Government College University, Faisalabad (GCUF) invites sealed tenders / bids from the well reputed firms / importers / suppliers, registered with Sales Tax and Income Tax Departments, for procurement of Lab Equipment Fermenter for the Department of Botany. Detail and Specifications of required equipments are attached in the Tender Documents.

1. Tender Documents are available for download at GCUF's website www.gcuf.edu.pk and PPRA's website www.ppra.punjab.gov.pk. The procurement shall be completed in accordance with Punjab Procurement Rules 2014, on Single Stage - Two Envelope Bidding Procedure.

2. A single package containing two envelopes, Technical and Financial separate Bids, duly completed, signed, stamped, sealed and in complete conformity with Tender Documents should reach in the office of the undersigned in the Botany Department, GCUF, not later than 1200 Hrs on 22.05.2014. Technical Bids will be opened first on 22.05.2014 at 1230 Hrs, and Financial Bids will be opened (as per schedule issued later on) for only those Successful Technical Bids which are acceptable to the "Technical Committee". Whereas, Financial Bids of unsuccessful Bidders will be returned un-opened.

3. All bids must be accompanied by Tender Fee Rs; 1,000/- and Bid Security (Refundable) at the rate of 2% of total Tender/Bid value in shape of CDRs in favor of "Treasurer GCUF". The CDRs of Tender Fee and Bid Security (in original) must be attached with Technical Bid & Financial Bid, respectively. Bids which are incomplete, not signed, not stamped, not sealed, without tender fee & bid security, late or submitted by other than specified mode will not be considered.

4. Income/Sales Tax Registration Certificate, CNIC and other documents as mentioned in the Tender Documents must accompany the bids. Taxes will be deducted as per GOP rules.

5. GCUF Management may reject any or all bids at any time prior to the acceptance of a bid, as provided under Rule-35 of Punjab Procurement Rules, 2014.

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Department of Botany, GC University
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Sealed Tenders are invited from the well reputed firms / Importers / Suppliers, which are registered with Sales Tax and Income Tax Departments for supply of Lab Equipment *Fermenter* for the Department of Botany. Detail & Specifications are separately attached as Appendix “A”.

**GENERAL TERMS & CONDITIONS**

1. **Tender Opening Date & Procedure:**
   - The procurement shall be completed in accordance with Punjab Procurement Rules 2014, on Single Stage - Two Envelope Bidding Procedure.
   - A single package containing two envelopes, Technical and Financial separate Bids in complete conformity with Tender Documents should reach in the office of the undersigned in the Botany Department, GCUF, not later than **1200 Hrs on 22.05 2014**.
   - Technical Bids will be opened first on **22.05.2014 at 1230 Hrs.** for evaluation by the "GCUF Technical Committee".
   - Financial Bids of Successful Technical Bidders will be opened as per schedule issued later on.
   - Financial Bids of unsuccessful Bidders will be returned un-opened.

2. **Tender Fee, Bid Security and Performance Security:**
   - Technical Bid must be accompanied by Tender Fee of Rs:1,000/- in shape of Call Deposit Receipt (CDR) in original and photocopy of CDR of Bid Security.
   - Financial Bid must be accompanied by Bid Security @ 2% of the tendered bid / value (refundable) in shape of Call Deposit Receipt (CDR) in original.
   - CDRs must be in favor of Treasurer, GC University, Faisalabad.
   - The rates / bids should be inclusive of all applicable Govt. Taxes.
   - Performance warrantee @10 % of the total bill shall be retained by the university and refundable after expiry of the warrantee period.

3. **Validity of Offers.**
   - Offers shall be valid for at least 180 days from the date of submission of bids.
   - Withdrawal / modification of the original offer within the validity period shall entitle the University to forfeit Bid Security.
- The Competent Authority reserves the right to increase or decrease quantities.

4. **Failures and Terminations:**

   No offer of a supplier / firm will be considered if:

   a) Bid received without Bid Security / Call Deposit or less CDR than the required.
   b) Bids received not in accordance with specifications of Tender Documents.
   c) Alternate bids received or alternative equipment offered.
   d) Bid received later than the date and time fixed for tender.
   e) Tender is incomplete in any respect or is unsigned.
   f) Offer is ambiguous and the offer is conditional.
   g) Offer from a firm which is black listed at any level.
   h) Any erasing / cutting / overwriting etc.
   i) The supplier fails to deliver the consignment within specified delivery period strictly in accordance with the terms and conditions as laid down in the Purchase Order.
   j) Situation warranted, then University is authorized to forfeit the bid Security and the firm may also be black listed.

5. **Other special condition**

   a) Bids should contain complete detail / brochure from manufacturing companies and definite information of accessories, country of origin, warranty period, after sale spare parts & service etc about quoted items.
   b) Successful bidder will be bound to provide manual, warranty document and technical support or training of quoted equipment, wherever applicable.
   c) After receipt of the items the inspection will be carried out by the end user department within 15 days.
   d) The decision of the Vice Chancellor of GC University, Faisalabad, would be final & binding on both the parties and not challengeable in any court of law.
   e) The quantities can be increased / decreased by the Competent Authority.
   f) The performance security applicable under the rules shall be deducted from the final bill of the successful bidder.
   g) All Government Taxes will be deducted according to applicable rules.
   h) The GCUF reserve the right to reject any or all bids at any time prior to the acceptance of a bid, as provided under Rule-35 of Punjab Procurement Rules, 2014.

