ul)	Fully Autoclavable • Must have Volume Adjustment Control Button • Ultralight weight • Piston highly resistant to heat, acid, alkalis, bleach and abrasions. • Should preferably made up of organic polymer • Low force metal (preferred) ejector • Certification: CE Marked	1
3	Deep Freezer	Capacity: 365 liters, Weight: 95 KG Approx. Power Consumption 320 WT Voltage / Frequency: 220V~ / 50Hz Dimensions (H X W X L) 34 x 26 x 52 Inches Compressor: Danfoss Refrigerant: R134a Temperature range: Less Than -18 Aluminum Interior Hygienic Embossed Keep 100 Hours Cooling in freezer without Electricity Interior light (switches on when door opens) Rust Proof Powder Painted Outside body Balanced Fan Cooled & High Performance Environment-Friendly CFC Free Copper Tubing & Evaporators, Condensers Pipes	1
4	Liquid Nitrogen Vessels	• Capacity(L)=30 liter and 10 liter, • Made of high strength aluminium alloy • Having multi-layer thermal insulation design • Vacuum insulation • Including dipper • Lid with lock • Static Liquid Nitrogen Daily Evaporation Rate(%)=2	2
5	Vacuum cleaner	Compact size Energy saving 1.8L dust capacity Dust full indicator Air outlet HEPA12 Metal telescopic tube 5M cable length Soft touch handle Rubber coated wheels	1
6	Electric water cooler	Stainless steel tanks Modern Ergonomic Non-Glass Fascia Taps: Hot & Cold 3 years compressor warranty Cooling Capacity: 2L Cold Water Tank Capacity: 3L Hot Water Capacity: 4L Hot Water Tank Capacity: 1L Width (cm): 34.5 Height (cm): 107.6	1
7	Lab trolleys	Load Capacity: 300 kg, Cart Size: L40" x H34" x W18", Material: SS 304, Wheel: Rubberized castor wheel	4

8	Ice flaker machine	Minimum Ice production 75 Kg per day, storage capacity 25 Kg, external body of stainless steel, medical grade (R134A) refrigeration gas, Ice shape- small particles of irregular snow ice, Certification: CE Marked	1
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Estimated Cost for Lot-2 Rs.13.906 million

LOT-B			
Sr. No	Equipment Details	Specs	Qty.
1	Freezer -86 °C update specs	System can freezes down to -86°C: realize robust and long life time. Capacity: 650-750 Lit. Freezing System: UniFreez System Temp. Range: -800C~-650C at Room Temperature of 300C and Humidity of 70% Sensor: PT100 Sensor Compressor: Hermetic Type Condenser Type: Block Condenser, No Pin, Filter Free Mechanism Refrigerant: Natural (CFC Free Refrigerant System) Controller & Display: 7" Full Touch Screen TFT LCD Shelves: Included 3 Stainless steel Shelves Max. Q'ty of Racks: 24pcs of 20(4x5)-Placed Rack (RFU50) Material Internal: Stainless steel (#304) External: Powder Coated steel Plate Inner Door: Powder Coated Stainless steel (#304) Others: CE RoHS Certified, PL (Product Liability), Insurance, GD-mark Touch-Screen TFT LCD Smart-Lab Controller CFC-Free Refrigerants Built in Standard Warning and Alarm Functions RS232 Communication Link, Remote Control Software Chamber Power Consumption: 503Wh Power Supply & Cord Plug: 1 Phase, AC 120V, 60Hz or AC 230V, 50 / 60Hz.	1
2	Freezer -20°C	Volume: 300-400 L Temperature range: -30 °C to -40 °C Steel shelves: 4 shelves Ambient temperature: 10 °C to 32 °C Power: 300 W Cooling method: Direct cooling Defrost: Manual Refrigerant: R290 Temperature controller: Microprocessor, Display Digital Evaporator: Submerged coil Evaporator material: Copper pipe Inside material: Color sprayed steel Outside material: Color sprayed steel Insulation: PURF Condenser: Wire and tube Sensor: NTC Power consumption: 4 kW Voltage: 220 V / 50 Hz Noise: 50.5 dB	1
3	Refrigerator	Total capacity 968 litres; Dimensions (WxDxH) 1025 x 650 x 2080 MM; Cooling performance +2C° To +8C°; Refrigerant R-134a/R-290; Condenser Copper / Aluminum Fins	1
4	High Speed Refrigerated Centrifuge Machine	Speed: 20000rpm, RCF: 27800xg Capacity: 4x100ml Timing Range: 1~99min Speed Accuracy: ±20rpm, Acceleration: 1~10sec, Deceleration: 1~10sec • Time set range: 1 min - 99 min; increments + HOLD mode • Temperature Set Range: From -9°C to +40°C per 1°C increment • Noise level: 50 dBA • • Voltage: AC220V, 50/60Hz, 5A, Certification: CSA certified, CE marked, IVD compliant, Certified Biosafety • Technical Standards: IEC 61010-1, IEC 61010-2, IEC 61010-020	1
5	Refrigerated Table Top Centrifuge Machine	Speed: 500-15,000 Rpm (1 Rpm steps) Rcf Max: 22,000 G, Temp. Variable -9°C to +40°C with stand by cooling Supply: 230V, 50/60Hz. Large LCD display with touch screen control Rotor Recognition 10 Accelerations rates, 10 deceleration rates 108 program memory. Timer 0-9999 minutes & hold in 1 second increments, Pulse short run, Run in speed (rpm) or rcf (G) in 1 rpm increments, W2t plots time, accel rpm and decel, Sound <60db (rotor dependent), Orientation acceleration rate, Multi point lid locking, Emergency lid release, Lid Spring Strut, Lid lock detection, Imbalance detection, Overspeed sensor, Set inverter values, Barrier ring, Motor overheat sensor, CFC free R404A gas, Valve control of gas, PID control. CE marked and ISO 9001 Regulated and IVD Certified. a) Rotor type: 24 x 2ml Size max: 11 x 50mm Minimum speed Rpm: 500	1

