

# **Tender Document**

**Supply of: Supply of Lab Equipment and Chemicals**



**University of Baltistan, Skardu**  
**Kargil Road, Hussainabad Skardu**  
**Phone No. 05181-990069-70**

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## Section-I

## Invitation to Bid

**No: UOBS/TO/0522/01**

**Date: 28 May, 2022**

**Subject: Supply of Lab Equipment and Chemicals**

Tenders are hereby invited from the supplier having relevant experience and dealing with the below mentioned items for University of Baltistan Skardu (UOBS).

<b>S.No</b>	<b>Item &amp; Description</b>
<b>01</b>	<b>Botany, Zoology and Chemistry Lab Equipment and Chemicals</b> Details specification are mentioned on Bid Documents

### **Terms and Condition are as under:**

1. Tender should be sealed.
2. Tenders procedure will be based upon **“Single Stage –One Envelope”** bidding method as prescribed under PPRA rules.
3. Detailed bid documents can be obtained from Treasurer Office, Main Campus Hussain Abad, Skardu on payments of Rs. 2000/- as non-refundable bid documents fee or may be download from the University Website [www.uobs.edu.pk](http://www.uobs.edu.pk).
4. Ambiguous, conditional and void tenders are liable to be rejected.
5. University reserves the right to reject/cancel the tender as per PPRA 2004.
6. Sealed tenders along with **4% earnest money of the total tender amount /cost** in shape of call deposit from any scheduled bank in favor of University of Baltistan Skardu should reach in the office of the undersigned by 16 June, 2022 (11:00 AM) by Registered courier or by hand which will be opened in presence of committee and bidders at 11:30 AM on the same date.
7. Taxes will be deducted at source as per rules
8. The bidders should have at least 3 years’ professional experiences in the field of supply.
9. The prospective supplier has to executive an agreement with the University that he will provide the items as per quality and quantity prescribed in the bid documents before the supply order is issued.
10. Details specification are mentioned on Bid Documents.
11. Current Bank Statements of last six months.
12. In case of any query please contact Assistant Treasurer (P) on following phone numbers and email address.

**Assistant Treasurer (P)**

University of Baltistan Skardu

Phone: 05815-960069

(ghulam.nabi@uobs.edu.pk)

## **Section-II Instructions to Bidder**

Bidders are advised to read the contents of the Instruction to Bidders (ITB) carefully

### **1. Scope of Bid**

University of Baltistan invites sealed bids for supply of : **Supply of Lab Equipment and Chemicals**

### **2. Source of funds**

- a) Public Fund

### **3. Eligible Bidder**

- a) This Invitation for Bids is open to all original manufacturers/ their authorized agents/ suppliers and in case of imported goods their authorized agents/ importers/ suppliers in Pakistan for supply of Goods who must be registered (NTN, GST, on Active Tax Payers List of FBR etc.).
- b) Bidders under a declaration of ineligibility for corrupt and fraudulent practices issued by any Government (Federal, Provincial or Local) or a public sector organization are NOT ELIGIBLE. Bidders blacklisted by any Government (Federal, Provincial or Local) or a public sector organization are also NOT ELIGIBLE.

### **4. Corruption and Fraud**

- a) The Government of Pakistan defines Corrupt and Fraudulent Practices as “corrupt and fraudulent practices” which includes the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official or the supplier or contractor in the procurement process or in contract execution to the detriment of the procuring agencies; or misrepresentation of facts in order to influence a procurement process or the execution of a contract, collusive practices among bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the procuring agencies of the benefits of free and open competition and any request for, or solicitation of anything of value by any public official in the course of the exercise of his duty”.
- b) Indulgence in corrupt and fraudulent practices is liable to result in rejection of bids, cancellation of contracts, debarring and blacklisting of the bidder, for a stated or indefinite period of time.

### **5. Eligible Goods and Services**

- a) All goods and related services to be supplied under the contract shall conform to the policies of the Government of Pakistan in vogue. All expenditures made under the contract shall be limited to such goods and services.
- b) For purposes of this clause, (a) the term “Goods” includes any goods that are the subject of this Invitation for Bids and (b) the term “Services” includes related ancillary services such as transportation, insurance, installation, after sale service /support and trainings etc.

## **6. Cost of Bidding**

- a) The Bidder shall bear all the costs associated with the preparation and submission of its bid, and the Procuring Agency shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

## **The Bidding Procedure**

### **7. Applicable Bidding Procedure**

- a) The bidding procedure is governed by Public Procurement Rule 36 “Procedures of Open Competitive Bidding” sub-rule (a) “Single stage – One Envelope procedure”.
- b) The bidding procedure prescribed in the Invitation for Bids is explained herein below:

#### **Single Stage: One Envelope Procedure**

- i) The bid shall comprise a single package containing technical details and financial proposal bids.
- ii) The Procuring Agency shall first establish the “Eligibility and Qualification of Supplier” and then evaluate the technical details conforming the compliance of the offered item’s technical specifications with the demanded ones and other terms & conditions, without reference to the price and reject any Bid which shall not conform to the specified requirements;
- iii) The “FINANCIAL BIDS” of eligible and technically qualified Bidders shall be considered only;
- vii) The Bid of ineligible and/or technically non-responsive bidders shall be returned;
- viii) The bid found to be the most advantageous bid shall be accepted. In case, two bidders submit equal financial bid, the bidder with more experience shall be awarded contract.

## **The Bidding Documents**

### **8. Contents of the Bidding Documents**

- a) The goods required, applicable bidding procedures, and Contract Terms are prescribed in this Bidding Documents. In addition to the Invitation for Bids, this Bidding Documents include:
  - Instructions to Bidders (ITB)
  - Schedule of Requirements
  - Technical Specifications
  - Evaluation Criteria
  - Bid Forms
  - Draft Standard Contract including Special Conditions of Contract (with Annexures) and General Conditions of the Contract.

- b) The “Invitation for Bids” (IFB) Notice is not a formal part of the Bidding Documents and is included as a reference only.
- c) The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents. Failure to furnish all information required by the Bidding Documents or to submit a bid not substantially responsive to the Bidding Documents in every respect shall be at the Bidder’s risk and may result in the rejection of its bid.

## **9. Clarification(s) on Bidding Documents.**

A prospective Bidder requiring any clarification(s) on the Bidding Documents may notify the Procuring Agency in writing at the Procuring Agency’s address indicated in the Invitation for Bids. The Procuring Agency shall respond in writing to any request for clarification(s) of the bidding documents, which it receives not later than ten (10) days prior to the deadline for the submission of bids prescribed in the Invitation for Bids. Written copies of the Procuring Agency’s response (including an explanation of the query but without identifying the source of inquiry) shall be sent to all prospective Bidders that have received the Bidding Documents.

## **10. Amendment(s) to the Bidding Documents.**

- a) At any time prior to the deadline for submission of bids, the Procuring Agency, for any reason, whether at its own initiative or in response to a clarification(s) requested by a prospective Bidder, may modify the Bidding Documents by amendment(s).
- b) All prospective Bidders that have received the Bidding Documents shall be notified of the amendment(s) in writing through Post, e-mail or fax, and shall be binding on them.
- c) In order to allow prospective Bidders reasonable time for taking the amendment(s) into account in preparing their bids, the Procuring Agency, at its discretion, may extend the deadline for the submission of bids.

## **Preparation of Bids**

### **11. Documents comprising the Bids.**

- a. The Bid shall comprise the Bid Forms of this Bidding Document and all those ancillary documentations that are prescribed for the eligibility of the bidders and goods and ancillary services that are found necessary and highlighted in the Bid Forms.
- b. The Bidder shall complete the Bid Forms and an appropriate Price Schedule furnished in the bidding documents, indicating the goods to be supplied, a brief description of the goods, their general and specific characteristics, ancillary services that the bidder is willing or required to provide along with the proposed price.

### **12. Bid Price**

- a) The Bidder shall indicate on the appropriate form prescribed in this Bidding Document the unit prices and total bid price of the goods, he proposes to supply under the Contract.

- b) Form prescribed for quoting of prices, should be typed and printed on the bidder's letterhead. Any alteration/correction must be initialed. Every page of the bid is to be signed and stamped at the bottom.
- c) The Bidder should quote the prices of goods according to the technical specifications as provided in this document. The technical specifications of goods, different from the required specifications, shall straightway be rejected.
- d) The Bidder is required to offer a competitive price. All prices must include all the taxes and duties, where applicable. If there is no mention of taxes, the offered/ quoted price shall be considered as inclusive of all prevailing taxes/ duties. The bidder shall be responsible for all new taxes, if any, levied by the Government until completion of the contract.
- e) The benefit of exemption from or reduction in the taxes and duties shall be passed on to the Procuring Agency.
- f) Prices offered should be for the entire quantity of an item demanded in the Schedule of Requirement; partial quantity offers shall straightaway be rejected. Conditional offer shall also be considered as non-responsive Bid.
- g) While making a price quote, trend/ inflation in the rate of goods and services in the market should be kept in mind. No request for increase in price due to market fluctuation in the cost of goods and services shall be entertained.

### **13. Bid Currencies**

- a) Prices shall be quoted in Pak Rupees.

### **14. Supporting Documents to judge specification**

- a) The bidder shall provide the leaflets/brochures/catalogues of quoted products with the bid.

### **15. Documentation on Eligibility of Bidders**

- a) Bidder shall furnish, as part of its bid (along with Bid Form & Price Schedule) the documentary evidence mentioned in the eligibility criteria for the Bidder's eligibility and its qualifications to perform the Contract if his bid is accepted: -
  - Minimum three (03) years of experience in supply of Lab Equipment and Chemicals.
  - Registered with Income & Sales Tax Departments and on the Active Tax Payers List of FBR (where applicable).
  - Affidavit duly attested by the Oath Commissioner/ Notary Public to the effect that the respective bidder is not black listed by any Government (Federal, Provincial or Local) or a public sector organization.
  - Manufacturer's warranty (One year).
  - Bank statements of last of six months.

Details are covered in the **Section IV** containing Eligibility criteria.

### **16. Bid Security**

- a) Bidder shall furnish, as part of its bid, a Bid Security @ 4% of the total Quoted Bid Value in Pak Rupees. in the shape of pay order/demand draft/ call deposit in the name of University of Baltistan, Skardu. Unsuccessful bidder's Bid Security shall be discharged or returned soon after announcement of the successful bids.



- b) The successful Bidder's Bid Security shall be discharged upon signing of contract, successful delivery of goods, furnishing of the performance/bank guarantee and confirmation of the performance/bank guarantee by University of Baltistan, Skardu with the Bank of the successful bidder.
- c) The bid Security may be forfeited:

if a Bidder withdraws its bid during the period of bid validity;

Or

In the case of a successful Bidder, if the Bidder fails to sign the Contract or fails to provide a performance security.