**ISSUED TO**

M/S---------------------------------------------------------------
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(Dr. Tehreema Iftikhar)
Principal Investigator
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Allama Iqbal Road Faisalabad, Phone: 041-9201488
TENDER NOTICE NO. 1565/2/2014

DETAIL & SPECIFICATIONS OF LAB EQUIPMENT
FOR DEPARTMENT OF BOTANY.

1 – Fermenter

- Total volume: 4-5 liters total volume: Working volume 0.8 to 1.5 liters
- Double jacket glass vessel for temperature control.
- Lid: Stainless steel/ with sterile and pressure proof ports.
- 1 port for top drive 5 x 1-way connection piece, height adjustable harvest tube.
- Drive: Direct drive from top, DC motor, 90 W, 30 – 1500 rpm.
- Agitation: Mechanical seal, shaft, 2 height adjustable six – blade stirrer, removable baffle cage.
- Aeration: Autoclavable sterile filter, check valve, connection piece, aeration tube with ring sparger.
- Required air pressure approx, 1.5 bar.
- Ventilation: Reflux cooler, connection piece, autoclavable sterile filter.
- Temperature Circuit: Connected to glass double jackets, all four temperature circuits connected by central supply and drain lines.
- Probes: Autoclavable temperature probe Pt100 incl. connecting cable.
- Autoclavable pH-gel-electrode incl. connecting cable.
- Autoclavable pO2-probe incl. connecting cable.
- Autoclavable height adjustable antifoam-probe incl. connecting cable.
- Sampling System: Autoclavable sampling system.
- Inoculum: Cup for silicone diaphragm.
- Power supply: Main power supply for all electrical circuits, 1 x 230V, 50 Hz.
- Temperature Control Including heating finger and cooling water valve in temperature circuit.
- Temperature controller for heating and cooling, temperature range 4-60C (depending on the available cooling media).
- Speed Setting: DC motor with frequency converter, rpm-control unit.
- pH Control: pH-control to activate the dosage of acid and base (pumps).
- pO2 Control DDC pO2-control to activate the final elements, Cascade control vial stirrer speed and aeration valve.
- Antifoam Control: DDC antifoam - Control to activate the dosage to antifoam chemicals.

**Dosage:**

- Aeration Unit: Consists of pressure valve, a rotameter (50-500L/h) a continuous solenoid valve (proportional valve), activated by pO2 controller, a check valve.
- Automated Oxygen Control.
- Peristaltic Pump with variable speed: 1 for media feed, reversible, speed adjustable peristaltic pump including 2 meters silicone hose, hose clamp and GL45 screw cap with sterile filter.
- Suitable for pO2 cascade control.
• Peristaltic Pump with fixed speed 3 for acid, base and antifoam / harvesting fixed speed peristaltic pumps including 2 meters silicone hose and hose clamp.
• Medium formulation pump.
• IFM controller.
• 3 x 250 ml autoclavable glass bottle with sterile filter and 1 x GL 45 screw cap with sterile filter.

**Process Control:** Desktop system required with process control software: User inputs by means of cursor control, mouse click and keyboard.

**System visualization**
• Overview with current trends and graphic display of all process parameters and set points, single displayed with colored activity control of actuators.
• User profiles / security enter passwords (various levels).
• Display of two timers.
• Zoom function of process value display.
• Control and regulation algorithms for temperature, pH, O2, agitation and antifoam.
• Automated Oxygen Control with Oxygen cylinders and all fitting.
• Control profiles for controller and actuators (valves, pumps…).
• Digital 1- and / or 2-point calibration of actuators.
• Calibration of consumptions (pumps).
• Graphically programmable cascade and profile.
• Full I/O control: open / close and run / stop control of actuators.
• Limitation of controller output by definition of minimal and maximal values.
• Management of alarms, warnings and deviations.
• Overheating protection including automatic emergency cooling.
• pH recalibration after sterilization.
• Automatic filling and emptying of double jacket.
• Help Function 9German, English, French).
• Graphic display of sensor quality.
• Real-time recording of data into a Microsoft Excel format file.
• Operator defined recording interval of 1-600 sec.
• Operator defined batch name.
• Real – time recording and graphic display in an FDA compatible file format (data assorted individually).
• Display and comparison of current (live data) and historical data sets.
• Cursor selection of any point, cross reference comparison of trends.
• RALF Plus.

**Kindly quote price with the following options:**

1. Additional Flask /Vessel (must be included)
2. Additional pH and O2 probe (must be included)
3. Spectrophotometer (optional)

**Following must be included:**
1. Custom made generator which will provide 24 h backup with gas kit/ automatic switch with UPS to avoid any delay in switching on of system (Along with wiring and installation)
2. Stabilizer
3. Laminar Air Flow cabinet
4. Compressor/ Air Compressor
5. Chiller
6. Any other accessory which needs to make the unit functional (including fitting/installation/adjustment of gas and electricity connections)
7. A trolley for moving unit
8. A Base/strand

Details of Call Deposit Receipt (CDR)       Signature____________________

No_____________Amount_____________ Name of Bidder____________________

Bank______ Branch_____ City________ CNIC No ________________________

Name of the Firm & Address ________________________________Ph No____________

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