	Maximum speed Rpm: 15,000 Maximum Rcf (G) : 22,000 Radius max cms: 8.5 Sample tube angle: ° 45 Acceleration time (secs): 25 Deceleration time (secs): 25 b) Rotor type: 6 x 100ml Size max: 45 x 125mm Minimum speed Rpm: 500 Maximum speed Rpm: 6,000 Maximum Rcf (G) : 4,800 Radius max cms: 12 Sample tube angle: ° 30 Acceleration time (secs): 35 Deceleration time (secs): 35 c) Rotor type: 8 x 50ml Size max: 30 x 120mm Minimum speed Rpm: 500 Maximum speed Rpm: 6,000 Maximum Rcf (G) : 4,800 Radius max cms: 12 Sample tube angle: ° 30 Acceleration time (secs): 35 Deceleration time (secs): 35 d) Buckets: Complete with buckets Sealed Lids: Available with Rotor type: 4 x STD Plates Tube size max: 85mm x 128mm Minimum Speed Rpm: 500 Rpm Maximum Speed Rpm: 3500 Rpm Maximum Rcf (G): 2500 Radius max cms: 14 Sample tube angle (°): 0 °C (10) Acceleration time (secs): 30 Deceleration time (secs): 30	
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Estimated Cost for Lot-3 Rs.38.169 million

LOT-C			
Sr. No	Equipment Details	Specs	Qty.
1	Thermal Cycler	• Thermal Cycler Gradient • A gradient-enabled dual 48/48-well fast module that allows 2 independently controlled protocols to be run side by side in a single bay with 2 programming options.	1
2	DNA, RNA Extraction System	Fully or semi-automated magnetic bead-based nucleic acid purification system suitable for extraction of DNA, RNA, or total nucleic acids from various biological sample types; Minimum of 12 samples per run or higher throughput (e.g., 24 or 96 samples); Compatible with a wide sample input volume (app 20 µL to 1000 µL) and flexible elution volumes; Magnetic bead separation technology ensuring high yield, purity, and reproducibility.; Processing time should not exceed 60 minutes per batch.; Built-in UV decontamination or equivalent contamination-control mechanism; Integrated heating and mixing functions with temperature control for lysis and elution steps.; Touchscreen with programmable protocols and real-time monitoring of run progress.; Supports data export via USB or LAN for traceability and documentation.; System should allow customization of protocols and compatibility with a variety of commercially available extraction kits.; Extraction performance should provide nucleic acid purity suitable for downstream applications such as PCR, qPCR, sequencing, and other molecular assays.; Door interlock safety feature; Compact benchtop design suitable for standard laboratory environments; All required accessories, consumables, and reagent kits for initial operation must be provided with the system.; Vendor should ensure installation, training, and local technical support along with availability of consumables and spare parts.	1

3	PC Controlled Gel Doc system	Camera; Detector Cooled 16-bit CCD, 65,535 shades of gray; Resolution 9.1 megapixels; Lens Fixed, 25 mm, f/0.95; Field of view 22.5 x 18.0 cm (W x D) (image up to 4 mini blots or gels); System interface; Touchscreen 12.1 inch capacitive LCD display, 1,024 x 768 pixels; Storage and connectivity; USB 2 USB (2.0); Network Ethernet port, Connect (cloud-based) connectivity, optional Wi-Fi (adapter sold separately); Image file format G2i (proprietary), TIFF, JPG, PNG; Filter Set 12 filter (6 excitation, 6 emission); Illumination Source Green LED (470–550 nm) transilluminator ; Epi white LED; Epi near-IR LED; Software: PC-compatible control and analysis software for real-time image acquisition, annotation, and quantitative analysis.	1
4	Electrophoresis plus Horizontal Unit	Buffer tank, Lid with cables, 15 x 7 cm tray, Leveling bubble, 15- and 20-well combs, Casting gates, Gel caster Cell size (W x L x H) : 17.8 x 25.5 x 6.8 cm Gel tray sizes (OD) (W x L) : 15 x 7 cm , Sample throughput : 10-60	2
5	Electrophoresis plus Vertical Unit	Tank, lid with power cables, electrode assembly, Mini cell buffer dam, 2 casting stands with 4 casting frames, 5 short plates and 5 spacer plates with integrated 0.75 mm spacers, Five 10-well combs, Five gel releasers. Dimensions (W x L x H): 12 x 16 x 18 cm With compatible stabilizer	1
6	Electrophoresis plus power supply	Max Voltage Output: 300V • Max Current: 400 mA • Max Power: 75 W • No. of Jacks: 3 output jacks • Constant voltage, current, or power settings • No load detection • Built-in timer • Alarm at end of program • Up to 10 custom programs with 10 steps each • Certifications: CE Marked As per requirement, compatible with above Electrophoresis systems. With compatible stabilizer	2
7	UV Transilluminator	Quick visualization for both colorimetric stained gels/membranes and fluorescently stained gels/membranes, Blue LED for fluorescently stained nucleic acid and protein gels, White LED for colorimetric stained protein gels and chromogenically stained membranes. Emission maximum of Blue LED: 470nm. Viewing surface dimensions: 12 × 18 cm (4.8 x 7.2 in)	1
8	PCR tube centrifuge machine	Capacity 24 x 1.5/2.0 mL or higher (preferred) rotor with bio containment lid • Max Speed: 13,300RPM Max RCF: 17,000 x g • Sample Capacity: 24 x 1.5 / 2.0ml • Noise level: 55 dBA • Time set range: 1 min - 99 min; increments + HOLD mode • Power Supply: 220V (50/60 Hz) • Technical Standards: IEC 61010-1, IEC 61010-2, IEC 61010-020 • Certifications : CE Marked, CSA, IVD Compliant, Certified Biosafety	1
9	Microwave oven	65L Microwave oven	1