## **17. Bid Validity**

- a) Bids shall remain valid for 90 days after the date of opening of bid prescribed by the Procuring Agency. A bid having validity for a shorter period shall be rejected by the Procuring Agency as non-responsive.
- b) The Procuring Agency shall ordinarily be under an obligation to process and evaluate the bid within the stipulated bid validity period. However, under exceptional circumstances and for reason to be recorded in writing, if an extension is considered necessary, all those who have submitted their bids shall be asked to extend their respective bid validity period. Such extension shall be for not more than the period equal to the period of the original bid validity.
- c) Bidders who;
  - I. agree to the Procuring Agency's request for extension of bid validity period shall not be permitted to change the substance of their bids; and
  - II. do not agree to an extension of the bid validity period shall be allowed to withdraw their bids without forfeiture of their bid securities.

## **Submission of Bids**

### **18. Sealing and Marking of Bids**

- a) The envelopes shall be marked in bold and legible letters to avoid confusion.
- b) The inner and outer envelope shall:
  - I. be addressed to the Procuring Agency at the address given in the Invitation for Bids; and
  - II. Bid Reference No. indicated in the Invitation for Bids, and a statement: "DO NOT OPEN BEFORE," the time and the date specified in the Invitation for Bids for opening of Bids.
- c) The bids must be delivered by hand or by courier so as to reach the office of Assistant Treasurer(P), University of Baltistan, Skardu on the date and time prefixed in the Invitation for Bids (IFB). Bids submitted through telegraph, telex, fax or email shall not be entertained.

### **19. Deadline for Submission of Bids**

- a. Date, Time and Venue mention in the Invitation to Bid.
- b. The Procuring Agency may, in its discretion, extend the prescribed deadline for the submission of bids by amending the bidding documents in accordance with ITB in which case all rights and obligations of the Procuring Agency and

Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

## **20.Late Bids**

Any bid received by the Procuring Agency after the deadline for submission of bids prescribed by the Procuring Agency pursuant shall be rejected and returned unopened to the Bidder.

## **21.Withdrawal of Bids**

- a) The Bidder may withdraw its bid after the bid's submission and prior to the deadline/closing time & date prescribed for submission of bids.
- b) No bid may be withdrawn in the period between deadline for submission of bids and the expiration of the period of bid validity. Withdrawal of a bid during this period may result in forfeiture of the Bid Security submitted by the Bidder.

## **22.Opening & Evaluation of Bid.**

- a) The bids received shall be opened by the Procuring Agency publically in the presence of the Bidders or their representatives who may choose to be present University of Baltistan, Skardu.
- b) All Bidders in attendance shall sign an attendance sheet.
- c) Prior to the detailed evaluation, the Procuring Agency shall determine the substantial responsiveness of bid to the bidding documents. For purposes of this clause, a substantially responsive bid is one, which conforms to all the terms and conditions of the bidding documents without material deviations. Deviations from, or objections or reservations to critical provisions, such as those concerning Applicable Laws, delivery schedule, taxes & duties etc. shall be deemed to be a material deviation. The Procuring Agency's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- d) The Procuring Agency shall open one Bid at a time and read out aloud its contents which may include name of the Bidder, items bided for and unit prices and total amount of the Bid. The Procuring Agency may choose to announce any other details which it deems appropriate if not in conflict with the Public Procurement Rules-2004, specifically Rule 28 (Opening of Bids).
- e) In the Financial Bids the arithmetical errors shall be rectified on the following basis: -
  - If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected.
  - If the Bidder does not accept the correction of the errors, its bid shall be rejected, and its Bid Security may be forfeited.
  - If there is a discrepancy between words and figures, the amount in words shall prevail.

## **23. Rejection of Bids**

- a) The Procuring Agency may reject any or all bids at any time prior to the acceptance of a bid under Public Procurement Rules (PPR) 2004. The Procuring Agency may upon request communicate to any Bidder who submitted a bid, the grounds for its rejection of any or all bids, but is not required to justify those grounds.

- b) Conditional or incomplete bid/bids shall be rejected.
- c) The bid/bids received with over-writing, cutting and doubtful figure shall be rejected.
- d) The Procuring Agency incurs no liability, solely by virtue of its invoking Rule 33.1 of PPRA 2004, towards Bidders who have submitted bids.
- e) Notice of the rejection of any or all bids shall be given promptly to the concerned Bidders that submitted bids.

## **24. Re-Bidding**

- a) If the Procuring Agency rejected all bids, it may call for a re-bidding.
- b) The Procuring Agency before invitation for re-bidding shall assess the reasons for rejection and may revise specifications, evaluation criteria or any other condition for Bidders, as it may deem necessary.

## **25. Announcement of Evaluation Report**

Announcement of Evaluation Report will be as per PPRA, 2004.

## **26. Contacting the Procuring Agency**

- a) No Bidder shall contact the Procuring Agency on any matter relating to its bid, from the time of the bid opening to the time of announcement of Evaluation Report. If a Bidder wishes to bring additional information to the notice of the Procuring Agency, it should do so in writing.
- b) Any effort by a Bidder to influence the Procuring Agency in its decisions on bid evaluation, bid comparison, or Contract award may result in the rejection of the Bidder's bid. Canvassing by any Bidder at any stage of the bid evaluation is strictly prohibited. Any infringement shall lead to disqualification.

## **Award of Contract**

### **27. Acceptance of Bid and Award Criteria**

- a. The Bidder whose bid is found to be most closely conforming to the Evaluation Criteria prescribed and having the lowest evaluated bid, if not in conflict with any other law, rules, regulations or policy of the Government of Pakistan, shall be awarded the Contract, within the original or extended period of bid validity.

### **28. Procuring Agency's Right to vary quantities at the time of Award**

- a. The Procuring Agency reserves the right at/after the time of award of Contract to increase or decrease, the quantity of goods up to 15% as originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.

### **29. Notification of Award**

- a) Prior to the expiration of the period of bid validity, the Procuring Agency shall notify to the successful Bidder in writing that his bid has been accepted.
- b) The notification of award shall constitute the formation of the Contract between the Procuring Agency and the successful Bidder.
- c) The enforcement of the Contract shall be governed by Rule 44 of the PPR-2004.

## SECTION III

### SCHEDULE OF REQUIREMENTS & TECHNICAL SPECIFICATIONS

#### Schedule of Requirements:

The Supply of Lab Equipment and Chemicals) shall be delivered and installed in accordance with the following schedule of requirements: -

S. No	Milestone	Time Period
1 (a)	Supply of Lab Equipment and Chemicals	Within Three weeks from date of issuance of Supply order

**Penalties for Late deliveries of supplies:** The supplies shall be delivered in accordance with the Purchase Orders to be issued by University of Baltistan, Skardu. In case of late deliveries, penalties at the following rates will be applied:

Mode of Penalty	100% Quantity as per Purchase Order	Total delivery period
Without penalty	21 days	21 days
With penalty @ 1% per day after 21 days of issuance of Purchase Order upto maximum of 10% of the total contract value.	10 days	31 days

# Technical Specifications

Annexure-1 Botany Lab Equipment			
S r. N o	Name of items	Specification	Q t y
1	Electronic Balance (portable)	<p><b>Top-loading Balances</b></p> <p><b>Specification</b>            Capacity:320g            Minimum display:0.001g            Linearity: ±0.002g            Operating Ambient Temperature: 5-40°C            Temperature Coefficient Sensitivity (ppm/C): ±3            Weight (kg) approx.: 3.8kg            Power requirement: AC adaptor ( DC12V, 1A)</p> <p><b>Features:</b></p> <ul style="list-style-type: none"> <li>• Equipped with UNIBLOC one-piece aluminum mass sensor for highly stable measurements and mechanical shock resistance.</li> <li>• Equipped with revolutionary new feature that allows quickly and easily adjusting display stability and speed during operation</li> <li>• Equipped with dedicated 5-way menu operation key for improved operability.</li> <li>• Equipped standard with extra large glass wind shield.</li> </ul>	0 1
2	Autoclave with electric supply (Large size)	<p><b>Digital Autoclave Vertical</b></p> <p>This product has a various applications such as sterilizing culture medium, glassware, metal instruments, and disposables.</p> <p>Following features for user's safety and convenience</p> <ul style="list-style-type: none"> <li>• The grounded circuit prevents a short circuit and over current.</li> <li>• Accurate temperature controls by the Digital PID controller.</li> <li>• After setting the temperature and time, just press "the start" button, then the automatic process occurs.</li> <li>• Easy to use door handle and internal material is powder coated stainless for extra durability.</li> <li>• Stable standing by use of the parking casters.</li> <li>• For user's safety, auto and manual safety valve installation.</li> <li>• Temperature range: 125°C</li> <li>• Accuracy: ±5°C</li> <li>• Pressure: 1.2kg / cm<sup>2</sup></li> <li>• Timer: 99minutes or infinity</li> <li>• Baskets: 2 wire mesh type baskets</li> <li>• Pt 100 sensor</li> <li>• Capacity: 60 Litters</li> <li>• Internal material: Powder coated steel</li> </ul>	0 1

		<ul style="list-style-type: none"> <li>Power: 2300 watts</li> </ul>	
3	Centrifuge 5000 rpm	<p><b>High Speed Micro centrifuge</b></p> <p><b>Features</b>  Acceleration rates: 10  Program memory: 10  Pulse (short run) to 90 seconds</p> <p>Deceleration rates: 10  Timer: 0-99 minutes  Run in speed or Rcf</p> <p><b>Standard features</b></p> <ul style="list-style-type: none"> <li>Stainless steel bowl</li> <li>Alloy and steel main frame with composite panels</li> <li>World brand leading industrial grade inverter</li> <li>High quality European brushless motor</li> </ul> <p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>Cleanliness &amp; Rust Free</li> <li>Strong Light &amp; Quiet</li> <li>Reliability &amp; Accuracy</li> <li>Quiet, Cool &amp; Reliable</li> </ul> <p><b>Safety features</b></p> <ul style="list-style-type: none"> <li>Multi-point lid locking system containment, Imbalance vibration detector with auto reset</li> <li>Lid lock detector. Over speed sensor, Set inverter values, Barrier ring</li> <li>Motor overheat sensor, Best Safety for Lid, Easy "eye" volume loading</li> <li>Unable to run with an open lid, Safe detection of speed</li> <li>Electronic safety of speed, Metal protection of chamber, Motor protection</li> </ul> <p>Speed 500-12000Rpm  Max Rcf 13500G  Rotor Included BR5424: 24 x 1.5-2.2ml tube, fixed angle rotor  Max speed 12000 Rpm 22,000G. Tube size 40 x 11mm  Timer 0-99Minutes</p>	0 3
4	Dissecting Microscope	<p><b>Dissecting Microscope</b></p> <p><b>Head:</b> Binocular, 45° inclined; 360° rotating.  <b>Dioptric adjustment:</b> Left eyepiece.  <b>Eyepieces:</b> WF10x/21 mm, high eyepoint, secured by screw and with rubber cups.  <b>Objective:</b> Achromatic 2x-4x with anti-fungus treatment.  <b>Working distance:</b> 100 mm.  <b>Stand:</b> High-grade, precision fixed with handle and focus.  <b>Focusing:</b> Rack and pinion focusing mechanism.  <b>Illumination:</b> EcoLED™ swiveling incident and transmitted, with brightness control, rechargeable batteries. Color temperature: 6,300 K. Multi-plug 100-240Vac/5Vdc external power supply.</p>	0 1
5	Distillation Plant	<p><b>Water Distillation System with Reservoir</b></p> <p>Fully Automatic auto start stop, auto switch off heater in case of no feed of water. Water still produces and reserves distilled water automatically, with its fine and jumbo size reservoir, this unit offers exceptional valve for the user.  It is very easy and safe to operate with indicator such as reservoir full indicator, distillation indicator, and with safety devices such as over temperature protector, water float level sensor and water supply cut off.</p> <ul style="list-style-type: none"> <li>Capacity; 4Litter per hour</li> <li>Reservoir: 30 lit stain less steel tank</li> <li>Heater: 3.0Kw</li> <li>Pipe pin heater</li> <li>12Litter boiling tank</li> </ul> <p><b>Dimensions:</b>  - Distiller; 205 x 205 x 300mm</p>	0 1

