Sealed Tenders on item wise rate basis are invited from the Manufacturing Firms or their Authorized Distributors, Dealers and General order Suppliers having established credentials in terms of Technical, Financial and Managerial capabilities for the supply of **Lab Equipments, for Various Departments** The Islamia University of Bahawalpur on FOR basis.

<table>
<thead>
<tr>
<th>Tender No.</th>
<th>Category</th>
<th>Estimated Cost</th>
<th>2% Bid Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Lab Equipment’s for Plant Breeding &amp; Genetics UCA&amp;ES:</td>
<td>Rs. 600,000/-</td>
<td>Rs. 12,000/-</td>
</tr>
<tr>
<td>B</td>
<td>Lab Equipment’s for Physics Department:</td>
<td>Rs. 835,200/-</td>
<td>Rs. 16,704/-</td>
</tr>
<tr>
<td>C</td>
<td>Lab Equipment’s for Botany Department:</td>
<td>Rs. 350,000/-</td>
<td>Rs. 7,000/-</td>
</tr>
</tbody>
</table>

1. Interested bidders may get the Tender Documents containing detailed specifications, terms and conditions from the Purchase Section, Account Department Abbasia Campus (Old), the Islamia University of Bahawalpur during office hours on submission of written application on letter head and a copy of CNIC or can be down loaded from the IUB website www.iub.edu.pk OR PPRA website www.ppra.punjab.gov.pk on payment of (non-refundable fee) of Rs. 1000/ (Separately for each category) through Bank challan HBL in A/C 14730000010403 or pay order in the name of the Treasurer, The Islamia University of Bahawalpur . Original receipt should be attached with Technical bid.

2. **2% Bid Security** of the estimated cost as mentioned above separately against each tender (Refundable) in the shape of CDR shall be attached with the bid, otherwise bid will be rejected.

3. The rates should be quoted on FOR basis.

4. **Single Stage – Two Envelopes** bidding procedure will be adopted as per PPRA Rules 38- 2(a). The Envelopes shall be marked as “TECHNICAL PROPOSAL” AND “FINANCIAL PROPOSAL” in legible letters. Financial Proposal of bids found technically non-responsive shall be returned un-opened.

5. Procurement shall be governed under the Punjab Procurement Rules, 2014.

6. The rates should be quoted inclusive of all taxes. Copy of paid bank challan of professional tax and copy of the bid security shall be attached with the technical proposal.

7. The Islamia University of Bahawalpur however, reserves the rights to reject all bids at any time prior to acceptance of a bid as per clause 35 of the Punjab Procurement Rules and grounds of rejection will be conveyed to the bidders upon their request.

8. Tender should reach in the Office of the Chairman (SMPC), Department of Mathematics, Baghdad-ul-Jadeed Campus The Islamia University of Bahawalpur upto 14.11.2019 by 02:00 PM. Tenders will be opened on the same day at 02:30 PM in the presence of bidders or their representatives.

9. Any bid submitted after the given time schedule shall not be accepted.

10. All taxes will be applicable as per Govt. Rules & Regulations.

11. The rates should be valid upto 90-days from the date of opening of the tender.

12. In case of closed/forced holidays, tender opening time/date will be considered as the next working day.

Chairman SMPC
The Islamia University of Bahawalpur
Baghdad-ul-Jadeed Campus, Bahawalpur.
Phone: 062-9255480
PROCUREMENT OF LAB EQUIPMENTS FOR PBG UCA&ES