10	Electroporator	Complete electroporation system for transfection of all eukaryotic and prokaryotic cells, compatible with any electroporation buffer With compatible stabilizer	1
11	GFP Imaging System	Camera: Detector-cooled 16-bit CCD, capable of 65,535 shades of gray for high dynamic range imaging.; Resolution: 9.1 megapixels or higher for detailed fluorescence and chemiluminescence imaging.; Lens: Fixed 25 mm, f/0.95 high-sensitivity lens for optimal light collection.; Field of View: 22.5 × 18.0 cm (W × D), accommodating up to four mini gels or blots per image.; System Interface: Integrated 12.1-inch capacitive touchscreen LCD display with 1,024 × 768 pixel resolution for on-board image viewing and control.; Storage and Connectivity: Two USB (2.0) ports, Ethernet port for network access, cloud-based connectivity, and optional Wi-Fi (adapter sold separately).; Image File Formats: TIFF, JPG, and PNG formats for compatibility with standard analysis software.; Filter Set: Twelve-position filter wheel (6 excitation filters and 6 emission filters) optimized for GFP and other fluorescent dyes.; Illumination Source: Green LED (470–550 nm) transilluminator for GFP excitation, with additional epi white LED and epi near-IR LED illumination options.; Software: PC-compatible control and analysis software for real-time image acquisition, annotation, and quantitative fluorescence analysis.	1
12	Multimedia with Laptop & Screen	Projector Type: Digital multimedia projector with high-brightness LED or laser light source, minimum 4,000 ANSI lumens and Full HD (1920 × 1080) resolution for clear image projection.; Contrast Ratio: Minimum 20,000:1 for vivid color reproduction and clarity in bright environments.; Projection Size & Distance: Capable of projecting images up to 120 inches diagonal from standard throw distance.; Connectivity: Multiple input ports including HDMI, VGA, USB, and wireless screen mirroring support (Wi-Fi / Bluetooth).; Audio: Built-in speakers (minimum 10 W output) and external audio connectivity option.; Laptop: Preinstalled with latest Windows OS, Intel Core i5 (or higher) processor, 16 GB RAM, 512 GB SSD storage, HDMI output, Wi-Fi, Bluetooth, and webcam.; Screen: Portable or wall-mounted projection screen (minimum 6 × 4 ft or 84-inch diagonal), matte white surface for high-gain image clarity.; Accessories: Includes all necessary cables, remote control, carrying case, and mounting kit if required.	1

13	Thermocycler Real-time Nucleic Acid detection system	Real-time PCR detection system, 5-color plus FRET, with built-in computer Peltier heating and cooling method Temperature range: 0–100°C Accuracy: $\pm 0.2^{\circ}\text{C}$ at 90°C Optical detection with filtered LEDs and photodiodes Sensitivity: Detects 1 copy of target sequence in human genomic DNA Scan time: 12 sec for all channels Multiplex analysis: Up to 5 targets per well Sample capacity: 96 wells Communication interface: USB 2.0 Real-Time PCR Detection System with compatible computer system and printer With compatible stabilizer Gradient: Operational range, $^{\circ}\text{C}$ 30–100 Programmable span, $^{\circ}\text{C}$ 1–24 Temperature Range, $^{\circ}\text{C}$ 4–100 Accuracy, $^{\circ}\text{C}$ ± 0.2 of programmed target at 90°C Uniformity, $^{\circ}\text{C}$ ± 0.3 well-to-well after 10 sec of arrival at target Optical Detection: Excitation: 6 filtered LEDs Detection: 6 filtered photodiodes Range of excitation wavelengths, nm: 450–684 Range of emission wavelengths, nm: 510–730 Dynamic range 10 orders of magnitude	1
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Estimated Cost for Lot-4 Rs.31.062 million