		- Reservoir: 275 x 275 x 400mm																																			
6	Flame Photometer	<p><b>PFP7 Industrial Flame Photometer</b></p> <ul style="list-style-type: none"> <li>• Designed for industrial analysis</li> <li>• Supplied with Na, K, Li, Ba and Ca filters</li> <li>• Low temperature, single channel</li> <li>• Flame failure safety system</li> <li>• Operates with propane, butane, natural gas or LPG</li> <li>• 3 year warranty</li> </ul> <p>The PFP7 is a low temperature, single channel flame photometer that is designed for the routine determination of sodium, potassium, calcium, barium and lithium concentrations. The flame failure safety system makes these products ideal for use in industrial and educational environments. The use of fine and coarse sensitivity controls allows for accurate measurements each and every time.</p> <p><b>Technical Specification</b></p> <table> <tr> <td>Parameter</td> <td>PFP7</td> </tr> <tr> <td>Range</td> <td>0 to 199.9ppm</td> </tr> <tr> <td>Limits of detection</td> <td>0.2ppm</td> </tr> <tr> <td>Na</td> <td></td> </tr> <tr> <td>K</td> <td>0.2ppm</td> </tr> <tr> <td>Li</td> <td>0.25ppm</td> </tr> <tr> <td>Ca</td> <td>15ppm</td> </tr> <tr> <td>Ba</td> <td>30ppm</td> </tr> <tr> <td>Reproducibility</td> <td>&lt;1% coefficient of variation for 20 consecutive samples using 10ppm Na set to read 50</td> </tr> <tr> <td>Linearity</td> <td>&lt; 2% error when 3ppm Na/K and 5ppm Li are set to read 100</td> </tr> <tr> <td>Stability</td> <td>&lt; 2% drift over 5min when continuously aspirating 10ppm sample set to 50.0. Specificity Interference from Na/K and Li equal in concentration to test element will be &lt;0.5%</td> </tr> <tr> <td>Recorder output</td> <td>Nominal 1.00V for a reading of 100.0</td> </tr> <tr> <td>Electrical supply</td> <td>90-125V or 190-250V @50/60Hz</td> </tr> <tr> <td>Air supply</td> <td>Moisture and oil free, 6 litre/min @ 14psi</td> </tr> <tr> <td>Fuel</td> <td>Propane, butane, natural gas or LPG</td> </tr> <tr> <td>Size (w x d x h)</td> <td>420 x 360 x 300mm</td> </tr> <tr> <td>Weight</td> <td>8kg</td> </tr> </table>	Parameter	PFP7	Range	0 to 199.9ppm	Limits of detection	0.2ppm	Na		K	0.2ppm	Li	0.25ppm	Ca	15ppm	Ba	30ppm	Reproducibility	<1% coefficient of variation for 20 consecutive samples using 10ppm Na set to read 50	Linearity	< 2% error when 3ppm Na/K and 5ppm Li are set to read 100	Stability	< 2% drift over 5min when continuously aspirating 10ppm sample set to 50.0. Specificity Interference from Na/K and Li equal in concentration to test element will be <0.5%	Recorder output	Nominal 1.00V for a reading of 100.0	Electrical supply	90-125V or 190-250V @50/60Hz	Air supply	Moisture and oil free, 6 litre/min @ 14psi	Fuel	Propane, butane, natural gas or LPG	Size (w x d x h)	420 x 360 x 300mm	Weight	8kg	0 1
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		<p>Dimension 2.4" x 6.3" x 1.4" (6.1 x 16.0 x 3.6 cm)</p> <p>Display Size 1.43" x 2.15" (3.6 x 5.5 cm); 2.6" diag (6.6 cm)</p> <p>Display resolution 160 x 240 pixels</p> <p>Display Type transfective, 65K color TFT</p> <p>Weight 8.1 oz (230 g) with batteries</p> <p>Battery type 2 AA batteries (not included); NiMH or Lithium recommended</p> <p>Battery life 16 hours</p> <p>Waterproof IPX7</p> <p>Interface high speed mini USB and NMEA 0183 compatible</p> <p>Memory/History 4 GB</p> <p><b>Maps &amp; Memory</b></p> <p>Ability to add maps</p> <p>Basemap</p> <p>Automatic routing (turn by turn routing on roads) for outdoor activities Yes (with optional mapping for detailed roads)</p> <p>Map segments 3000</p> <p>BirdsEye 250 BirdsEye Imagery files</p> <p>Includes detailed hydrographic features (coastlines, lake/river shorelines, wetlands and perennial and seasonal streams) no (additional mapping needed)</p> <p>Includes searchable points of interests (parks, campgrounds, scenic lookouts and picnic sites) no (additional mapping needed)</p> <p>Displays national, state and local parks, forests, and wilderness areas no (additional mapping needed)</p> <p>External memory storage yes (32 GB max microSD™ card)</p> <p>Waypoints/favorites/locations 5000</p> <p>Tracks 200</p> <p>Navigation Track Log 10000 points, 200 saved tracks</p> <p>Navigation Routes 200, 250 points per route; 50 points auto routing</p>	
8	Hot plate with magnetic stirrer	<p><b>Hot Plate Model K-HYHS12 Korea</b></p> <p>Hot plate with manual temperature knobs</p> <ul style="list-style-type: none"> <li>• Temperature range up to 320°C</li> <li>• Wattage: 650W</li> <li>• Plate size (WxDxH); 210 X 220 X 120</li> <li>• Power: 220VAC, 50/60Hz.</li> </ul>	0 1
9	Incubator	<b>Digital Incubator</b>	0 1





		<p>Included in the package is an Abbe type condenser. It can be centred through a double-control system and adjusted in height through a rack-and-pinion mechanism by means of control knobs located on both sides of the microscope stand.</p> <p>The condenser is also fitted with an iris diaphragm whose aperture can be adjusted with graduated reference scale.</p> <p><b>Eyepiece:</b> Wide Field 10X / 20 mm</p> <p><b>Objectives:</b> Achromatic: 4x, 10x, 40x, 100x (oil immersion)</p> <p><b>Revolver</b> Quintuple</p> <p><b>Stage</b> Double layer with mechanical sliding stage, 160x142 mm, moving range 76x52 mm</p> <p><b>Focusing</b> Coaxial coarse and fine focusing system, with focusing stop mechanism</p> <p><b>Condenser</b></p> <p><b>Camera Specifications</b></p> <p>Product Category            Digital Video Camera</p> <p>Image Sensor                7.0 MP 1/2.5" CCD Sensor (max. 12MP by interpolation)</p> <p>Lens                            F 3.0p-5.0 (f7.0mm)</p> <p>Focus range Macro:        10xm; Normal: 150cm-infinite Auto focus, continuous AF</p> <p>Face detection AF</p> <p>LCD Monitor                3" TFT LCD 300 degree rotation</p> <p>Zoom                         3X Optical Zoom + 5X Digital Zoom</p> <p>Shutter Type                Mechanical and Electronic Normal: 2 sec – 1/1500sec.</p> <p>Night Scene: 8 sec – 1/1500sec</p> <p>Storage Media              Build-in 32MB Memory; SD/MMC Card Slot Support up to 4GB</p> <p>Operation Modes            Movie record, still picture, music player, voice recorder, card reader</p> <p>Image resolution            High: 12MP (4000x3000); Standard: 7MP (3096x2328);</p> <p>Low:                         1MP (1280x980)</p> <p>Movie resolution            D1: 720x480, VGA : 640x480, QVGA : 320x240, 30fps</p> <p>Self-Timer                 10 / 2 second delay doubled with LED indicator</p> <p>Flash                         Auto / Auto &amp; Red – Eye reduction / Fill-in / Slow Sync / Off</p> <p>ISO: Auto, 100, 200, 400, 800, 1000</p> <p>File format                 JPEG (DCF), EXIF 2.2, DROF 1.1 PictBridge1.0, AVI (MPEG-4, Xvid) with DOCM Audio, WAV</p> <p>Battery type                 NP60 900mAH Li-ion Rechargeable Battery</p>	
1 5	Ph/EC meter bench top	<p><b>Bench Top pH meter For Quality Control Applications</b></p> <p>Range pH                    -2.00 to 16.00 pH</p> <p>Range Temperature        -9.9 to 120.0°C</p> <p>Resolution pH              0.01 pH</p> <p>Resolution Temperature    0.1°C</p> <p>Accuracy pH                ±0.01 pH</p> <p>Accuracy Temperature     ±0.4°C</p> <p>pH Calibration             Automatic, 1 or 2 point with 5 memorized buffer values (pH 4.01, 6.86, 7.01, 9.18, 10.01)</p> <p>Temperature Compensation Automatic (with HI 7669/2W probe) or manual from -9.9 to 120°C</p> <p>pH Electrode                HI 1131B, glass-body, double junction, refillable, BNC connector, 1 m (3.3') cable (included)</p> <p>Temperature Probe         HI 7669/2W with 1 m (3.3') cable (included)</p> <p>Input Impedance            10<sup>12</sup> Ohm</p> <p>Power Supply                12 Vdc adapter (included)</p> <p>Environment                0 to 50°C (32 to 122°F); RH max 95%</p> <p>Dimensions                 240 x 182 x 74 mm (9.4 x 7.2 x 2.9")</p> <p>Weight                        1.1 kg (2.4 lb.)</p>	0 1
1 6	Pipette controller (Motorize)	<p><b>Pipette Controller</b></p> <p>Controller is light and fatigue free: weighs only 167g, including the battery. Its lithium battery has no memory effect and enables up to 12 hours of continuous use.</p>	0 2