TENDER-A FORM

1. Name of Firm: __________________________________________________________

2. Mailing Address: ______________________________________________________

3. Phone No: _____________________ 4. Fax No: _____________________________

5. Tender Fee Challan No. & amount________________ CDR No. & Amount________


8. Professional Tax No: __________________________________________________

<table>
<thead>
<tr>
<th>Sr. #</th>
<th>Item</th>
<th>Qty</th>
<th>Rate per Item with all taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Plant canopy Analyzer</td>
<td>01No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Digital analyzer enable to simultaneously capture wide-angle plant canopy images and estimate Leaf Area Index (LAI) and Photosynthetically active Radiation (PAR) levels from a single canopy scan. PAR sensor-arm with USB interface Probe Size: 20 × 20 mm Arm Length: 400 mm Probe and Arm Weight: 0.5kg. Should be accomplished with Self leveling digital fish-eye imaging probe. Driver software, Operational software, Operation manual, must be supplied in Deluxe Carrying case.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: All the bidders are required to mention the details of their product being offered by them in the Technical proposal and also clearly mention the name & relevant major specifications of their offered product while quoting the financial bid as well. Mere reproduction of our tender documents will not serve the purpose and the bid may be liable to be rejected by the procuring agency in such cases.

Terms & Conditions

1. All material supplied must be brand new strictly conforming to the given specifications. Old, reconditioned or refurbished equipment shall not be acceptable.
2. Only certified dealers/distributors of the following manufacturers are eligible: A standard company from UK, USA, Japan, Singapore, Korean and Europe etc.
3. Prices should be FOR. If the items supplied are not according to the required specification/make it will have to be replaced by the firms on their own cost.
4. Offer must be supported with comprehensive technical literature and specifications in original (English) for the materials/goods offered.
5. Validity of rate should be for 90 days from the date of opening of tenders.
6. The vendors will be responsible for any damages during Transit/Delivery. They will also be responsible for any accident and their consequent damages.

Signature: ____________________________
Name: ________________________________
Designation: __________________________
Date: _________________________________

Attachments:
Earnest Money draft (Yes/No)
Affidavit for non black listing (Yes/No)
Bid Validity (Yes/No)
Signed terms & conditions (Yes/No)

Note: Bid shall be signed by the bidder/authorized person for bidder.
PROCUREMENT OF LAB EQUIPMENTS FOR PHYSICS DEPARTMENT

TENDER-B FORM

1. Name of Firm: ______________________________________________________

2. Mailing Address: ____________________________________________________

3. Phone No: __________________ 4. Fax No: ____________________________

5. Tender Fee Challan No. & amount__________________ CDR No. & Amount________


8. Professional Tax No: ________________________________________________

<table>
<thead>
<tr>
<th>Sr. #</th>
<th>Item</th>
<th>Qty</th>
<th>Rate per Item with all taxes</th>
</tr>
</thead>
</table>
| 1     | photoelectric effect and Planck's constant
        PHYWE Experiment No. P2510402
        Equipment having accessories:
        1) Photocell with housing 06779-00
        2) Interference filters, set of 3 08461-00
        3) Interference filters, set of 2 08463-00
        4) Experimental lamp 5 11601-00
        5) Power supply 0…12 V DC / 6 V, 12 V AC 13505-93
        6) Universal measuring amplifier 13626-93 2 Digital multimeter, 3 1/2 digits 07122-00
        7) Variable resistor, 100 Ohm, 1.8 A 06114-02
        8) Connecting cable, 4 mm plug, 32 A, red, 50 cm 07361-01
        9) Connecting cable, 4 mm plug, 32 A, blue, 50 cm 07361-04
        10) Connecting cable, 4 mm plug, 32 A, yellow, 50 cm 07361-02
        11) Connecting cable, 4 mm plug, 32 A, black, 50 cm 07361-05
        12) Connecting cable, 4 mm plug, 32 A, blue, 100 cm 07363-04
        13) TESS expert CD-ROM Laboratory Experiments 16502-42 |
| 01No  | 0    | 0   | 0                           |

Note: All the bidders are required to mention the details of their product being offered by them in the Technical proposal and also clearly mention the name & relevant major specifications of their offered product while quoting the financial bid as well. Mere reproduction of our tender documents will not serve the purpose and the bid may be liable to be rejected by the procuring agency in such cases.

