



COMSATS Institute of Information Technology
Lahore Campus, Defence Road, Off Raiwind Road, Lahore

Tender No. CIIT-TN-13-18-1023
Case # 2284

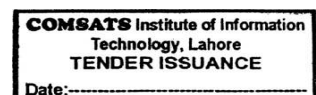
Single Stage Two Envelope Procedure

Tender Title: Lab Equipment for Dr. Muhammad Yar, Department of IRCBM, CIIT-Lahore

TERMS AND CONDITIONS

1. All pages of bidding documents are mandatory to be signed / stamped, meaning thereby bidder agrees to our terms & conditions mentioned herein, failing which the bid may be rejected.
2. Any addition, deletion or modification of any clause of the procurement terms & conditions/BoQs of CIIT by any vendor will not be acceptable and may lead to rejection of the bid.
3. Only registered Suppliers, who are on Active Taxpayers List (ATL) of FBR, are eligible to participate in tender.
4. The contract will be executed and handed over in satisfactory conditions up to the entire satisfaction of COMSATS Institute of Information Technology, Lahore Campus.
5. Documents along with Pay Order / Demand Draft amounting to **Rs. 1000/-** as a tender documents fee (Non-Refundable) shall be submitted in favor of COMSATS Institute of Information Technology, Lahore to the address given below. No bid will be accepted without tender documents' fee.
6. Part / Advance payments is not allowed.
7. The exact completion/delivery time from the date of the purchase / work order will be **40 days**. The handing over / completion time for this contract is of critical importance.
8. Your bid proposal should be inclusive of freight and all other taxes and to be delivered at COMSATS Institute of Information Technology, Lahore Campus's premises.
9. After opening of bids, COMSATS Institute of Information Technology, Lahore Campus will examine the bids for completeness as per tender document.
10. Purchase order (s) will be awarded to the lowest or technically recommended bidder (s) on the basis of item wise / subtotal wise / grand total wise according to the nature of BoQs.
11. The bid should be submitted in a sealed envelope up to **March 21, 2018** on or before **1400hrs** and will be opened on the same date **at 1430hrs** in the presence of available bidders.
12. COMSATS Institute of Information Technology, Lahore Campus, will follow the PPRA rule of **single stage two envelope procedure**:
 - i. The bid shall comprise a single package containing **two separate envelopes**. Each envelope shall contain separately the **financial proposal** and the **technical proposal**;
 - ii. The envelopes shall be marked as **“FINANCIAL PROPOSAL”** and **“TECHNICAL PROPOSAL”** in bold and legible letters to avoid confusion;

Signature & Stamp of Bidder



- iii. Initially, only the envelope marked **“TECHNICAL PROPOSAL”** shall be opened;
 - iv. The envelope marked as **“FINANCIAL PROPOSAL”** shall be retained in the custody of the procuring agency without being opened;
 - v. The procuring agency shall evaluate the technical proposal in a manner prescribed in advance, without reference to the price and reject any proposal which does not conform to the specified requirements;
 - vi. During the technical evaluation no **amendments** in the technical proposal shall be permitted;
 - vii. The financial proposals of bids shall be opened publicly at a time, date and venue announced and communicated to the bidders in advance;
 - viii. After the evaluation and approval of the technical proposal the procuring agency, shall at a time within the bid validity period, publicly open the financial proposals of the technically accepted bids only. The financial proposal of bids found technically nonresponsive shall be returned un-opened to the respective bidders;
 - ix. and
 - x. The bid found to be the lowest evaluated bid shall be accepted.
13. The envelope should be marked as under;

Secretary, Purchase Committee
COMSATS Institute of Information Technology, Lahore Campus
 Defence Road, Off Raiwind Road, Lahore.
 Tel: 042-111-001-007, Ext: 875

The envelope shall also bear the word **“CONFIDENTIAL”** and following identification quotation of **“Lab Equipment for Dr. Muhammad Yar, Department of IRCBM, CIIT-Lahore”**.