LOT-D			
Sr. No	Equipment Details	Specs	Qty.
1	ICP-AES/OES Integrated Coupled Plasma- Atomic Emission Spectrometer Dual View	Versatile spectrometer with flame with hydride generator and mercury vapour unit; capable of both emission mode and absorption mode for a comprehensive analysis of samples; Detector Type: must be a wide-range photomultiplier equipped with an auto-gain function to effectively reduce the effects of atomic emission interference during analysis. Optical Configuration: 3-dimensional layout featuring true double-beam optics for excellent stability in measurements and high-throughput single-beam design for enhanced sensitivity in furnace measurements. Adjustable Burner Angle: The burner angle must be adjustable from 0 to 90° to extend the working concentration range. Measurement Capability: 185.0 to 900.0 nm; high spectral resolution. Automatic Spectral Bandwidth Selection: Comprehensive safety features: Gas pressure monitor, Automatic detection of fuel gas leaks, flashback detection, flame monitoring, prevention of incorrect burner head use, drain tank level monitoring, automatic flame extinction upon power outage or sudden power interruption, Internal fan stop sensor, detection of variety of elements (Cd, Hg, Pb, Fe, Cu, Mn, Ni, Ag, Zn , but not limited to) Comprehensive Software (licensed) compatible with latest Microsoft operating system. Software must have in-built program to perform hardware validation and check system performance with capability to store and print this report. Software measurement mode must comprise of flame method and furnace method with display of signal analog output. Software must have automatic baseline correction of baseline drift and automatic calibration curve correction function using sensitivity monitoring. Software must provide function to perform background correction in flame emission mode. Software should calculate and display sample concentration using either calibration curve method or standard addition method; based on sample volume, dilution rate, fixed volume and factor inputs. Software must have capability to analyse replicates and must display average value, standard deviation (SD) and RSD values directly. The furnace technique signal processing should be possible with both peak height and peak area. Software should automatically check for proper functioning of lamp, detector and background corrector before starting analysis. Software must be able to record the used lamp time (hours) and monitor lamp warming-up time. Sample results must be displayed in table or worksheet format which is easy to print, copy and report. Software should have security management using login ID and password to have controlled user access based on user privileges. Software should have ability of maintaining log record, audit trail and electronic signatures. Company will be responsible for proper installation, preparation of installation area (electric requirement, bench etc), training etc. Air compressor (for flame) should be provided as standard with instrument and not from local supplier. Gas cylinders to be provided with regulators 2 quantity each. UPS depending on instrument load and PC with printer with licensed windows must be included Electric Power Voltage: 220±22V; frequency: 50±0.5Hz;	1
2	Nanodrop	Sample Volume 1 to 20 µL, Includes Fluorometer, Assay Tubes, Wi-Fi Dongle, Assay Kit, Excitation Wavelength	1

3	Ultra-pure water purification system	Water quality: Distilled high purity water: Normal water sampling JIS K0557 A4 Standards compliance Water sampling after manual refreshing ASTM D1193 Type 1 Deionized water: JIS K0557 A4 Standards compliance. Water collection method: Distilled high purity water: Pre-treatment Cartridge→Ion Exchange→Distillation→Tank→Ion Exchange→High-Purity Cartridge→Filtration Deionized water: Pre-treatment Cartridge→Ion Exchange→Filtration Water quality performance*2: Distilled high-purity water : 18MΩ · cm or more (specific resistance); Deionized water : Approx. 18MΩ · cm Distilled water : Approx. 1.0 MΩ · cm*1 Production of distilled water*2 : Approx. 1.5L/hr. Collection of distilled water*2*3: Approx. 0.9L/min. Collection of deionized water*2*3: Approx. 1.0L/min. Setting range of collection capacity*2*4: 0.1 - 26L Quantitative water collection / Continuous water collection Drainage connection: Left-right selective connection / Hose connection Pre-treatment cartridge: 0.1 μm hollow fiber membrane + activated charcoal (PWF-1) (to be replaced at a flow rate of approx. 5,000 L) Ion-exchange resin cartridge: CPC-S (4L)×1pc. (Exchange by approx. 700L of water flow) Distilled High Purity Water Cartridge: One each of CPC-S (4L) and CPC-H (3L) (Both to be exchanged every year.) Final filtration: 0.1 μm membrane filter (Mounted at the sampling outlet) (to be replaced at a flow rate of approx. 500 L), Distilled water storage tank sterilization light: UV sterilization lamp as standard equipment.	1
4	Spectrophotometer	1. Backlit LCD screen can show complete parameters like T,A,C,K. 2. Calibrate 0%A and 100%T automatically. 3. Large sample compartment can hold various cells from 5mm to 100mm and meet different test requirements. 4. output port, and professional analysis software UV-PRO1.0 with the functions of quantitative analysis. 5. Automatic lamp switches and manual wavelength setting. 6. Save and read out the test data and values of K and B. Stand accessories: Lamp,Cuvette holder,4pcs of 10mm Glass cuvettes, 2pcs of 10mm Quartz cuvettes. Display : 70*40mm backlit LCD Wavelength Range: 320 - 1020nm Slit Width: 4nm Wavelength Accuracy: ±2nm Wavelength Repeatability: ≤1nm Photometric Accuracy: 0.5%T Photometric Repeatability: 0.2%T Stray light: ≤0.15%T@ 360nm. Stability: 0.002A@ 500nm Output Port: RS232 Light Source: Tungsten Halogen Lamp Photometric Range: 0-200%T, -0.3-3a,0-9999C(0-9999F) Power Requirements: 220V, 50-60HZ	1
5	Autoclave	Chamber Capacity: Minimum 75 liters (or as specified) stainless steel chamber (SS 304/316 grade) with corrosion-resistant construction.; Temperature Range: Adjustable from 121°C to 134°C, suitable for high-pressure steam sterilization.; Pressure Range: Operable up to 15–20 psi (1.0–1.4 bar) with safety pressure release valve.; Control System: Microprocessor-based digital controller for temperature, pressure, and sterilization time settings with LCD display.; Safety Features: Automatic pressure release, lid interlock system to prevent opening under pressure, low-water level protection, and over-temperature cut-off.; Cycle Options: Pre-set and customizable sterilization programs for liquids, solids, and instruments.; Heating System: Electrical heating element with automatic cut-off and energy-efficient operation.; Chamber Material & Construction: Double-walled stainless-steel chamber with efficient insulation and gasket-sealed lid for steam retention.; Accessories: Supplied with perforated baskets or trays, drain hose, and power cable.;	1
6	Heated Refrigerated circulated water bath	Temp. Range & Accuracy: – 25°C~ +150°C, ±0.1°C Temp. Resolution: 0.1°C-Display, 0.1°C-Control Temp. Uniformity & Probe: ±0.2°C at – 10°C, PT100 Pump: Max Flow Rate :25Lit./min(Available to Control 1~5Level Flow Rate) Max Pressure : 7.5 psi, Max Lift : 4m Bath Volume: 12 Lit. Heating Power: 1.5 kW Refrigerator: 1/3 HP	1