Terms & Conditions

1. All material supplied must be brand new strictly conforming to the given specifications. Old, reconditioned or refurbished equipment shall not be acceptable.
2. Only certified dealers/distributors of the following manufacturers are eligible: A standard company from UK, USA, Japan, Singapore, Korean and Europe etc..
3. Prices should be FOR. If the items supplied are not according to the required specification/make it will have to be replaced by the firms on their own cost.
4. Offer must be supported with comprehensive technical literature and specifications in original (English) for the materials/goods offered.
5. Validity of rate should be for 90 days from the date of opening of tenders.
6. The vendors will be responsible for any damages during Transit/Delivery. They will also be responsible for any accident and their consequent damages.

Signature: ____________________________
Name: ________________________________
Designation: _________________________
Date: ________________________________

Attachments:
Earnest Money draft (Yes/No)
Affidavit for non black listing (Yes/No)
Bid Validity (Yes/No)
Signed terms & conditions (Yes/No)

Note: Bid shall be signed by the bidder/authorized person for bidder.
**TENDER-C FORM**

1. **Name of Firm:** ________________________________________________________________
2. **Mailing Address:** ______________________________________________________________
3. **Phone No:** ____________________ 4. **Fax No:** ________________________________
5. **Tender Fee Challan No. & amount**_____________ **CDR No.& Amount**__________________
6. **General Sale Tax No:**______________________ 7. **Income Tax No:**________________________
8. **Professional Tax No:** __________________________________________________________

<table>
<thead>
<tr>
<th>Sr. #</th>
<th>Item Description</th>
<th>Qty</th>
<th>Rate per Item with all taxes</th>
</tr>
</thead>
</table>
| 1     | **Analytical Balance**  
*With External Calibration*  
**Features:**  
- Backlit LCD display  
- Colour coded keys  
- Level indicator with adjustable leveling feet  
- Removable draft shield supplied on 0.001g readabilities  
- Robust metal housing - Sealed keypad  
- Pan lifter to easily remove samples  
**Technical Specifications:**  
Maximum capacity: 250g  
Readability: 0.0001g  
Repeatability (S.D.): 0.0002g  
Pan size: 90mm Ø  
**General Specifications:**  
Typical stabilisation time: 3 Sec  
Overall dimensions (width): 8.7 x 12.2 x 12.7” / 221 x 310 x 323mm  
Net weight: 11.7lb | 01No |
| 2     | **Trinocular LED Microscope With Built-in UPS**  
**Technical Specifications:**  
**Optical System:** Antifungal Finite optical system  
**Stand:** Single mold sturdy stand with anti-rust materials. Extended base with hand rests for enhanced stability and comfort  
**Viewing Body:** Rotating trinocular tube, 45° inclined, 360° captive rotation, interpupillary distance 54-74mm  
**Eyepieces:** Wide Field focussable paired eyepieces WF 10x/18mm, with eyeguard, lockable, antifungal coatings  
**Nosepiece:** Quadruple nosepiece (ball-bearing type) with rubber grip  
**Objectives:** LP series DIN Semi-Plan Achromatic objectives, antifungal coatings  
- 4x/NA 0.10/WD 16.5mm  
- 10x/NA 0.25/WD 6.45mm  
- 40x (spring)/NA 0.65/WD 0.45mm  
- 100x (spring loaded, oil)/NA 1.25/WD 0.10mm  
**Mechanical Stage:** Rectangular stage plate size 135 x 124mm, X/Y travel range 76 x 50mm.  
Low drive co-axial movement controls. All brass gears.  
**Condenser:** Sub-stage Abbe condenser NA 1.25 with apochromatic lens. Iris diaphragm with snap-in blue filter. Rack and pinion movements on metal guides.  
**Focusing:** Feather touch attraction free coaxial coarse and fine focus adjustment with auto tension adjustment for longer life and ultra smooth movement. Weighted fine focus.  
**Illumination:** LED illumination with built-in rechargeable battery for cordless operation.  
**Electrical:** Universal input 100V-240V AC, 50/60 Hz. Packed in styrofoam box, with operation manual, allen wrench, Nylon dust cover, soft cleaning cloth, power cord, spare bulb, spare fuse and 10ml immersion oil TYPE A | 01 No |
### Benchtop pH Meter