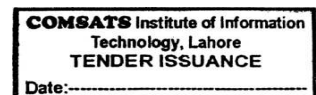
14. The bid form (BoQs) must be duly filled in, stamped and signed by the authorized representative of the bidder.
- 15. If the vendor fails to deliver the goods / services to CIIT-Lahore in time then the penalty will be charged as under:-**
- a. 1% per day of the invoice price for 5 working days.
 - b. 2% per day of the invoice price for further 5 working days.
 - c. If the vendor fails to deliver the goods / services during the extended period then the purchase / work order may be cancelled, earnest money and payment may be forfeited.
16. If the delivered goods / services are not according to the required quality standards / specifications, the same shall be liable to be rejected after inspection. The vendor would be required to supply as per requirements mentioned in our BoQs, otherwise the purchase / work order will be cancelled after due date with confiscation of earnest money.
17. Deduction of Income Tax and any other tax will be deducted at source according to Government prevailing rules.
18. Payment will be made on submission of Invoice in the name of “COMSATS Institute of Information Technology, Lahore Campus” with a copy of delivery challan (s) after the complete order has been supplied,

Signature & Stamp of Bidder

inspected and accepted which includes delivery / installation, and COMSATS acceptance / inspection thereof.

- 19. All prices should be quoted on F.O.R (Pak Rupees).
- 20. All prices should be valid for at least **90 days**. Withdrawal or any modification of the original offer within the validity period shall entitle CIIT to forfeit the earnest money in favor of the CIIT and / or put a ban on such vendor participation in CIIT tenders / works.
- 21. It is the sole responsibility of the agent / supplier / manufacturer to comply with the applicable laws, be national or international.
- 22. In case of any dispute or grievance, the matter shall be addressed as per PPRA rules.
- 23. The CIIT reserves the right to modify the quantities of goods / services at any time before the award of purchase / work order.
- 24. **05% of the total value of the will be retained as security by COMSATS Institute of Information Technology, Lahore Campus, and will be released after Expiry of Warranty Period i.e. One Year against Sr. # 1-17, which will be counted from the date of delivery / completion of work / supply.**
- 25. **The bidder is required to furnish in form of Bank deposit/ CDR / Pay order equivalent to 2% of the total Bid price as Earnest Money crossed in favor of “COMSATS Institute of Information Technology, Lahore Campus”. Any bid not accompanied by Earnest Money shall be rejected without any right of appeal.**
- 26. COMSATS Institute of Information Technology, Lahore Campus reserves the rights to accept or reject the bid if;
 - i. Received without earnest money
 - ii. Received later than the date and time fixed for tender submission
 - iii. The tender is unsigned/ unstamped
 - iv. The offer is ambiguous
 - v. The offer is conditional
 - vi. The offer is from a firm, which is black listed by any Govt. Office.
 - vii. The offer is received by telephone/telex/fax/telegram.
 - viii. Any unsigned / ambiguous erasing, cutting / overwriting etc. is made.
- 27. The bidder should furnish a certificate as worded below in token of acceptance of all the terms and conditions of the tender otherwise the tender will not be considered under any circumstances.
- 28. The undersigned affirm that the terms and conditions as contained in this document have been read and accepted and that in the event of selection of my/our rate the agreement in the prescribed form will be entered into:
 - **Company / Vendor Name:**.....
 - **Postal Address:**.....
 - **Tel. / Mobile:**.....**Email:**.....
 - **NTN# :**.....**GST#:**.....
 - **Signature:**

Signature & Stamp of Bidder



- Please also attach the Certificate supporting being Active Taxpayer as per requirement of FBR.