		Cooling Capacity at +20°C: 380 W Cooling Capacity at 0°C: 250 W Cooling Capacity at -20°C: 130 W Refrigerant: CFC -Free(R-404A) Refrigeration System Total Power Consumption: 2 kW Compressor Control: Intelligent Control of Refrigerator for preventing Compressor Overload Pump: Max Flow Rate : 25Lit./min, Max Pressure : 7.5 psi, Timer & Alarm: 99hr 59min (Delay & Continuous run), Error status & Timer-end Display: Digital LCD with Back-Light Function Controller: Digital Fuzzy Controller with Jog-Dial Knob (Turn+Push) Safety Circuit: Over-Temp./-Current protection, Sensor Error Detection, Leakage Breaker Material: Stainless-steel (#304)-Internal, Powder Coated steel-External, 40 mm, Packing Size (mm): 630 x 530 x 972 & Gross Weight (kg) 54kg	
7	Water Distillation Unit	Capacity: 4 Liters/Hour Power: 220Volts, 50/60Hz, Good distillate quality; conductivity approx. 2.3 $\mu\text{s} / \text{cm}$ at 25 °C • Thermostatic low water cut-off. • Economical energy consumption by distillation of the heated cooling water. • Evaporator easily accessible for cleaning purposes. • Distillate withdrawal through outlet at the condenser. • CO2 degassing through outlet in the condenser. • Cooling water temperature indicated through a thermometer. • Heating element, evaporator and condenser made of stainless steel. • Outer housing made of electrolytically galvanised sheet steel, electrostatically powder coated with epoxy resin. • Cooling water in- and outlet 1/2" ($\varnothing$ approx. 12.7 mm). • Hoses for water in- and outlet	1
8	Fume Hood	External Size (W*D*H):1500*840*2150mm Internal Size (W*D*H): 1380*730*745mm Max Opening: 520mm Work Surface Height: 750mm Blower: Built-in centrifugal blowers; Speed adjustable with 9 levels Air Velocity: 0.3~0.8m/s System Exhaust Volume: 990m ³ /h Noise: $\leq 68\text{dB}$ LED Lamp: 16W*1 UV Lamp: 30W Emission of 253.7 nanometers for most efficient decontamination Front Window: Motorized; 5mm toughened glass, anti-UV Material: Exterior Body: Cold-rolled steel with anti-bacteria powder coating. Work table: Chemical resistant phenolic resin Waterproof Socket: 2 pcs Power Supply: AC220V $\pm 10\%$, 50/60Hz; 110V $\pm 10\%$, 60Hz Consumption: 500W Standard Accessory: Water tap; Gas tap; Water sink; Base stand; UV lamp*2; LED lamp; Socket; 4 meters exhaust duct; active carbon filter; Foot switch.	1
9	Water bath shaker	Capacity: 18 Lit. Max.Q'ty of Erlenmeyer Flask: 250 ml x6 ea 500 ml x4 ea 1000 ml x1 ea Temp. Range & Accuracy: Room Temp. +50C to 1000C, + 0.10C Temp. Resolution: 0.10C Display, 0.10C-Control Temp. Uniformity & Probe: +0.50C , PT100 Heating Power: 1.4 kW Shaking Speed & Resolution: 20 ~ 250 rpm, 1rpm - Display/1rpm - Control Shaking Stroke (mm): 15, 20, 30 Available (20 as factory Default) Timer & Alarm: 99hr 59min (Delay & Continuous run), Error status & Timer-end Display: Digital LCD with Back-Light Function Controller: Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push) Safety Circuit: Over-Temp./-Current protection, Sensor Error Detection Rack: Included Stainless steel Spring Rack : Universal- type Drain Valve: Mounted Material: Stainless steel (#304)-Internal, Powder Coated steel-External	1