	d Pipette Filter)	CAPPController can be charged while using. It's a powerful instrument, filling a 50mL pipette in less than 10 seconds. Fully adjustable speed-setting as well as gravity delivery and blow-out dispensing modes are available. Exchangeable 0.2 µm PTFE disc filter acts as shutdown system if overflow occurs. The exchangeable pipette holders are made of silicon and accommodate glass or plastic pipettes ranging from 0.1ml to 100ml. Vapour outlet for venting out corrosive liquids or fumes. Fully autoclavable nose cone and UV-resistant housing. Complies with CE and RoHS.							
17	Water bath with thermostat	<p><b>Digital Water Bath</b></p> <p>Digital water bath, microprocessor controlled. Digital indicator for Temperature, with over temperature cutoff sensor.</p> <ul style="list-style-type: none"> <li>➤ Temperature Range: Ambient 5°C ~ 99°C</li> <li>➤ Temp Accuracy: ± 0.1°C, Temp Uniformity: ±0.5°C</li> <li>➤ Capacity: 23liters</li> <li>➤ Dimensions: 590 x 350 x 230mm</li> </ul> <p>Material Internal: Stainless steel External: Steel, Powder coating Power Consumption; 1500Watts</p>	01						
18	Table top centrifuge	<p><b>High Speed Micro centrifuge</b></p> <p><b>Features</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Acceleration rates: 10</td> <td style="width: 50%;">Deceleration rates: 10</td> </tr> <tr> <td>Program memory: 10</td> <td>Timer: 0-99 minutes</td> </tr> <tr> <td>Pulse (short run) to 90 seconds</td> <td>Run in speed or Rcf</td> </tr> </table> <p><b>Standard features</b></p> <ul style="list-style-type: none"> <li>• Stainless steel bowl</li> <li>• Alloy and steel main frame with composite panels</li> <li>• World brand leading industrial grade inverter</li> <li>• High quality European brushless motor</li> </ul> <p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>• Cleanliness &amp; Rust Free</li> <li>• Strong Light &amp; Quiet</li> <li>• Reliability &amp; Accuracy</li> <li>• Quiet, Cool &amp; Reliable</li> </ul> <p><b>Safety features</b></p> <ul style="list-style-type: none"> <li>• Multi-point lid locking system containment, Imbalance vibration detector with auto reset</li> <li>• Lid lock detector. Over speed sensor, Set inverter values, Barrier ring</li> <li>• Motor overheat sensor, Best Safety for Lid, Easy “eye” volume loading</li> <li>• Unable to run with an open lid, Safe detection of speed</li> <li>• Electronic safety of speed, Metal protection of chamber, Motor protection</li> </ul> <p>Speed 500-12000Rpm Max Rcf 13500G Rotor Included BR5424: 24 x 1.5-2.2ml tube, fixed angle rotor Max speed 12000 Rpm 22,000G. Tube size 40 x 11mm Timer 0-99Minutes Dims 23x23x35Cms Weight 12Kg</p>	Acceleration rates: 10	Deceleration rates: 10	Program memory: 10	Timer: 0-99 minutes	Pulse (short run) to 90 seconds	Run in speed or Rcf	01
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19	Fume hood	<p>Fume Hood</p> <p><b>Features:</b> Micro processor control based fume hood, very strong inner material for the chemical reagent, Drain cup and port inside have a net to protect a back current, operation the hood air exhausts with storage cabinet inside, easy maintenance</p> <ul style="list-style-type: none"> <li>• 5.0 thickness tempered safety glass window, with up down slash sliding.</li> <li>• External Dimension: 1200 x 800 x 2350 (W x D x H mm)</li> <li>• Water Cock: Tip type PP, Valve 1/4" Angle, PE</li> <li>• Air Cock: Tip Type PP, Valve 1/4" Angle, PE</li> <li>• N2 Cock: Tip Type PP, Valve 1/4" Angle, PE</li> <li>• Light; 220 V Incandescent lamp, vapor proof</li> </ul>	01
20	Homogenizer	<p><b>Tissue Homogenizer</b></p> <p>Dispersing instrument for volumes of 0,5 to 100 ml. A wide speed range allows you to work at high circumferential speeds even with small rotor diameters. Perfect ergonomic finish. Immense speed stability with various media thanks to high performance 125 Watt</p> <p><b>Drive</b> Ideal for manual operation thanks to its light weight and ergonomic form Extremely mobile thanks to direct mains operation (no transformer required) Stainless steel dispersing elements (5 mm, 8 mm and 10 mm diameter) can be cleaned quickly and easily as they can be dismantled without tools Quick-release coupling makes changing the dispersing elements easy</p> <p><b>Including</b> 1. Dispersing element, S 10 N - 10 G: working range 1-100ml stator dia 10 mm 2. Stand R 104 Stand with R 200 clamp</p> <p><b>Technical Data</b> Speed range [1/min] 8000 - 30000 Speed control stepless Speed display scale Extension arm diameter [mm] 8 Extension arm length [mm] 100 Process type batch</p> <p>Power-on time ON [min] 10 Power-on time OFF [min] 5 Dimensions (W x H x D) [mm] 46 x 201 x 57 Weight [kg] 0.4 Protection class according to DIN EN 60529 IP 30</p> <p>Voltage [V] 230 / 115 / 100 Frequency [Hz] 50/60 Power input [W] 125</p>	01
21	Microwave oven for lab	<p>Locals 8 cft Dawlance or Equivalent</p>	01

(Annexure-2) Zoology Lab Equipment			
S. No	Name of equipment	Specifications	Qty
1	Agarose gel electrophoresis apparatus with power Supply	<p>Single-Plate Mini-Gel Electrophoresis Unit</p> <p>Complete System with following accessories</p> <ul style="list-style-type: none"> <li>• Single-plate mini-gel unit with GRM and integral lower buffer chamber, lid,</li> </ul>	1

		<ul style="list-style-type: none"> <li>• 2 x (10 x 10cm; W x H) plain glass plates</li> <li>• 2 x 1mm spacers, 2 x spacer aligners,</li> <li>• 2 x (10 x 10cm) notched glass plates and</li> <li>• 1 x 1mm thick 12-sample comb</li> </ul> <p><b>Recommended Power Supply</b> 400 Volt, 300 mAmps, 50 Watt for 230Vac mains supply</p> <p><b>Gradient Thermal Cycler</b></p> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>• Capacity: 96x0.2ml</li> <li>• Temp range: 0°C to 99°C (RT≤30°C)</li> <li>• Heating rate:≥3.0°C /s</li> <li>• Cooling rate: ≥2.8°C /s</li> <li>• Uniformity: ±0.4°C (95°C), ±0.2°C (20°C to75°C)</li> <li>• Accuracy: ±0.2°C</li> <li>• Gradient temp range:30°C to 99°C</li> <li>• Gradient spread: 2°C - 30°C</li> <li>• Heated lid temp: 70°C to 115°C</li> <li>• Stored program no:100</li> <li>• Max No of Cycle: 99</li> <li>• Graphical representation: 5.7inch, 320x240pels LCM</li> <li>• Communication: USB2.0</li> <li>• A: 96 x 0.2</li> <li>• Size: 380mm x 270mmx250mm</li> <li>• Weight: 7.2k</li> </ul>	
2	Analytical Balance (0.0001-200) gm	<p><b>Top-loading Balances</b></p> <p><b>Specification</b> Capacity:320g Minimum display:0.001g Linearity: ±0.002g Operating Ambient Temperature: 5-40°C Temperature Coefficient Sensitivity (ppm/C): ±3 Weight (kg) approx.: 3.8kg Power requirement: AC adaptor ( DC12V, 1A</p>	1