Technical Portion (Please mention the quoted model/ brand in technical portion with no mention of price otherwise the bid will be rejected)

BoQs of Lab Equipment for Dr. Muhammad Yar, Department of IRCBM, CIIT-Lahore

No change in the BoQs (Specs & Qty.) of CIIT, as detailed below, is allowed. Any additional information may be mentioned in the blank columns (i.e. model / brand or Price). Any modification in CIIT's BoQ may lead to rejection of bid (fully or partially).				Quoted Model Brand with meeting the all specifications	
Sr. #	Item Name	Specifications	Qty		
1	Chemical Reactor (stirrer,heater, Heating mantle)	<p>Large chemical reactor Diameter :14" Height: 18" Capacity:50 liters Inner part is coated with Teflon/fiber lining, on the top of the reactor there is cap with diameter of 16", it contains 4 holes two of 3" and one has 1" aperture other one has 1.5" aperture .cap is removable. Stirrer and heater can be removed from reactor to ease in the cleanness and material removal from reactor after completing the process. There is heater attached in reactor having maximum temperature of 100°C with digital display and temperature controller the material used in heater is stain less steel Other major component is Stirrer with max 1000RPM with adjustable digital system of RPM, 3 phase good quality motor. Reactor has one cone at bottom with filtration sieves of size 50 to 80 micron Cone height is 8-10" removable from main reactor, sieves can be changed according to the requirements or equivalent Warranty One Year</p>	01	No.	

Signature & Stamp of Bidder

2	Crusher /Blender /Powder Machine	Main parts are the flat teeth mounted on the rotor, round teeth can crush all kinds of raw material particles. Capacity: 10-300kg/h Voltage: 220v,110v Power: 1.5-2.2KW Rotor speed: 5000r/min Dimension: 700*490*610mm or equivalent Warranty One Year	01	No.	
3	Vacuum drying oven	Temperature range 5°C above ambient up to +200°C •fuzzy-supported MLC (Multi-Level-Controlling) microprocessor controller adapting its performance to the volume for each thermoshelf •Temperature measured through 4-wire Pt100 sensor individually for each thermoshelf •integrated timer for tempering and pressure (vacuum) profiles •Digital electronic pressure control through solenoid valves •adjustment range from 10 mbar to 1100 mbar - digital (LED) •setting accuracy 1 mbar •Rapid air intake for door opening (door is blocked under vacuum) program reactivation at stored values •vacuum drying process (vacuum cycles) is continued after power failure •Multiple Overtemperature Protection •Textured Stainless Steel Casing •hermetically welded stainless steel interior of extremely corrosion-resistant stainless steel, material 1.4404 Operated on 220volts, VO Series. Capacity 29 Lit, Interior dimension: 385 x 305 x 250 mm, Operated on 220volts, Model VO-200, Memmert, or equivalent Warranty One Year	01	No.	
4	pH meter	pH meter is required to measure pH and conductivity of different liquids. Range: -2.000~20.000pH Accuracy: ±0.002 pH Calibration Points: 1 to 5 points Temperature Compensation: 0~100°C, 32~212°F	01	No.	

		<p>mV Range: -1999.9~1999.9mV Accuracy: ± 0.2mV Resolution: 0.1, 1mV Calibration solution: 10μS/cm, 84μS/cm,1413μS/cm,12.88mS/cm,111.8 mS/cm Calibration points: 1 to 5 points Normalization Temperature: 20°C or 25°C, or equivalent Warranty One Year</p>			
5	a) Freezer	<p>Freezer is required to store the sensitive materials and freeze them. Dimension: 1230 x 880 x 775 mm Temperature: - 25 °C Capacity: 400 (L / Cu. ft.) Contemporary design: double textured door Freezer Eutectic plate: keeps items frozen for up to 24 hours during power breakdowns. or equivalent Warranty One Year</p>	01	No.	
	b) stabilizer	<p>Capacity: 10000 Watts Input : 80-260 V Output : 220V Output Precision: 220V \pm 8% Frequency: 50/60Hz Efficiency : >90% Over Voltage Protection: < 240 \pm 5V Over/Short Load Protection: < 200 \pm 5V Temperature Protection: 100° C or equivalent Warranty One Year</p>	01	No.	
6	a) Refrigerator	<p>Fridge is required to store the sensitive chemicals, light sensitive and degradable at high temperature. Dimension: 179 x 91 x 72 cm Capacity: 640 liters Freezer Eutectic plate: keeps items cooled for up to 15 hours during power breakdowns. Contemporary design: double textured door or equivalent Warranty One Year</p>	01	No.	