Estimated Cost for Lot-5 Rs.30.430 million

LOT-E			
Sr. No	Equipment Details	Specs	Qty.
1	pH meter	Measuring Parameter: pH / ORP / °C / °F • Memory 100 data sets • LCD display pH : • pH Range: -2.00 to 16.00 pH • pH Resolution: 0.01 pH • pH Accuracy: ±0.01 pH • Temperature Range (Meter): 0.0 to 100.0 °C • Temperature Resolution: 0.1 °C • Temperature Accuracy: ±0.3 °C / ±0.5 °F ORP: • Range: ±2000 mV • Resolution: 0.1 mV (±199.9 mV); 1 mV (beyond) • Accuracy: ±0.2 mV (±199.9 mV); ±2 mV (beyond) • Certifications: CE Marked	1
2	Conductivity Meter	Display: 6.5 inch LED Screen Parameters: conductivity, Resistivity, TDS, salinity, temperature Conductivity measuring range: (0.00~20.00) µS/cm (20.0~200.0)µS/cm (200~2000) µS/cm (2.00~20.00) mS/cm (20.0~200.0) mS/cm Conductivity resolution : 0.01/0.1/1µS/cm 0.01/0.1mS/cm Conductivity Accuracy Electrode: ±1.0%FS Instrument: ±1.50%FS Resistivity measuring range 0 ~ 100 MΩ·cm TDS 0.00mg/L~100 g/L Salinity 0~100 ppt Temp measuring range: (-10~100)°C Temp resolution 0.10C Temp accuracy ±0.50C Data storage 300 sets Communication interfaces USB, wireless Bluetooth Working conditions Temperature: 5-40° Humidity: 5-85%. Auto recognition of eight kinds of standard conductivity solution. Able to switch between conductivity, TDS, salinity and resistivity	1
3	Magnetic stirrer	Material Plate: Ceramic Coated Aluminum (Chemical/Acid Resistance, Easy to Clear) Stirring Capa. & Motor Rating: Max. 20Lit, 9/4 W Speed & Control Resolution: 80 ~ 1,500rpm, 5rpm Temp. Range & Accuracy: Max. 3800C, +0.30C at Set Temperature. Temp. Resolution: 0.10C-Display, 0.50C-Control Temp. Power/Consumption: 600W Timer & Alarm: 99hr 59 min, Controller: Digital Feedback Controller with Jog Shuttle Switch (Turn+Push), Safety Circuit: Over temp. Protection. Permissible Temp. & RH%: Ambient +5~500C, 85%RH.	2
4	Weighing balance	Maximum capacity: 600g Readability: 0.01g Tare Range: Full range Pan Size: 120mm ø Weighing Units: g, lb, oz, N, GN, ct, dr, dwt, mm, ozt, T, tl.H, tl.S, tl.T Calibration: External calibration / Internal manual calibration Display: Backlit LCD with 18mm-high digits Internal rechargeable battery Operating Temperature: 0° to 40°C Draught Shield: Round 132mm ø x 90mm Overall Dim: 174x252x80mm (wxdxh)	2
5	Humidifier	Product designation Air humidifier Automatic switch-off yes Aroma container yes Humidification output in ml/hour. 300 Output in watts ca. 25 Max. room size in m² 30 Settings Continuously adjustable Tank size approx. 4 l Ultrasound humidification technology yes Water level gauge Visible water level with colour	2
6	Chlorophyll Meter	Measuring mode 2 wavelengths optical density difference Measuring area 2 mm×3 mm Sensor Silicon semiconductor photodiode Display mode LCD, 4 decimal places, tendency chart Measuring range -9.9 to 199.9 SPAD units Memory capacity 30datum, automatically calculate and display average value Power 2 AA batteries (1.5V) Battery life More than 20,000 times Test interval 2s Accuracy Within ±1.0 SPAD units (for SPAD value between 0 and 50) Repeatability Within ±0.3 SPAD units (for SPAD value between 0 and 50) Reproducibility Within ±0.5 SPAD units (for SPAD value between 0 and 50) Working environment 0-50°C Other functions alarm; calibration Weight 0.8KG Size 23*19*11CM Certification :CE, ISO9001, ROHS, FCC, TUV, SCM Place of Origin :Japan MOQ :1 set Packaging Details :45-23-38cm Warranty :1 year except consumable 1.2M 1 1.2M Spectral Wavelength Range :380nm to 780nm Sensor :CMOS linear image sensor Measuring Range :1 to 200,000lx Repeatability (Standard Illuminant A) :Illuminance: 1%+1 digit (30 to 200,000lx), 5%+1 digit (1 to 29.9lx)	1