3	Autoclave with gas and electric supply (Large Size)	<p><b>Digital Autoclave Vertical</b></p> <ul style="list-style-type: none"> <li>• The grounded circuit prevents a short circuit and over current.</li> <li>• Accurate temperature controls by the Digital PID controller.</li> <li>• After setting the temperature and time, just press “the start” button, then the automatic process occurs.</li> <li>• Easy to use door handle and internal material is powder coated stainless for extra durability.</li> <li>• Stable standing by use of the parking casters.</li> <li>• For user’s safety, auto and manual safety valve installation.</li> <li>• Temperature range: 125°C</li> <li>• Accuracy: ±5°C</li> <li>• Pressure: 1.2kg / cm<sup>2</sup></li> <li>• Timer: 99minutes or infinity</li> <li>• Baskets: 2 wire mesh type baskets</li> <li>• Pt 100 sensor</li> <li>• Capacity: 60 Litters</li> <li>• Internal material: Powder coated steel</li> <li>• Power: 2300 watts</li> </ul>	2																																								
4	Camera nued microscope Adjustable stage, with LCD and objectives	<p><b>Research Biological Trinocular Microscope</b></p> <p>Head: They are available in binocular and in trinocular version suitable for photography/video applications. Heads is 360° rotatable and 30° inclined. Illuminator: The illuminating system consists of a white LED illuminator. Condenser: 1.25 N.A. Abbe type, with centring system <b>Eyepiece:</b> Wide Field 10X / 20 mm Objectives: Achromatic: 4x, 10x, 40x, 100x (oil immersion) Camera Specifications</p> <table border="0"> <tr> <td>Product Category</td> <td>Digital Video Camera</td> </tr> <tr> <td>Image Sensor</td> <td>7.0 MP 1/2.5” CCD Sensor (max. 12MP by interpolation)</td> </tr> <tr> <td>Lens</td> <td>F 3.0p-5.0 (f7.0mm)</td> </tr> <tr> <td>Focus range Macro:</td> <td>10xm; Normal: 150cm-infinite Auto focus, continuous AF</td> </tr> <tr> <td>Face detection AF</td> <td></td> </tr> <tr> <td>LCD Monitor</td> <td>3” TFT LCD 300 degree rotation</td> </tr> <tr> <td>Zoom</td> <td>3X Optical Zoom + 5X Digital Zoom</td> </tr> <tr> <td>Shutter Type</td> <td>Mechanical and Electronic Normal: 2 sec – 1/1500sec.</td> </tr> <tr> <td>Night Scene:</td> <td>8 sec – 1/1500sec</td> </tr> <tr> <td>Storage Media</td> <td>Build-in 32MB Memory; SD/MMC Card Slot</td> </tr> <tr> <td>Support up to 4GB</td> <td></td> </tr> <tr> <td>Operation Modes</td> <td>Movie record, still picture, music player, voice recorder, card reader</td> </tr> <tr> <td>Image resolution</td> <td>High: 12MP (4000x3000); Standard: 7MP (3096x2328); Low: 1MP (1280x980)</td> </tr> <tr> <td>Movie resolution</td> <td>D1: 720x480, VGA : 640x480, QVGA : 320x240, 30fps</td> </tr> <tr> <td>Self-Timer</td> <td>10 / 2 second delay doubled with LED indicator</td> </tr> <tr> <td>Flash</td> <td>Auto / Auto &amp; Red – Eye reduction / Fill-in / Slow</td> </tr> <tr> <td>Sync / Off</td> <td></td> </tr> <tr> <td>ISO: Auto, 100, 200, 400, 800, 1000</td> <td></td> </tr> <tr> <td>File format</td> <td>JPEG (DCF), EXIF 2.2, DROF 1.1 PictBridge1.0, AVI (MPEG-4, Xvid) with DOCM Audio, WAV</td> </tr> <tr> <td>Battery type</td> <td>NP60 900mAH Li-ion Rechargeable Battery</td> </tr> </table>	Product Category	Digital Video Camera	Image Sensor	7.0 MP 1/2.5” CCD Sensor (max. 12MP by interpolation)	Lens	F 3.0p-5.0 (f7.0mm)	Focus range Macro:	10xm; Normal: 150cm-infinite Auto focus, continuous AF	Face detection AF		LCD Monitor	3” TFT LCD 300 degree rotation	Zoom	3X Optical Zoom + 5X Digital Zoom	Shutter Type	Mechanical and Electronic Normal: 2 sec – 1/1500sec.	Night Scene:	8 sec – 1/1500sec	Storage Media	Build-in 32MB Memory; SD/MMC Card Slot	Support up to 4GB		Operation Modes	Movie record, still picture, music player, voice recorder, card reader	Image resolution	High: 12MP (4000x3000); Standard: 7MP (3096x2328); Low: 1MP (1280x980)	Movie resolution	D1: 720x480, VGA : 640x480, QVGA : 320x240, 30fps	Self-Timer	10 / 2 second delay doubled with LED indicator	Flash	Auto / Auto & Red – Eye reduction / Fill-in / Slow	Sync / Off		ISO: Auto, 100, 200, 400, 800, 1000		File format	JPEG (DCF), EXIF 2.2, DROF 1.1 PictBridge1.0, AVI (MPEG-4, Xvid) with DOCM Audio, WAV	Battery type	NP60 900mAH Li-ion Rechargeable Battery	1
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5	Centrifuge (upto 10000 RPM)	<p><b>High Speed Micro centrifuge</b></p> <p><b>Features</b>  Acceleration rates: 10  Program memory: 10 minutes  Pulse (short run) to 90 seconds</p> <p>Deceleration rates: 10  Timer: 0-99  Run in speed or Rcf</p> <p><b>Standard features</b></p> <ul style="list-style-type: none"> <li>• Stainless steel bowl</li> <li>• Alloy and steel main frame with composite panels</li> <li>• World brand leading industrial grade inverter</li> <li>• High quality European brushless motor</li> </ul> <p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>• Cleanliness &amp; Rust Free</li> <li>• Strong Light &amp; Quiet</li> <li>• Reliability &amp; Accuracy</li> <li>• Quiet, Cool &amp; Reliable</li> </ul> <p><b>Safety features</b></p> <ul style="list-style-type: none"> <li>• Multi-point lid locking system containment, Imbalance vibration detector with auto reset</li> <li>• Lid lock detector. Over speed sensor, Set inverter values, Barrier ring</li> <li>• Motor overheat sensor, Best Safety for Lid, Easy “eye” volume loading</li> <li>• Unable to run with an open lid, Safe detection of speed</li> <li>• Electronic safety of speed, Metal protection of chamber, Motor protection</li> </ul> <p>Speed 500-12000Rpm</p>	1
6	Deep Freezer	Vertical Freezer Kenwood Size: 12Cft	1
7	Digital Balance (0.01-1000gm)	<p><b>Top-loading Balances</b></p> <p><b>Specification</b>  Capacity:320g  Minimum display:0.001g  Linearity: ±0.002g  Operating Ambient Temperature: 5-40°C  Temperature Coefficient Sensitivity (ppm/C): ±3  Weight (kg) approx.: 3.8kg  Power requirement: AC adaptor (DC12V, 1A)</p>	2
8	Filtration Unit with vacuum pump	<p><b>Vacuum Filtration Assembly</b></p> <p><b>Lab Glass</b>  With a choice of 47mm or 90mm microfiltration glassware, consisting of an All-glass filter apparatus with a 40/35 glass joint connecting the filter Support base to the filter flask. The components of FILTERWARE 47mm microfiltration glassware are Interchangeable with the corresponding components of 47mm filtration Glassware, and can be used with filtering manifolds. Analysis of Particulate or Bacterial Contamination General Laboratory Microfiltration</p> <p><b>Oil Free Vacuum Pump</b></p>	1
9	Fluorescent Microscope	<p><b>Epi-Fluorescence Microscope</b></p> <p><b>Technical specifications</b>  <b>Head:</b> Trinocular, 30° inclined, 360° rotating. Diopter adjustment; interpupillary distance adjustment 55-75 mm.</p>	

		<p><b>Eyepieces:</b> Wide Field WF10x/18 mm.</p> <p><b>Nosepiece:</b> 5-position reversed revolving nosepiece. Ball bearing linear guides.</p> <p><b>Objectives:</b> FLUOR Plan-achromatic 4x/0.1, 10x/0.25, 40x/0.65 (spring loaded) and 100x/1.25 (spring loaded, oil imm.).</p> <p><b>Specimen stage</b> 140x132 mm 2-layer mechanical stage. X-Y travel motion: 75x55 mm with two graduated scales (0.1 mm division). Sample clip for two specimens. Coaxial controls on the right side.</p> <p><b>Focusing system</b> Rack and pinion mechanism, with coaxial coarse and fine control knobs. Fine adjustment graduation 0.002 mm. Vertical movement range: 20 mm. Tension control on right side; upper stage drive stop on left side.</p> <p><b>Standard Filters</b></p> <table border="1"> <thead> <tr> <th>Name</th> <th>Excitation wavelength (nm)</th> <th>Dichroic mirror cutoff (nm)</th> <th>Barrier filter cutoff (nm)</th> </tr> </thead> <tbody> <tr> <td>B (Blue)</td> <td>450 – 480</td> <td>500</td> <td>515</td> </tr> <tr> <td>G (Green)</td> <td>510 – 550</td> <td>570</td> <td>590</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Excitation wavelength (nm)	Dichroic mirror cutoff (nm)	Barrier filter cutoff (nm)	B (Blue)	450 – 480	500	515	G (Green)	510 – 550	570	590													
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10	Homogenizer	<p><b>Tissue Homogenizer</b></p> <p><b>Technical Data</b> Speed range [1/min] 8000 - 30000 Speed control stepless Speed display scale Extension arm diameter [mm] 8 Extension arm length [mm] 100 Process type batch Power-on time ON [min] 10 Power-on time OFF [min] 5 Dimensions (W x H x D) [mm] 46 x 201 x 57 Weight [kg] 0.4 Protection class according to DIN EN 60529 IP 30 Voltage [V] 230 / 115 / 100 Frequency [Hz] 50/60 Power input [W] 125</p>	1																								
11	Incubator (double door, large size) CO2 incubator with 1. CO2 Cylinder 2. CO2 regulator	<p><b>CO2 Incubator</b></p> <table> <tr> <td>Chamber Volume</td> <td>5.5 cu ft (155 liters)</td> </tr> <tr> <td>Temperature Range</td> <td>Ambient+5°C ~52°C Ambient +40°F ~125.6°F</td> </tr> <tr> <td>Temperature Resolution</td> <td>0.1</td> </tr> <tr> <td>Temperature Fluctuation</td> <td>0.1°C</td> </tr> <tr> <td>Temperature Gradient</td> <td>≤ ±0.5°C</td> </tr> <tr> <td>Temperature uniformity(@37°C )</td> <td>±0.3°C</td> </tr> <tr> <td>Recovery to ...</td> <td>&lt; 8min</td> </tr> <tr> <td>CO2 Range</td> <td>(0~20) % V/V</td> </tr> <tr> <td>CO2 Control Resolution</td> <td>0.001</td> </tr> <tr> <td>Recovery CO2 at 5% Concentration</td> <td>≤±0.3%V/V</td> </tr> <tr> <td>Humidity Method</td> <td>Natural vaporization &gt; 95%</td> </tr> <tr> <td>HEPA</td> <td>Level 100(In 5 minutes)</td> </tr> </table>	Chamber Volume	5.5 cu ft (155 liters)	Temperature Range	Ambient+5°C ~52°C Ambient +40°F ~125.6°F	Temperature Resolution	0.1	Temperature Fluctuation	0.1°C	Temperature Gradient	≤ ±0.5°C	Temperature uniformity(@37°C )	±0.3°C	Recovery to ...	< 8min	CO2 Range	(0~20) % V/V	CO2 Control Resolution	0.001	Recovery CO2 at 5% Concentration	≤±0.3%V/V	Humidity Method	Natural vaporization > 95%	HEPA	Level 100(In 5 minutes)	2
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		<p>pH Electrode HI 1131B, glass-body, double junction, refillable,  BNC connector, 1 m (3.3') cable (included)  Temperature Probe HI 7669/2W with 1 m (3.3') cable (included)  Input Impedance 10<sup>12</sup> Ohm  Power Supply 12 Vdc adapter (included)  Environment 0 to 50°C (32 to 122°F); RH max 95%  Dimensions 240 x 182 x 74 mm (9.4 x 7.2 x 2.9")  Weight 1.1 kg (2.4 lb.)</p>	
19	Refrigerator	<p><b>Laboratory Refrigerator</b></p> <p>Total Capacity: 968 liters  Temperature Range: 0°C to 8°C  Number of shelves: 4  Doors: 2  Evaporator: Aluminum copper fins  Motor: 2x10 watts  Condenser: Copper / aluminum fins / Bundy tube  Condenser Motor: 10 watts  R-134a  Voltage supply: 220-240V 50HZ</p>	1
20	SDS-PAGE along with power supply	<p><b>Twin-Plate Mini-Gel Electrophoresis</b></p> <ul style="list-style-type: none"> <li>• Unit Dimensions (W x D x H) 20 x 15 x 14cm</li> <li>• Inner Tank Dimensions (W x D x H) 16.5 x 11 x 11.5cm</li> <li>• Plate Dimensions (W x H x T) 10 x 10 x 0.2cm</li> <li>• Standard Spacer Dimensions (W x H x T) 1 x 10 x 0.1cm</li> <li>• Active Gel Dimensions (W x H) 8 x 8.5cm</li> <li>• Maximum Sample Capacity 2 x 20</li> </ul> <p><b>Recommended Power Supply</b>  400 Volts, 300 mAmps, 50 Watts</p>	
21	Visible Spectrophotometer	<p><b>Spectro UV-VIS Double Beam PC</b></p> <p>Features</p> <ul style="list-style-type: none"> <li>○ Photometric Measurement: Measuring transmittance or absorbance at the current wavelength together with K factor calculations.</li> <li>○ Spectrum Scan: Carrying out scanning of transmittance or absorbance on the selected wavelength range together with peak-pick module.</li> <li>○ <b>Quantitative Determination:</b> Regression of standard curves and direct determination concentration of samples.</li> </ul> <p><b>Standard Accessories</b></p> <ul style="list-style-type: none"> <li>○ 2 Auto Cell Holder. 4 Optical Glass Cells 10mm.</li> <li>○ 2 Quartz Cells 10mm. 1 Dust cover</li> <li>○ 1 Instruction manual 1 Power cable</li> <li>○ 1 PC cable 1 Software CD for Windows 98/2000/XP</li> <li>○ 1 Software Operation Manual 1 Spare Tungsten Halogen Lamp</li> <li>○ 1 Block Light Cell 1 Extra fuse</li> </ul>	1
22	UV-I Illuminator	<p><b>UV Transilluminator</b></p> <p><u>Specification</u>  Light UV filter protect user from UV light.</p>	1