	b) stabilizer	Capacity: 10000 Watts Input : 80-260 V Output : 220V Output Precision: 220V ± 8% Frequency: 50/60Hz Efficiency : >90% Over Voltage Protection: < 240 ± 5V Over/Short Load Protection: < 200 ± 5V Temperature Protection: 100° C or equivalent Warranty One Year	01	No.	
7	Weighing Balance (kg scale)	High precision weighing balance is required to weigh the minimum quantity of any material etc. Weighing Range: 10g – 100kg. Weighing plate: 34 cm Units: grams and kilograms Display: digital back and front or equivalent Warranty One Year	01	No.	
8	Weighing balance	High precision weighing balance is required to weigh the minimum quantity of any chemicals etc. Weighing Range: 0.1mg – 120 g. Weighing plate: Ø 80 mm Read-out [d]. mg: 0.1 mg Reproducibility. mg: 0.1 mg Permissible Temperature: 5 – 35 °C Weight mode: g/ct Electricals Requirements: DC 9V, with AC 220V, Adapter, 60 Hz or equivalent Warranty One Year.	01	No.	
9	Water distillation assembly	All glass Borosilicate Glass fitted with metal element 3KW capacity: 4 Liter per hour, conductivity: 4 µs/cm, PH 5.5 to 6.5 or equivalent Warranty One Year	01	No.	
10	Thermosensor (Digital Thermometer)	LCD screen, easy to read. Low power consumption. High accuracy and stability. Safe and reliable. Durable in use. Convenient and easy to operate or equivalent Warranty One Year	03	Nos.	

11	Freeze dryer	<p>Freeze dryer : Pilot Freeze Dryer Drying chamber Drying area:1.0 m² Shelf quantity: 6+1 layer Shelf Temp range: -50°C ~70°C Shelf temp. difference: ±1°C (balance) Shelves size: 480*360mm Tray size: 475×355mm Tray quantity: 6 pcs Raw material loaded Capacity: 10L Height space 70mm Material of chamber& shelves: Polish SS304 Material of trays: SS304 Cold Trap Condenser temp: ≤-75°C Condenser capability: 15 Kg/24h Defrost: Electric heating Basic parameters Vacuum pump: Included Ultimate Vacuum : ≤5 Pa Pump rate: 15L/S Cooling type: Air cooled Control method: PLC auto + manual or equivalent Warranty One Year</p>	01	No.	
12	Compatible vacuum pump	<p>PTFE Diaphragm Chemistry Design two stage provides the advantageous combination of High Pumping Speed and low Ultimate Vacuum Suitable for Rotary Evaporators, all pumping parts in contact with pumped media are made of Chemically Resistant Fluoroplastics. PTFE Diaphragms increase Reliability and Extended Operation Life. MZ1C is equipped with a Gas Ballast Valve for Continuous Condensate Purge with Built in manual Vacuum Regulator Valve with Lid Gauge for Adjustment of Pumping Speed. Technical Specification Number of Head / Stages 2 Maximum Pumping Speed 0.75 m³/h/0.9 m³/h, Ultimate Vacuum 12 mbar Ultimate Vacuum with Gas Ballast 20 mbar Operated on 220 Volts Model MZ1C Vacuubrand, or equivalent Warranty One Year</p>	01	No.	