7	Thermo Hygrometer	Resolution: 0.1 Deg.C (0.2 Deg.F) • Humidity Range: 10pct - 99pct RH • Temperature range:-50 - 70 Deg.C (-58 - 158 Deg.F) • Size(L x W x H):10.50 x 9.70 x 2.20 cm • Display type: Digital	2
8	Digital Micro Meter	Range: 0-25mm least count : .001mm	1
9	Colorimeter	Glass Filter: Glass Filter 07 Adjustment: Zero Holder Sample: Rectangular 10 mm (0.5 ml) Range: 405-660 nm Output: 0-1.99 Minimum Volume: 0.5 ml Detector: Photodiode Light Battery Backup: Yes Power Display: Yes with standard accessories, calibration method and calibration free of charge for 6 months	1
10	Light Meter/ Lux Meter	With Standard Accessories and Calibration Specs: • Mini lux meter with stable, safe and reliable measurement. • Wide measurement range: 0-200,000 lux • Measuring unit is switchable: Lux or FC. LCD display with backlight: You can see it clearly in darkness	1
11	Dissecting/inverted microscope with florescence and accessories	Optical System: Antifungal Infinity corrected optical system Stand: Ergonomically designed sturdy stand of anti-rust material Viewing Body: Siedentopf Trinocular head, 30° inclined, 360° rotatable, IPD 48-75mm Eyepieces: Wide Field eyepieces WF 10x/22mm paired with eyeguards, antifungal coating Nosepiece: Quadruple Reverse angle nosepiece (ball-bearing type) with rubber grip Objectives: LW series infinity corrected Fluorescence Plan achromatic objectives, antifungal coating 4x/NA 0.13mm/WD 16.00mm 10x/NA 0.25/WD 10.0mm 20x/NA 0.40/WD 5.05mm Stage: Fixed plain stage 160mm x 240mm Condenser: Long working distance Condenser NA 0.30, suitable for Phase Contrast/BF with Phase Contrast Slider. Focusing: Co-axial coarse and fine focusing on rack and pinion. Tension adjustment control provided. All brass gears. Transmitted Illumination: 6V-30W Halogen with intensity control. Up to 500 hours of Halogen bulb life.	1
12	Phase contrast microscope with computer and camera	Single mold sturdy stand with anti-rust materials. Extended base with hand rests for enhanced stability and comfort. Viewing Body: Siedentopf Trinocular tube, 30° inclined, 360° captive rotation, interpupillary distance 48-75mm Eyepieces: Wide Field focusable paired eyepieces WF 10x/20mm, with eyeguard, antifungal coatings Nosepiece: Reverse angle quadruple nosepiece (ball bearing type) with click stops and rubber grip Objectives: RP series DIN Infinity Corrected Phase Plan Achromatic objectives; antifungal coatings 4x/NA 0.10/WD 30.0mm 10x/NA 0.25/WD 4.5mm 40x (spring loaded)/NA 0.65/WD 0.50mm 100x (spring loaded, oil)/NA 1.25/WD 0.13mm Sub-Stage Phase Turret: Phase Contrast Kit comprising of phase telescope, phase turret and green filter Mechanical Stage: RACKLESS X-axis, double plate mechanical stage plate size 200 x 140mm, X/Y travel range 78 x 54mm. Low drive movement controls. Hard coated surface for scratch resistance. All brass gears. Focusing: Feather touch attrition free coaxial coarse and fine focus adjustment with auto tension adjustment for longer life and ultra smooth movement. Weighted fine focus. Illumination: Halogen 6V-30W illumination with variable illumination control. Up to 500 hours of Halogen bulb life.	1
13	Data Logger	With sensors -40 to 85°C Temperature measuring range: -40°C~85°C Temperature accuracy: ±0.5°C(-20°C~40°C; ±0.1°C(other) Humidity range: 10%~99% Humidity accuracy: ±3%RH(25°C,20%~90%RH); ±5%RH(other) Resolution: temperature 0.1°C, humidity 0.1%RH Record capacity: 16000 points (max) Record interval: 10sec~24 hour continuously set Data interface: USB Power supply: single-use 3.6V lithium battery or powered via USB Battery life: two years at room temperature with 15 minutes record interval and buzzer alarm disabled. Ambient temperature: -30°C~70°C.	1

Estimated Cost for Lot-1 Rs.35.397 million

LOT-F			
Sr. No	Equipment Details	Specs	Qty.
1	Laminar flow/Bio Hazard Safety Clean Bench	External Size (W*D*H):1300*820*2040mm Internal Size (W*D*H): 1200*500*570mm Work Surface Height: 750mm, Display: LCD Display, Airflow Velocity: Average of 0.3~0.5m/s Material: Main Body: Cold-rolled steel with anti-bacteria powder coating Work Table: 304 stainless steel, Side and Front Window: 5mm toughened glass, anti-UV, Pre-filter: Polyester fiber, washable HEPA Filter: 99.999% efficiency at 0.3um Noise: <65dB, LED Lamp: 12W*1 UV Lamp: 30W*1, Emission of 253.7 nanometers, Waterproof socket: Two, total load≤500W, Standard Accessory: LED lamp; UV lamp*2;Base stand; Gas Tap; Waterproof socket*2;	1
2	Incubator Shaker	Orbit: 1.9 cm (0.75 in.) Load Bearing Capacity (Metric): 15.9 kg Speed Range: 15 to 300 rpm ±1 (stacked); 15 to 500 rpm ±1 (unstacked) Temperature Range (Metric): Ambient plus 10°C to 80°C Wattage: 1100 W Amperage: 4.5 A Certifications/Compliance: UL, cUL, CE Temperature Range (English): 50°F to 140°F Temperature Resolution: ±0.1°C Frequency: 50/60 Hz Material: Stainless Steel Platform Height: 102.9 cm. Length (Metric): 83.8 cm, Length (Metric) Platform: 45.7 cm sController Type: Digital Motor Type: DC brushless Timer Range: Continuous or timed operation from 0.1 minute to 999 hours	1
3	Orbital shaker	Shaking Platform Size: 255×255 mm Shaking Motion: Orbital Motion Reciprocating Motion Speed Range & Max. Load: 10 ~ 300 rpm, 10kg Amplitude of Rotation (mm): 10 mm Motor: Brushless DC Motor Permissible Temp. & Moisture: Ambient +5 ~ 50°C, 80% Timer & Alarm: 99hr 59min (with Continuous run.), Error status & Timer-end Display: Large Size Digital LCD with Back-Light Function Controller: Digital Fuzzy Controller with Touch Button, Platform: Universal Platform for various Shapes & Size of Flask Max. Capacity of Flask Holder For 100ml: Standard by 346×346mm Universal Platform : 10 ea Flask Holders For 250ml: Standard by 346×346mm Universal Platform : 8 ea Flask Holders For 500ml: Standard by 346×346mm Universal Platform : 4 ea Flask Holders For 1000ml: Standard by 346×346mm Universal Platform : 4 ea Flask Holders University Platform, w346 x d346mm. Packing Dimension & Weight 345×420×h205 mm, 13.5kg Safety Circuit Overload Protector for Motor Power Consumption 45 W	1
4	Incubator& Drying chamber	A) Incubator: Heating-up time to 37 °C [min]: 8 Recovery time after 30 seconds door open at 37 °C [min]: 3 Temperature fluctuation at 37 °C [± K]: 0.1 Temperature range 8 °C above ambient temperature to [°C]: 100 Temperature variation at 37 °C [± K]: 0.3 Electrical data Nominal power [kW]: 0.4 Phase (Nominal voltage): 1~ Power frequency [Hz]: 50/60, Internal Dimensions Depth [mm]: 380 Height [mm]: 550 Width [mm]: 550. Energy consumption at 37 °C [Wh/h]: 60 Sound-pressure level [dB(A)]: 43 Fixtures Number of shelves (std./max.): 2/5.	1