		<p>High light power UV tube, <math>\geq 800\mu\text{W}/\text{cm}^2</math>.  312nm UV light wave length.  Electronic starter, no flash when turn on the light that lengthens UV tube's service life.  Filter size: 200 x 200 mm.  Air cooling fan: which prevents overheating.  8 W tube x 6.  Compact dimension: 373 mm×280 mm×285 mm.</p>										
23	<p>Fume Hood  or  Biosafety cabinet  Category II</p>	<p><b>Biological Safety Cabinet, Class II  Type A2, BSC-IIA2 Series</b></p> <p>Specifications</p> <table border="1" data-bbox="454 660 1292 1948"> <tr> <td data-bbox="454 660 694 1142">Model</td> <td data-bbox="694 660 1013 1142">BSC-IIA2-3F</td> <td data-bbox="1013 660 1292 1142">BSC-IIA2-4F</td> </tr> <tr> <td data-bbox="454 1142 694 1321">Air circulation mode</td> <td colspan="2" data-bbox="694 1142 1292 1321">30% exhausted &amp; 70% re-circulated</td> </tr> <tr> <td data-bbox="454 1321 694 1948">External Dimension (W x D x H)</td> <td data-bbox="694 1321 1013 1948">1080×790×2150mm</td> <td data-bbox="1013 1321 1292 1948">1382×790×2150mm</td> </tr> </table>	Model	BSC-IIA2-3F	BSC-IIA2-4F	Air circulation mode	30% exhausted & 70% re-circulated		External Dimension (W x D x H)	1080×790×2150mm	1382×790×2150mm	1
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Air circulation mode	30% exhausted & 70% re-circulated											
External Dimension (W x D x H)	1080×790×2150mm	1382×790×2150mm										

Gross Internal Dimension (W x D x H)	915×600×680mm	1220×600×680mm	1360×600×680mm	1380×680mm
Airflow Velocity	Inflow	0.56m/s (>0.55m/s)		
	Downflow	0.30m/s (0.25~0.55m/s)		
Airflow Exhaust Volume	370 m <sup>3</sup> /h	490 m <sup>3</sup> /h	550 m <sup>3</sup> /h	725 m <sup>3</sup> /h
Filter Efficiency (%)	> 99.995% at 0.3 micron, H14 as per EN 1822 EU			
Cleanliness class	ISO3			
Sound Emission	≤ 62dB(A)			
Fluorescent Lamp Intensity	≥ 1000Lux			



		<p>Equipped with UNIBLOC one-piece aluminum mass sensor for highly stable measurements and mechanical shock resistance.</p> <ul style="list-style-type: none"> <li>• Equipped with revolutionary new feature that allows quickly and easily adjusting display stability and speed during operation</li> <li>• Equipped with dedicated 5-way menu operation key for improved operability.</li> <li>• Equipped standard with extra large glass wind shield.</li> </ul>																																											
2	Calorimeter digital	<p>NR20XE Precision Colorimeter</p> <p><b>Product Advantages</b></p> <ol style="list-style-type: none"> <li>1. 20mm measuring aperture can test objects with surface stripe accurately.</li> <li>2. Vertical structure can test wet surface object or can be soaked into the liquid for testing.</li> <li>3. Double Locating: Illuminating locating and cross locating.</li> <li>4. Adopting new optical path and dynamic integration time can test more stable and accurate.</li> <li>5. 45°/0° optical geometry structure, considering the effects of surface features.</li> <li>6. Annular illumination design, suitable for polarizing material.</li> <li>7. Equipped with rechargeable high-capacity Li-ion battery. No need to purchase battery repeatedly.</li> <li>8. Configuring CQCS3 software -- connect PC computer to realize more functions.</li> </ol> <p><b>Technical Specifications</b></p> <table border="0"> <tr> <td>3nh</td> <td>NR20XE Precision Colorimeter</td> </tr> <tr> <td>Illuminating/Viewing Geometry</td> <td>45°/0°</td> </tr> <tr> <td>Measuring Aperture</td> <td>Φ20mm</td> </tr> <tr> <td>Special Function</td> <td>Especially suitable for testing surface stripe and wet products</td> </tr> <tr> <td>Locating</td> <td>Illumination Locating/Cross Locating</td> </tr> <tr> <td>Detector</td> <td>Silicon photoelectric diode</td> </tr> <tr> <td>Locating</td> <td>Illuminating Locating/Cross Locating</td> </tr> <tr> <td>Color Space</td> <td>CIE L*a*b*C*h*; CIE L*a*b*; CIEXYZ</td> </tr> <tr> <td>Color Difference Formula</td> <td><math>\Delta E^*ab</math>; <math>\Delta L^*a^*b^*</math>; <math>\Delta E^*C^*h^*</math></td> </tr> <tr> <td>Light Source</td> <td>D65</td> </tr> <tr> <td>Light Source Device</td> <td>LED blue light excitation</td> </tr> <tr> <td>Errors Between Each Equipment</td> <td><math>\leq 0.50 \Delta E^*ab</math></td> </tr> <tr> <td>Storage</td> <td>100pcs standards 20000pcs samples Standard deviation within <math>\Delta E^*ab</math></td> </tr> <tr> <td>Repeatability</td> <td>0.08 Average of 30 measurements of standard white plate</td> </tr> <tr> <td>Weight</td> <td>500g</td> </tr> <tr> <td>Dimension</td> <td>205×67×80 mm</td> </tr> <tr> <td>Power source</td> <td>Rechargeable lithium-ion battery 3.7V@3200mAh</td> </tr> <tr> <td>Lamp Life</td> <td>5 years, more than 1.6 million measurements</td> </tr> <tr> <td>Charging Time</td> <td>First charging time is 8 hours--100% electricity</td> </tr> <tr> <td>PC Software</td> <td>CQCS3 Software</td> </tr> <tr> <td>Printer (optional)</td> <td>Miniature thermal printer</td> </tr> </table>	3nh	NR20XE Precision Colorimeter	Illuminating/Viewing Geometry	45°/0°	Measuring Aperture	Φ20mm	Special Function	Especially suitable for testing surface stripe and wet products	Locating	Illumination Locating/Cross Locating	Detector	Silicon photoelectric diode	Locating	Illuminating Locating/Cross Locating	Color Space	CIE L*a*b*C*h*; CIE L*a*b*; CIEXYZ	Color Difference Formula	$\Delta E^*ab$ ; $\Delta L^*a^*b^*$ ; $\Delta E^*C^*h^*$	Light Source	D65	Light Source Device	LED blue light excitation	Errors Between Each Equipment	$\leq 0.50 \Delta E^*ab$	Storage	100pcs standards 20000pcs samples Standard deviation within $\Delta E^*ab$	Repeatability	0.08 Average of 30 measurements of standard white plate	Weight	500g	Dimension	205×67×80 mm	Power source	Rechargeable lithium-ion battery 3.7V@3200mAh	Lamp Life	5 years, more than 1.6 million measurements	Charging Time	First charging time is 8 hours--100% electricity	PC Software	CQCS3 Software	Printer (optional)	Miniature thermal printer	1
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3	Conductivity meter	<p><b>Portable Low Range EC/TDS Meter</b></p> <p>Temperature Range -5.0 to 105.0 °C / 23.0 to 221.0 °F</p> <p>Temperature Resolution 0.1 °C / 0.1 °F</p> <p>Temperature Accuracy (@25°C/77°F) ±0.5 °C / ±1.0 °F</p> <p>EC Range 0 to 3999 µS/ cm*</p> <p>EC Resolution 1 µS/cm</p> <p>EC Accuracy (@25°C/77°F) ±2% F.S. (EC/TDS)</p> <p>EC Calibration Automatic, one-point at 1413 µS/cm</p> <p>TDS Range 0 to 2000 ppm</p> <p>TDS Resolution 1 ppm (mg/L)</p> <p>TDS Accuracy (@25°C/77°F) ±2% F.S. (EC/TDS)</p> <p>TDS Conversion Factor Selectable from 0.45 to 1.00 with 0.01 increments</p> <p>TDS Calibration Automatic, at one-point at 1382 ppm (CONV=0.5) or 1500 ppm (CONV=0.7)</p> <p>Temperature Compensation Automatic, with β selectable from 0.0 to 2.4 %/ °C with 0.1 increments</p> <p>Power Supply 1.5V AAA batteries (3 pcs.)</p> <p>Power Consumption approx. 500 hours of continuous use</p> <p>Environment 0 to 50 °C (32 to 122 °F) RH max. 100%</p>	1
4	Desiccator	<p><b>Desiccator</b></p> <p>pkg of 1 ea</p> <p>manufacture Bel-Art F42011-0000</p> <p>inside H 13.5 cm (5 1/4 in.) , with shelf</p> <p>inside dimensions 24.8 cm (9 3/4 in.) × 35.6 cm (14 in.) × 19.7 cm (7 3/4 in.)</p> <p>outside dimensions 25.4 cm (10 in.) × 38.1 cm (15 in.) × 21.6 cm (8 1/2 in.)</p>	2
5	Distillation Plant	<p><b>Water Distillation System with Reservoir</b></p> <p>Fully Automatic auto start stop, auto switch off heater in case of no feed of water. Water still produces and reserves distilled water automatically, with its fine and jumbo size reservoir, this unit offers exceptional valve for the user.</p> <p>It is very easy and safe to operate with indicator such as reservoir full indicator, distillation indicator, and with safety devices such as over temperature protector, water float level sensor and water supply cut off.</p> <ul style="list-style-type: none"> <li>▪ Capacity; 4Litter per hour</li> <li>▪ Reservoir: 30 lit stain less steel tank</li> <li>▪ Heater: 3.0Kw</li> </ul>	1