13	Oxygen detector	<p>Dissolved Oxygen (DO) Specifications DO Range: 0.00 to 45.00 ppm (mg/L), 0.0 up to 300.0% saturation DO Resolution: 0.01 ppm (mg/L); 0.1% saturation DO Accuracy: $\pm 1.5\%$ of reading ± 1 digit DO Calibration: automatic one or two point at 100% saturation (8.26 mg/L) and 0% saturation (0 mg/L) DO Temperature Compensation: ATC: 0 to 50 °C; 32.0 to 122.0 °F Salinity Compensation: 0 to 40 g/L (with 1 g/L resolution) DO Altitude Compensation: -500 to 4000 m (with 100 m resolution) Temperature Specifications Temperature Range: -20.0 to 120.0 °C, - 4.0 to 248.0 °F Temperature Resolution: 0.1 °C, 0.1 °F Temperature Accuracy: ± 0.5 °C, ± 0.9 °F °C/°F: Yes Additional Specifications Connectivity: 1 micro USB port for charging and PC connectivity, 1 USB port for storage, Battery Type/Life: Built-in rechargeable battery with up to 8 hours of continuous use, Power Supply: 5 VDC adapter (included), Dimensions: 202 x 140 x 12.7mm (8" x 5.5" x 0.5"), or equivalent Warranty: 2 years (probe 6 months)</p>	01	No.	
14	viscometer	<p>Maximum Measurement Range: $\geq 6D$ Viscometer Type: Rotary Test Density: Light Viscometer Rotor Number: 4 Viscometer Rotor Specifications: 4 Size Accuracy: $\pm 5\%$ Density Meter Type: Transmission- type Density Meter Density Meter Principle: Vibrating Density Meter Viscometer Reproducibility: $\pm 0.2\%$ Viscometer Rotor Speed: 60r/min Display type: digital display Measurement range: 10mPa·s ~ 2x10⁶ mPa·s; or equivalent Warranty One Year</p>	01	No.	

15	Desiccators	<p>Ideal for large volume vacuum storage 2.3 cubic feet capacity Polycarbonate construction is chemical resistant and easy to clean Contents can be viewed easily through clear top and bottom Capacity :65 liters With space for items up to 18" (457 mm) tall or wide User can view the contents easily Two round polypropylene shelves are included, which maximize storage capacity and can be lifted out for easy access or to accommodate awkward-size items High strength desiccator will hold a full vacuum (29" Hg) at room temperature for 24 hours and remain airtight even if not under vacuum. The included gasket, with an application of vacuum grease assures a tight seal down to 0°C. Dimensions: 22"W x 22"D x 22'H Shelves: (14.5" and 9" in diameter (368 and 228 mm) High strength desiccator will hold a full vacuum (29" Hg) at room temperature for 24 hours and remain airtight even if not under vacuum. The included gasket, with an application of vacuum grease assures a tight seal down to 0°C. or equivalent Warranty One Year</p>	01	No.	
16	Laptop with bag	<p>Laptops are required to store the data and do analysis on both laptops. Brand: HP / Dell or equivalent Memory: memory must be 500 GB built-in and 4 GB RAM Processor: 7th Generation Intel Core i5-7200U Processor, 2.5 GHz Turbo Boost. Display: 15.6 inches, 720 x 1280 pixels, maintain Bluetooth, USB, WLAN (Wi-Fi 802.11 b/g/n, GPRS, EDGE, 4G LTE. Must contain a DVD Writer Browser: HTML5 Graphics memory: Intel® HD Graphics 620 Warranty One Year</p>	01	No.	