**Main Features:**

- 6.5 inch LCD screen which is intuitive and can show more parameters. Humanized design of operating interface makes operations simpler.
- Omron long lasting and light touch panel can be used more than 100,000 times.
- Meet GLP norms, with auto calibration, auto temperature compensation, data storage, USB data export, clock, wireless printing, function setup, smart self-diagnosis and other intelligent functions.
- Built-in big memory can store 1000 sets of test data which can be saved and transferred to USB flash drive and opened with Excel, very easy and convenient for edit.
- Three different measurement modes: stable display mode, timing measurement mode and continuous measurement mode.
- Auto recognition of standard pH buffer solutions and there are three kinds of standard buffer for option: Europe & USA series, NIST series and China series.
- With standard Bluetooth block and support wireless Bluetooth printing to make operations much easier for users. Optional data transmission to PC and cell phone via wireless Bluetooth.
- Smart judge of electrode status to ensure accurate use for operators.
- IP54 waterproof and dustproof

**Specifications:**

- Display: 6.5 inch LED screen
- pH, mV, temperature
- pH Measuring range: -2.00~18.00 pH
- pH Resolution: /0.01/0.1 pH
- pH Accuracy: ±0.02 pH
- Input current: ≤2×10^-12 A
- Input impedance: ≥1×10^12Ω
- mV Measuring range: -1999.00~1999.00 mV
- mV Resolution: 1 mV
- mV Accuracy: ±0.1%FS
- Temp Measuring range: -5°C~110°C
- Temp Resolution: 0.1°C
- Temp Accuracy: ±0.5°C
- Temp Compensation: 0-100°C, automatic
- Calibration: 3 point, automatic
- GLP standard: YES
- Buffers: Europe/USA/NIST
- Auto recognition of 5 kinds of buffers
- Data storage: 300 sets
- Communication interfaces: USB2.0, RS232, wireless Bluetooth
- Working Conditions: Temperature: 5-40°C
- Humidity: 5-95%
- Power: 12V1A

**Size & Weight:** 240 × 170 × 70mm/600g

### Benchtop Conductivity Meter

**Features:**

- 6.5 inch LCD screen which is intuitive and can show more parameters. Humanized design of operating interface makes operations simpler.
- Omron long lasting and light touch panel can be used more than 100,000 times.
- Meet GLP norms, with auto calibration, auto temperature compensation, data storage, USB data export, clock, wireless printing, function setup, smart self-diagnosis and other intelligent functions.
- Built-in big memory can store 1000 sets of test data which can be saved and transferred to USB flash drive and opened with Excel, very easy and convenient for edit.
- Three different measurement modes: stable display mode, timing measurement mode and continuous measurement mode.
- Auto recognition of eight kinds of standard conductivity solution and there are two series of standard solution for option: Europe & USA series and China series.
- Adopt advanced conductivity measurement technology, one point calibration of conductivity electrode with constant K=1 can meet the measuring accuracy requirements for test 0.5μS/cm ~ 200mS/cm.
- Able to switch between conductivity, TDS, salinity and resistivity. Multinomial calculation for TDS and salinity to ensure the conversion precision of the full scale.
- With standard Bluetooth block and support wireless Bluetooth printing to make operations much easier for users. Optional data transmission to PC and cell phone via wireless Bluetooth.
- IP54 dustproof and waterproof housing