		<ul style="list-style-type: none"> <li>▪ Pipe pin heater</li> <li>▪ 12Liter boiling tank</li> </ul> <p>Dimensions:</p> <ul style="list-style-type: none"> <li>- Distiller; 205 x 205 x 300mm</li> <li>- Reservoir: 275 x 275 x 400mm</li> </ul>	
6	Flame Photometer	<p><b>PFP7 Industrial Flame Photometer</b></p> <p>Technical Specification</p> <p>Parameter PFP7</p> <p>Range 0 to 199.9ppm</p> <p>Limits of detection Na 0.2ppm</p> <p>K 0.2ppm</p> <p>Li 0.25ppm</p> <p>Ca 15ppm</p> <p>Ba 30ppm</p> <p>Reproducibility &lt;1% coefficient of variation for 20 consecutive samples using 10ppm Na set to read 50</p> <p>Linearity &lt; 2% error when 3ppm Na/K and 5ppm Li are set to read 100</p> <p>Stability &lt; 2% drift over 5min when continuously aspirating 10ppm sample set to 50.0. Specificity Interference from Na/K and Li equal in concentration to test element will be &lt;0.5%</p> <p>Recorder output Nominal 1.00V for a reading of 100.0</p> <p>Electrical supply 90-125V or 190-250V @50/60Hz</p> <p>Air supply Moisture and oil free, 6 litre/min @ 14psi</p> <p>Fuel Propane, butane, natural gas or LPG</p> <p>Size (w x d x h) 420 x 360 x 300mm</p> <p>Weight 8kg</p>	1
7	Fume hood	<p>Fume Hood</p> <p>Features:</p> <p>Micro processor control based fume hood, very strong inner material for the chemical reagent, Drain cup and port inside have a net to protect a back current, operation the hood air exhausts with storage cabinet inside, easy maintenance</p> <ul style="list-style-type: none"> <li>• 5.0 thickness tempered safety glass window, with up down slash sliding.</li> <li>• External Dimension: 1200 x 800 x 2350 (W x D x H mm)</li> <li>• Water Cock: Tip type PP, Valve 1/4" Angle, PE</li> <li>• Air Cock: Tip Type PP, Valve 1/4" Angle, PE</li> <li>• N2 Cock: Tip Type PP, Valve 1/4" Angle, PE</li> <li>• Light; 220 V Incandescent lamp, vapor proof</li> </ul>	1





8	Heating mantle with temperature regulator	<ul style="list-style-type: none"> <li>Capacity(ml):50-20000</li> <li>Heating Mode:Surface heat-conduction</li> <li>Surface Max. Temp.( °C):450°C</li> <li>Temperature control range:RT+20~250°C</li> <li>Heating element:Nichrome wire</li> </ul>	2
9	Hot Plate with magnetic stirrer	<b>Hot Plate</b>  Hot plate with manual temperature knobs <ul style="list-style-type: none"> <li>Temperature range up to 320°C</li> <li>Wattage: 650W</li> <li>Plate size (WxDxH); 210 X 220 X 120</li> <li>Power: 220VAC, 50/60Hz.</li> </ul>	3
10	Melting point apparatus	<b>Malting point Apparatus</b> Number of samples 2 Temperature range Ambient to 300°C Temperature accuracy ± 1.0°C at 20°C, ± 2.5°C at 300°C Display Four digit LED Display resolution 0.1°C Display hold facility Yes Ramp rates 20°C per minute to plateau, variable between 1 and 10°C per minute to melt Dimensions (w x d x h) 160 x 220 x 170mm Net weight 1.8 Kg Electrical supply 230V, 50Hz, 75W	2
11	Microwave oven for lab	8 cft, Dawlance	2
12	Ph meter	<b>Bench Top pH meter</b>  Range pH -2.00 to 16.00 pH Range Temperature -9.9 to 120.0°C Resolution pH 0.01 pH Resolution Temperature 0.1°C Accuracy pH ±0.01 pH Accuracy Temperature ±0.4°C pH Calibration Automatic, 1 or 2 point with 5 memorized buffer values (pH 4.01, 6.86, 7.01, 9.18, 10.01) Temperature Compensation Automatic (with HI 7669/2W probe) or manual from -9.9 to 120°C pH Electrode HI 1131B, glass-body, double junction, refillable, BNC connector, 1 m (3.3') cable (included) Temperature Probe HI 7669/2W with 1 m (3.3') cable (included) Input Impedance 1012 Ohm Power Supply 12 Vdc adapter (included) Environment 0 to 50°C (32 to 122°F); RH max 95%	2

		Dimensions x 2.9") Weight	240 x 182 x 74 mm (9.4 x 7.2 1.1 kg (2.4 lb.)	
13	UV lamp	UV Rods with accessories • 36 watt ultraviolet lamp. • Used in air and water treatment systems. • Long Life – 9000 hours. • Premium Quality Philips lamp		2
14	Vacuum dry pump	<b>Oil Free Vacuum Pump</b>  Features No air pollution, Maintenance Free: Rocker series pumps are driven by piston, without the need of lubricant, regular oil changes and maintenance with no oil pollution. Prote Overflow Protection: Rocker series pumps are equipped with Prote overflow protection which can prevent a large amount of liquid from being sucked into the pump Moisture Trap with -Filter Cartridge: Rocker series pumps are equipped with filter cartridge in air inlet to filter particle and moisture to prolong the life of pump. Vacuum Regulator: Rocker series pumps are equipped with vacuum regulator to adjust vacuum. Thermal Protection Device: Every motor of Rocker series pumps has a built-in thermal protection device to shut o- the pump automatically when overheated and then resume working when the temperature cools down. Applications: Vacuum Filtration; Suspended solid test Microbiological Test; Air sampling		1

• **EVALUATION CRITERIA**

Technical evaluation will be done on the basis of following parameters for eligibility of the Bidder: -

- i. NTN Certificate (If applicable).
- ii. GST Certificate (If applicable).
- iii. On Active Tax Payers List of FBR (If applicable).
- iv. Registration/ Incorporation/ Business Certificate and number of business years in Pakistan.
- v. Complete Company profile.
- vi. Minimum three (3) years' experience in supply
- vii. Bid Validity period of 90 days.
- viii. Affidavit to the effect that not blacklisted and rendered ineligible for corrupt and fraudulent practices by any Government (Federal, Provincial or Local) or a public sector organization/ Division/ Ministry.
- ix. Compliance with schedule of requirements (Yes/No)
- x. Submission of required amount of bid security.

- xi. Manufacturer's standard warranty: One (01) year warranty.
- xii. Compliance with Technical Specifications (Yes/No).
- xiii. Original Bidding Documents duly signed/ stamped.
- xiv. Bank statements of Last Six Months.
- xv. Evaluated on lot bases.

**Financial Evaluation** Financial bids of eligible and technically qualified firms will be opened before the bidder's representatives who wish to attend the tender opening.

**Note: The most advantageous bid will be awarded the contract as per PPR,2204.**

# **SECTION V**

## **BID FORM**

# **BID FORM-01**

## **Letter of Intention**

Bid Ref No. **UOBS-TO-0522-01**

Name of the Contract: \_\_\_\_\_

To: [Assistant Treasurer(P), University of Baltistan, Skardu.]

Dear Sir,

Having examined the bidding documents, we offer to supply and deliver the supplies under the above-named Contract in full conformity with the said bidding documents and at the rates/unit prices described in the price schedule provided in Bid or such other sums as may be determined in accordance with the terms and conditions of the Contract. The above amounts are in accordance with the Price Schedules attached herewith and are made part of this bid.

We undertake, if our Bid is accepted, to deliver the supplies in accordance with the delivery schedule specified in the schedule of requirements.

If our Bid is accepted, we undertake to provide a performance security/guarantee in the form, in the amounts, and within the times specified in the bidding documents.

We agree to abide by this bid, for the Bid Validity Period specified in the bidding documents and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.

Until the formal final Contract is prepared and executed between us, this bid, together with your written acceptance of the bid and your notification of award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any Bid you may receive. We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in Pakistan.

We confirm that we comply with the eligibility requirements as per the bidding documents and have duly provided bid security @ 2% of the total bid value, in the shape of pay order/demand draft/call deposit in the Name of University of Baltistan, Skardu with our Bid.

Dated this -----day of May, 2022.

Signed:

## BID FORM-02

Name of the Firm \_\_\_\_\_

Bid Reference No: **UOBS-TO/0522/01**

Documentary Evidence for Determining Eligibility of the Bidders & Evaluation of bids

<b>Required Documentation</b> (To Be Filled by the Procuring Agency)	<b>Checklist</b> (To be initialed by the Bidder against each document)	<b>Relevant Page Number in the Bid (To be filled by the Bidder)</b>	<b>Supporting Documents</b> (To be filled by the Bidder with name of the documents that are submitted to meet the requirement)
Column:1	Column:2	Column:3	Column:4
NTN Certificate			
GST Certificate			
On Active Tax Payers List of FBR			
Registration/Incorporation/Business Certificate			
Complete Company profile			
Firm's past performance i.e. Minimum three years' experience in supplying			
Affidavit to the effect that the respective bidder is not blacklisted and rendered ineligible for corrupt and fraudulent practices by any Government (Federal, Provincial or Local) or a public sector organization.			
Bid Validity period of 90 days			
Compliance with schedule of requirements			
Submission of required amount of bid security with Financial Bid			
Compliance with Technical Specifications			
Manufacturer's warranty: Minimum One year and onsite support			
Original Bidding Documents duly signed/stamped			
Current Bank Statements of last Six months			

Bidders should only initial against those requirements that they are attaching with the form. In case they do not have any document to attach the corresponding cell in column 2 should be left blank.

Bidders are required to mention the exact page number of relevant document placed in the Bid.

Bidders are advised to attach all Supporting documents with this form in the order of the requirement as mentioned in column 1.

# **BID FORM-03**

## **Firm's Past Performance.**

Name of the Firm: \_\_\_\_\_

Bid Reference **No: UOBS/TO/0422/01**

Assessment Period: (Minimum Three Years as per Evaluation Criteria)

<b>Purchaser/ Institution</b>	<b>Purchase Order No.</b>	<b>Description Of Order</b>	<b>Value of Order</b>	<b>Date of Completion</b>	<b>Purchaser's Certificate</b>

Bidders may use additional Sheets if required.  
All certificates are to be attached with this form.



# FINANCIAL BID FORM-04

## Price Schedule

User Note: This form is to be filled by the Bidder for each individual item and shall submit with Financial Bid.