17	printer	<p>Brand: Hp or equivalent</p> <p>Specifications</p> <p>Print speed black:Normal: Up to 25 ppm</p> <p>First page out (ready) Black: As fast as 8 sec.</p> <p>Print quality black Up to 1200 x 1200 dpi</p> <p>Duty cycle Up to 15,000 pages Monthly</p> <p>Print technology Laser</p> <p>Processor speed 750 MHz</p> <p>Display 196 x 34 pixels graphic LCD</p> <p>Connectivity, standard 1 Hi-Speed USB 2.0 1 Ethernet 10/100</p> <p>Paper handling input 250-sheet input tray, 10-sheet priority tray</p> <p>Paper handling output 150-sheet output tray</p> <p>Duplex Printing</p> <p>Manual</p> <p>Warranty One Year</p>	01	No.	
18	Vernier Caliper	LCD Digital Carbon Fiber Vernier Caliper Gauge Micrometer	01	No.	
19	Washing tanks	<p>Washing tanks with different capacities 5liters, 10 liters, 20 liters made with plastics</p> <p>Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.</p>	18	Nos.	
20	a) Iron stands	<p>Material :metallic</p> <p>Martial type :Iron</p> <p>Size :100 x 75 x 80 cm</p> <p>Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.</p>	03	Nos.	
	b) support stands	<p>Stainless steel rod (24" length)</p> <p>Blue or black powder coated support stand base (8" x 5")</p> <p>4 pronged, cork lined burette clamp</p> <p>Metal retort ring (2.5" diameter)</p> <p>Perfect setup for a lab</p> <p>Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.</p>	06	Nos.	

21	Spade	Head Material: Carbon Steel Size : Medium Handle Material: Steel Shape: Square Shovel Function: Multifunctional Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	02	Nos.	
22	Wood paddle	Handle length: 48 inches Blade length: 6 inches Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	05	Nos.	
23	cage racks	Cages trolley for mice and rat etc. Capacity of storing 100 cages Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	01	No.	
24	Animal cages	Cages for Rats. 2 feet X 1 feet cages suitable for rats 50 Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	50	Nos.	
25	Polyethylene bags	For packing purposes with different capacities Bags of 5kg= 50 bags Bags of 10kg= 50 bags Bags of 15kg= 50 bags Bags of 20kg= 50 bags Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	200	Nos.	
26	Thick sheets	Plastic sheets with thick 12x12 ft. Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	4	Nos.	
27	Electricity power cables and extensions)	Complete electricity wiring for instruments, electric wire extensions, switches, plugs for electronic instruments like a)laptop b)printers c)fridge d)freezer e)vacuum drying oven f)weighing balance g)viscometer f)desiccator	20	Nos.	

Signature & Stamp of Bidder

		h) water distillation assembly etc. Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.			
28	Trolleys to carry raw materials	Material: Stainless steel load capacity max: 300KG Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	03	Nos.	

Financial Portion (Price and Brand/Model to be mention only in Financial Proposal in a separate sealed envelope)

No change in the BoQs (Specs & Qty.) of CIIT, as detailed below, is allowed. Any additional information may be mentioned in the blank columns (i.e. model / brand or Price). Any modification in CIIT's BoQ may lead to rejection of bid (fully or partially).					Rate to be quoted Inclusive of all (applicable) Taxes		
Sr. #	Item Name	Specifications	Qty		Quoted Model / Brand / Make	Unit Price (Rs.)	Total Price (Rs.)
1	Chemical Reactor (stirrer,heater, Heating mantle)	Large chemical reactor Diameter :14" Height: 18" Capacity:50 liters Inner part is coated with Teflon/fiber lining, on the top of the reactor there is cap with diameter of 16", it contains 4 holes two of 3" and one has 1" aperture other one has 1.5" aperture .cap is removable. Stirrer and heater can be removed from reactor to ease in the cleanness and material removal from reactor after completing the process. There is heater attached in reactor having maximum temperature of 100°C with digital display and temperature controller the material used in heater is stain less steel Other major component is Stirrer with max 1000RPM with adjustable digital system of RPM, 3 phase good quality motor. Reactor has one cone at bottom with filtration sieves of size 50 to 80 micron Cone height is 8-10" removable	01	No.			