5	Growth Chamber	Type: Controlled-environment growth chamber suitable for plant or seed culture studies under regulated temperature, humidity, and light conditions.; Chamber Capacity: Minimum 250–350 liters (or as specified) usable internal volume with stainless-steel interior and adjustable shelves.; Temperature Range: Programmable between +10°C to +60°C (without light) and +15°C to +50°C (with light operation).; Temperature Accuracy: $\pm 0.5^{\circ}\text{C}$ or better with uniform air circulation for consistent internal conditions.; Humidity Control: Adjustable relative humidity range from 40% to 90% RH, maintained via ultrasonic or steam humidification system.; Lighting System: Energy-efficient LED or fluorescent light array providing intensity up to 15,000–20,000 lux, programmable for day/night cycles.; Control System: Microprocessor or PLC-based digital controller with touchscreen or LED display for setting temperature, humidity, and photoperiod.; Timer Function: Programmable light/dark cycles with automatic operation.; Safety Features: Over-temperature and low-water protection, door interlock, and automatic power cut-off in case of fault.; Construction: Double-walled insulated chamber with corrosion-resistant exterior and lockable glass observation door.; Data Output: USB or RS-232/Ethernet port for data logging and monitoring.; Power Requirements: 220–240 V AC, 50/60 Hz, single phase.; Accessories: Adjustable shelves, humidity tray, and starter kit for calibration and maintenance.;	1
8	Automation of laboratory/Glass house	integrated, PLC or microprocessor-based control setup capable of automatically regulating temperature, humidity, light intensity, CO ₂ concentration, and irrigation. It should include high-precision digital sensors for environmental parameters, ensuring accurate monitoring and stable growing or experimental conditions. The system must control heating, cooling, ventilation, shading, and lighting functions automatically, with programmable photoperiod and irrigation scheduling. A user-friendly touchscreen interface and PC or cloud connectivity should enable real-time monitoring, data logging, and remote access. The setup should include alarms for parameter deviations, safety interlocks, and power backup compatibility. The complete system must be supplied with all sensors, controllers, and software, and include installation, calibration, user training, and at least a one-year warranty with local technical support.	1

The interested Bidders can request the Purchaser to coordinate visit of the premises/ site in order to get a better knowledge to prepare their bid proposals.

DELIVERY & IMPLEMENTATION SCHEDULE

7. Delivery and Documents

- 7.1 Delivery of all intended items shall be at PMAS-AAUR and it shall be maximum **Six (06) Weeks**.
- 7.2 In case of Import or as required otherwise, upon shipment, the Supplier shall notify the Purchaser the full details of the shipment, including Contract number, description of Goods, quantity and usual transport document. The Supplier shall mail the following documents to the Purchaser.
- (i) copies of the Supplier's invoice showing Goods' description, quantity, unit price, and total amount;
 - (ii) Original and two copies of the usual transport document (for example, a negotiable bill of lading, a non-negotiable sea waybill, an inland waterway document, an air waybill, a railway consignment note, a road consignment note, or a multimodal transport document) which the buyer may require to take the goods;
 - (iii) Manufacturer's or Supplier's warranty certificate;
 - (vii) Certificate of origin.
- 7.3 *Applicable Delivery Mode:* Delivered Duty Paid (**DDP**) of Incoterms 2011
- 7.4 Purchase order can be cancelled in case of delay exceeding **Four (04) Weeks**

8. Acceptance of Goods, Equipment and Works

The required deliverables mentioned under the List of Goods, Equipment and Works will be considered accepted on issuance of Letter of Completion/ Letter of Acceptance by PMAS-AAUR.

The procedure to be adopted to check conformance will be finalized by the Purchaser at the time of Contract Agreement.

9. Expected Time Duration for Delivery and Completion of Contract

The estimated time duration for completion of the above Goods, Equipment and Works is as following:

- 9.1 **Goods:** Time for delivery of goods is maximum (06) weeks from the signing of the Contract.
- 9.2 **Works:** Installation, Commissioning, and Operationalization of Goods/IT Equipments at the site is maximum (01) week after delivery of goods.
- 9.3 **Services:** Post-installation/ post-commissioning/ post-warranty services shall be for a period of 12 months after system has become operational. A Service Level Agreement (SLA) will be signed in this regard