Name of the Firm

:Bid Ref. **No:UOBS/TO-0522-01**

Annexure-1 Botany Lab Equipment					
S.No	Item	Brand Name	Qty	Unit Price	Amount
1	Electronic Balance (portable)		01		
2	Autoclave with electric supply (Large size)		01		
3	Centrifuge 5000 rpm		03		
4	Dissecting Microscope		01		
5	Distillation Plant		01		
6	Flame Photometer		01		
7	GPS		01		
8	Hot plate with magnetic stirrer		01		
9	Incubator		01		
10	Laminar flow cabinet		01		
11	Micropipettes 1-20 µl		02		
12	Micropipettes 20-200 µl		02		
13	Micropipettes 500-1000 µl		02		
14	Camera fitted microscope		01		
15	Ph/EC meter bench top		01		

16	Pipette controller (Motorized Pipette Filter)		02		
17	Water bath with thermostat		01		
18	Table top centrifuge		01		
19	Fume hood		01		
20	Homogenizer		01		
21	Microwave oven for lab		01		
	<b>TOTAL (Annexure-I)</b>				

**(Annexure-2) Zoology Lab Equipment**

S.No	Item	Brand Name	Qty	Unit Price	Amount
1	Agarose gel electrophoresis apparatus with power Supply				
2	Analytical Balance (0.0001-200) gm				
3	Autoclave with gas and electric supply (large Size)				
4	Camera nued microscope Adjustable stage, with LCD and objectives				
5	Centrifuge (upto 10000 RPM)				
6	Deep Freezer				
7	Digital Balance (0.01-1000gm)				
8	Filtration Unit with vacuum pump				
9	Fluorescent Microscope				
10	Homogenizer				
11	Incubator (double door, large size) CO2 incubator with 1. CO2 Cylinder				

	2. CO2 regulator				
12	Kjeldahl apparatus (Distillation Unit)				
13	Laminar air flow cabinet				
14	Micropipette 1-20 ul				
15	Micropipettes 20-200 µl				
16	Micropipettes 500-1000 µl				
17	Microwave oven for lab				
18	pH meter				
19	Refrigerator				
20w	SDS-PAGE along with power supply				
21	Visible Spectrophotometer				
22	UV-I Illuminator				
23	Fume Hood  or  Biosafety cabinet Category II				
24	Vortex				
	<b>TOTAL( Annexure-II)</b>				

<b>Annexure III © Chemistry Lab Equipment</b>
---

S.No	Item	Brand Name	Qty	Unit Price	Amount
1	Analytical Balance		2		
2	Calorimeter digital		1		
03	Conductivity Meter		1		
04	Desiccator		2		

05	Distillation Plant		1		
06	Flame Photometer		1		
07	Fume Hood		1		
08	Heating Mantle with temperature Regulator		2		
09	Hot Plate with Magnetic Stirrer		3		
10	Melting Point		2		
11	Microwave Oven For Lab		2		
12	PH Meter		2		
13	UV lamp		2		
14	Vacuum Dry Pump		1		
	<b>Total(Annexure-III)</b>				

<b>Grand Total(Annexure I,II &amp; III)</b>	
---	--

FINAL TOTAL PRICE (in words):-----

Signature:-----

Designation:-----

Date:----- Official Stamp:-----

**BID FORM-05**  
**Performance Guarantee**

To: **Assistant Treasurer (P) , University of Baltistan, Skardu.**

Whereas **[Name of Supplier]** (hereinafter called “the Supplier”) has undertaken, in pursuance of Contract No. [number] dated [date] to supply [description of the supplies (hereinafter called “the Contract”).

And whereas it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a scheduled bank for the sum of 5% of the total Contract amount as a Security for compliance with the Supplier’s performance obligations in accordance with the Contract.

And whereas we have agreed to give the Supplier a Guarantee:

Therefore, we hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of **[Amount of the Guarantee in Words and Figures]** and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limits of **[Amount of Guarantee]** as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the \_\_\_\_ day of \_\_\_\_\_ , 2022

Signature and Seal of the Guarantors/ Bank  
Address  
Date

# **BID FORM-06**

## **Contract Agreement**

### **Contract Form**

THIS AGREEMENT is made the Add Date between “**University of Baltistan Skardu**”, having its principal place of business at Main Campus, Hussainabad Skardu, (hereinafter referred to as the “UOBS” and **Add Company Name** a firm duly registered, having its head office at Address (hereinafter referred to as “Supplier”, which expression shall, where the context so permits, include its successors, legal, representatives and permitted assignees of the other part):

WHEREAS the Purchaser invited rates for \_\_\_\_ and has accepted the unit, rates and specification in bidding documents by the Supplier and shall remain valid till 30<sup>th</sup> June 2021 for the supply of items which shall be asked for through “Supply Orders”, issued from time to time, having therein the requisite items, quantities, delivery schedule & place. Nonetheless, the validity of selected rates may be further extended till finalization of next tender, if desired so, by mutual consent: -

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
  - a) The Bid Form and the Price Schedule submitted by the Bidder;
  - b) The General Conditions of Contract;
  - c) The Special Conditions of Contract;
  - d) The Purchaser’s Notification of Award;
  - e) Bid Security (provided with the Bid Form); and
  - f) Purchase Orders which shall be issued by UOBS time to time
3. In consideration of the payments to be made by the Purchaser to the Supplier as per the “Supply Order” which shall be issued time to time by the Purchaser, the Supplier hereby covenants with the Purchaser to provide the Goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Price or such other sum that may become payable according to the "Supply Order" which shall be issued from time to time and under the provisions of the contract at the times and in the manner prescribed by the Contract.
5. The earnest money will be retained by the UOBS for a period of 6 months from the date of its issuance.
6. 10% performance security in shape of CDR / deduction from payment.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

**SIGNED, SEALED and DELIVERED SIGNED, SEALED and DELIVERED**

**Signature and seal of UOBS:**

FOR AND BEHALF OF

**Signature and seal of** M/S ( Company  
Name)

FOR AND BEHALF OF

\_\_\_\_\_  
**Muhammad Younas**

**Treasurer**

\_\_\_\_\_  
**Name of Authorized Representative**

**Witness-I**

**Sign:**

**Name:**

**CNIC:**

**Address:**

**Witness-II**

**Sign:**

**Name:**

**CNIC:**

**Address:**

## **Section-VI**

### **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.

### **1. Definitions**

The Purchaser is: University of Baltistan, Skardu.

The Delivery Site is: Hussainabad, Skardu.

### **2. Inspection and Tests**

- i. After delivery of goods at the Purchaser's premises, the Purchaser shall inspect the quantity, quality, specifications of goods.
- ii. The Inspection Committee of the Inspection Committee of University of Baltistan, Skardu will carry out detailed physical examination of stocks and can reject, any item if found not according to the approved technical specifications etc. Moreover, the Supplier will also be responsible to replace the same without any further charges.

### **3. Packing**

Packing & accessories: All the items to be provided in proper company packing with brochures.

### **4. Transportation and delivery requirements**

- i. The bidder shall deliver the supplies at the destination in scratch-less condition with all the manufacturer supplied accessories.
- ii. The Supplier shall arrange such transportation of the Goods as is required to prevent their damage or deterioration during transit to their final destination and in accordance with the terms and manner prescribed in the Schedule of Requirement.
- iii. All costs associated with the transportation including loading/unloading and road taxes shall be borne by the Supplier.

### **5. Warranty**

The warranty period of the supplied goods shall be one year from date of delivery of the supplies at the purchaser's premises.

On site support services will be provided and defects will be corrected within one days.

### **6. Payments**

Payment to the successful bidder/Supplier will be made subject to:

- Satisfactory delivery, inspection, testing and configuration of items.
- Upon submission of required documents.
- On submission of invoice for payment to treasurer office UOBS, after fulfilling codal formalities.
- 100% payments will be made after successful testing and commission through cross cheque by UOBS Skardu.

### **7. Prices**

Prices shall be: Fixed.

### **8. Liquidated Damages**



Applicable rate: Penalties for delayed delivery of s shall be as under:

<b>Mode of Penalty</b>	<b>100% Quantity as Per Purchase Order</b>	<b>Total delivery period</b>
Without penalty	21 days	21 days
With penalty @ 1% per day after 21 days from date of issuance of Purchase Order up to maximum of 10% of the total Contract Price	10 days	31 days

### **9. Resolution of Disputes**

The dispute resolution mechanism to be applied shall be as follows:

In the case of any dispute concerning the interpretation and/or application of this contract shall be settled through arbitration. The Treasurer, UOBS or his nominee shall act as sole arbitrator. The decisions taken and/or award made by the sole arbitrator shall be final and binding on the parties.

# **General Conditions of Contract (GCC)**

## **1. Definitions**

In this Contract, the following terms shall be interpreted as indicated:

- (a) "The Contract" means the agreement entered into between the Purchaser (University of Baltistan, Skardu.) and Supplier, as recorded in the Agreement/ Contract signed by the Parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- (b) "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its Contractual obligations.
- (c) "The Supplies" means all those 2-Tons Floor Standing Ac, machinery and/or other material which the Supplier is required to supply to the Purchaser under the Contract.
- (d) "The Services" means those services ancillary to the supply of the goods, such as transportation of goods up to the desired destinations, insurance and any other incidental services such as installation, commissioning, provision of technical assistance, training and other such obligations of the Supplier covered under the Contract.
- (e) "GCC" means the General Conditions of Contract contained in this section.
- (f) "SCC" means Special Conditions of the Contract.
- (g) "The Purchaser" means the organization purchasing the Goods, as named in the SCC.
- (h) "The Supplier" means the individual or firm supplying the Goods and Services under this Contract.

## **2. Application**

These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract.

## **3. Standards**

The Goods supplied under this Contract against the "Purchase Order", shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods' country of origin. Such standards shall be the latest issued by the concerned institution.

## **4. 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 shall be 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.

The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in

the Contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the Purchaser

## **5. Payment**

- I. The method and conditions of payment to be made to the Supplier under this Contract shall be specified in SCC.
- II. The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and Services performed and upon fulfillment of other obligations stipulated in the Contract.
- III. Payments shall be made promptly by the Purchaser, but in no case later than sixty (30) days after submission of an invoice or claim by the Supplier.
- IV. The currency of payment is Pak. Rupees.

## **6. Prices**

Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in SCC or in the Purchaser's request for bid validity extension, as the case may be.

## **7. Contract Amendments**

No variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

## **8. Assignment**

The Supplier shall not assign, in whole or in part, its obligations to perform under this Contract.

## **9. Termination for Default**

I. The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part:

(a) if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the respective "Supply Order" which shall be issued from time to time under this Contract; or

(b) if the Supplier fails to perform any other obligation(s) under the Contract.

(c) if the Supplier, in the judgment of the Purchaser has engaged in corrupt and fraudulent practices in competing for or in executing the Contract.

For the purpose of this clause:

"corrupt and fraudulent practices" includes the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official or the supplier or contractor in the procurement process or in contract execution to the detriment of the procuring agencies; or misrepresentation of facts in order to influence a procurement process or the execution of a contract, collusive practices among bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the procuring agencies of the benefits of free

and open competition and any request for, or solicitation of anything of value by any public official in the course of the exercise of his duty.

II. In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

### **10. Force Majeure**

- I. Notwithstanding the provisions of GCC Clauses, the Supplier shall not be liable for forfeiture of its bid security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- II. For purposes of this clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- III. If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

### **11. Resolution of Disputes**

The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

### **12. Applicable Law**

The Contract shall be interpreted in accordance with the laws of the country.

### **13. Notices**

- I. Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing or by cable, telex, or facsimile and confirmed in writing to the other party's address specified in SCC.
- II. A notice shall be effective when delivered or on the notice's effective date, whichever is later.

### **14. Taxes and Duties**

Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser

Name of Bidder: -----

Designation: -----

Signature of Bidder: -----

Date: -----

Official Stamp: -----

**Assistant Treasurer (P)**  
University of Baltistan, Skardu  
(Email: [ghulam.nabi@uobs.edu.pk](mailto:ghulam.nabi@uobs.edu.pk))  
Phone: 05815-990069