Signature & Stamp of Bidder

		from main reactor, sieves can be changed according to the requirements or equivalent Warranty One Year					
2	Crusher /Blender /Powder Machine	Main parts are the flat teeth mounted on the rotor, round teeth can crush all kinds of raw material particles. Capacity: 10-300kg/h Voltage: 220v,110v Power: 1.5-2.2KW Rotor speed: 5000r/min Dimension: 700*490*610mm or equivalent Warranty One Year	01	No.			
3	Vacuum drying oven	Temperature range 5°C above ambient up to +200°C <ul style="list-style-type: none"> •fuzzy-supported MLC (Multi-Level-Controlling) microprocessor controller adapting its performance to the volume for each thermoshelf •Temperature measured through 4-wire Pt100 sensor individually for each thermoshelf •integrated timer for tempering and pressure (vacuum) profiles •Digital electronic pressure control through solenoid valves •adjustment range from 10 mbar to 1100 mbar - digital (LED) •setting accuracy 1 mbar •Rapid air intake for door opening (door is blocked under vacuum) program reactivation at stored values •vacuum drying process (vacuum cycles) is continued after power failure •Multiple Over temperature Protection •Textured Stainless Steel Casing •hermetically welded stainless steel interior of extremely corrosion-resistant stainless steel, material 1.4404 Operated on 220volts, VO Series. Capacity 29 Lit, Interior dimension: 385 x 305 x 250 mm, Operated on 220volts, Model VO-200, Memmert, or equivalent Warranty One Year	01	No.			

Signature & Stamp of Bidder

4	pH meter	<p>pH meter is required to measure pH and conductivity of different liquids. Range: -2.000~20.000pH Accuracy: ± 0.002 pH Calibration Points: 1 to 5 points Temperature Compensation: 0~100°C, 32~212°F mV Range: -1999.9~1999.9mV Accuracy: ± 0.2mV Resolution: 0.1, 1mV Calibration solution: 10μS/cm, 84μS/cm, 1413μS/cm, 12.88mS/cm, 111.8mS/cm Calibration points: 1 to 5 points Normalization Temperature: 20°C or 25°C, or equivalent Warranty One Year</p>	01	No.			
5	a) Freezer	<p>Freezer is required to store the sensitive materials and freeze them. Dimension: 1230 x 880 x 775 mm Temperature: - 25 °C Capacity: 400 (L / Cu. ft.) Contemporary design: double textured door Freezer Eutectic plate: keeps items frozen for up to 24 hours during power breakdowns. or equivalent Warranty One Year</p>	01	No.			
	b) stabilizer	<p>Capacity: 10000 Watts Input : 80-260 V Output : 220V Output Precision: 220V \pm 8% Frequency: 50/60Hz Efficiency : >90% Over Voltage Protection: < 240 \pm 5V Over/Short Load Protection: < 200 \pm 5V Temperature Protection: 100° C or equivalent Warranty One Year</p>	01	No.			

6	a) Refrigerator	Fridge is required to store the sensitive chemicals, light sensitive and degradable at high temperature. Dimension: 179 x 91 x 72 cm Capacity: 640 liters Freezer Eutectic plate: keeps items cooled for up to 15 hours during power breakdowns. Contemporary design: double textured door or equivalent Warranty One Year	01	No.			
	b) stabilizer	Capacity: 10000 Watts Input : 80-260 V Output : 220V Output Precision: 220V ± 8% Frequency: 50/60Hz Efficiency : >90% Over Voltage Protection: < 240 ± 5V Over/Short Load Protection: < 200 ± 5V Temperature Protection: 100° C or equivalent Warranty One Year	01	No.			
7	Weighing Balance (kg scale)	High precision weighing balance is required to weigh the minimum quantity of any material etc. Weighing Range: 10g – 100kg. Weighing plate: 34 cm Units: grams and kilo grams Display: digital back and front or equivalent Warranty One Year	01	No.			
8	Weighing balance	High precision weighing balance is required to weigh the minimum quantity of any chemicals etc. Weighing Range: 0.1mg – 120 g. Weighing plate: Ø 80 mm Read-out [d]. mg: 0.1 mg Reproducibility. mg: 0.1 mg Permissible Temperature: 5 – 35 °C, Weight mode: g/ct Electricals Requirements: DC 9V, with AC 220V, Adapter, 60 Hz or equivalent Warranty One Year.	01	No.			
9	Water distillation assembly	All glass Borosilicate Glass fitted with metal element 3KW capacity: 4 Liter per hour, conductivity: 4 µs/cm, PH 5.5 to 6.5 or equivalent Warranty One Year	01	No.			