**Specifications:**

- Display: 6.5 inch LED screen
- Conductivity, Resistivity, TDS, salinity, temperature
- Conductivity measuring range: (0.00~20.00) μS/cm (20.0~200.0)μS/cm (200~2000) μS/cm (20.0~200.0) mS/cm
- Conductivity resolution: 0.01/0.1μS/cm 0.01/0.1mS/cm
- Conductivity Accuracy: Electrode: ±1.0%FS Instrument: ±1.50%FS
- Resistivity measuring range: 0 ~ 100 MΩ•cm
- TDS: 0~100 g/L
- Salinity: 0~100 ppt
- Temp measuring range: (-10~110°C)
- Temp resolution: 0.1°C
- Temp accuracy: ±0.5°C
- Data storage: 100 sets
- Communication interfaces: USB, RS232, wireless Bluetooth
- Working conditions: Temperature: 5-40°C
- Humidity: 5-95%
- Power: 12V1A

**Size & Weight:** 240 × 170 × 70mm/600g
## Water Purification System

### Technical Specifications:
- **Output**: Pure water Type II (analytical grade) according ASTMD1193 (American Society for Testing & Material)
- **Input**: Tap water
- **Production**: 1 l/min (60 liters/hour)
- **Purification process control**: By microprocessor
- **Installation requirements**: 120/220V AC + water supply (≤ 3 m. distance / ≥ 2 bar pressure)
- **Guarantee**: 12 months from installation.
- **Equipped with Kit of Cartridges**

**Purifies Tap water to Type II Analytical Grade Water, for general laboratory use.**

The equipment screen shows the conductivity of the water being dispensed (± 0.1 µS/cm).

- The electronic system has visual and audio alerts for replacement of consumables:
  - Deionization module replacement when water conductivity reaches the set point and resin cartridges need to be replaced. The set point can be preset by the user.

### SIMPLICITY OF OPERATION

- **Very easy to install.**
- **Quick and easy maintenance, no tools required.**
- **Economic**: lower cost per liter of water produced.

**The equipment is delivered calibrated from factory (QMS IS09001)**

**CE marking**: The equipment meets Low tension and Electromagnetic compatibility standards - EMC (emission and immunity)

At the request of the client, subsequent calibrations can be carried out following a calibration pattern according to international standards.

### Specifications

- **Conductivity**: < 1 µS/cm
- **Dimensions (cm)**: Equipment 45x25x40 (Height/width/Depth)
- **Weight in operation**: 8 kg
- **Feed Water Requirements**:
  - **Maximum Pressure**: 6 Bar
  - **Minimum Pressure**: 2 Bar
  - **Temperature**: 5-35 ºC

**Requirements**:
- **Electrical power**: 120/230 VAC, Plug earth grounded, within 2 meter of the Micromatic
- **Feed water**: Should be close (3 meters max), Pressure 2 bar (min), connector ½" BSP Male.

### Terms & Conditions

1. **All material supplied must be brand new strictly conforming to the given specifications. Old, reconditioned or refurbished equipment shall not be acceptable.**
2. **Only certified dealers/distributors of the following manufacturers are eligible:** A **standard company from UK, USA, Japan, Singapore, Korean and Europe etc.**
3. **Prices should be FOR. If the items supplied are not according to the required specification/make it will have to be replaced by the firms on their own cost.**
4. **Offer must be supported with comprehensive technical literature and specifications in original (English) for the materials/goods offered.**
5. **Validity of rate should be for 90 days from the date of opening of tenders.**
6. **The vendors will be responsible for any damages during Transit/Delivery. They will also be responsible for any accident and their consequent damages.**

### Signature:

_Signature: ____________________

_Name: _______________________

_Designation: __________________

_Date: _________________________

### Attachments:

- Earnest Money draft (Yes/No)
- Affidavit for non black listing (Yes/No)
- Bid Validity (Yes/No)
- Signed terms & conditions (Yes/No)

**Note**: Bid shall be signed by the bidder/authorized person for bidder.