Signature & Stamp of Bidder

10	Thermosensor (Digital Thermometer)	LCD screen, easy to read. Low power consumption. High accuracy and stability. Safe and reliable. Durable in use. Convenient and easy to operate or equivalent Warranty One Year	03	Nos.			
11	Freeze dryer	Freeze dryer : Pilot Freeze Dryer Drying chamber Drying area:1.0 m2 Shelf quantity: 6+1 layer Shelf Temp range: -50°C ~70°C Shelf temp. difference: ±1°C (balance) Shelves size: 480*360mm Tray size: 475×355mm Tray quantity: 6 pcs Raw material loaded Capacity: 10L Height space 70mm Material of chamber& shelves: Polish SS304 Material of trays: SS304 Cold Trap Condenser temp: ≤-75°C Condenser capability: 15 Kg/24h Defrost: Electric heating Basic parameters Vacuum pump: Included Ultimate Vacuum : ≤5 Pa Pump rate: 15L/S Cooling type: Air cooled Control method: PLC auto + manual or equivalent Warranty One Year	01	No.			
12	Compatible vacuum pump	PTFE Diaphragm Chemistry Design two stage provides the advantageous combination of High Pumping Speed and low Ultimate Vacuum Suitable for Rotary Evaporators, all pumping parts in contact with pumped media are made of Chemically Resistant Fluor plastics. PTFE Diaphragms increase Reliability and Extended Operation Life. MZ1C is equipped with a Gas Ballast Valve for Continuous Condensate Purge with Built in manual Vacuum Regulator Valve with Lid Gauge for Adjustment of Pumping Speed. Technical Specification	01	No.			

Signature & Stamp of Bidder

		Number of Head / Stages 2 Maximum Pumping Speed 0.75 m ³ /h/0.9 m ³ /h, Ultimate Vacuum 12 mbar Ultimate Vacuum with Gas Ballast 20 mbar Operated on 220 Volts Model MZ1C Vacuubrand, or equivalent Warranty One Year					
13	Oxygen detector	Dissolved Oxygen (DO) Specifications DO Range: 0.00 to 45.00 ppm (mg/L), 0.0 up to 300.0% saturation DO Resolution: 0.01 ppm (mg/L); 0.1% saturation DO Accuracy: ±1.5% of reading ±1 digit DO Calibration: automatic one or two point at 100% saturation (8.26 mg/L) and 0% saturation (0 mg/L) DO Temperature Compensation: ATC: 0 to 50 °C; 32.0 to 122.0 °F Salinity Compensation: 0 to 40 g/L (with 1 g/L resolution) DO Altitude Compensation: -500 to 4000 m (with 100 m resolution) Temperature Specifications Temperature Range: -20.0 to 120.0 °C, -4.0 to 248.0 °F Temperature Resolution: 0.1 °C, 0.1 °F Temperature Accuracy: ±0.5 °C, ±0.9 °F °C/°F: Yes Additional Specifications Connectivity: 1 micro USB port for charging and PC connectivity, 1 USB port for storage, Battery Type/Life: Built-in rechargeable battery with up to 8 hours of continuous use, Power Supply: 5 VDC adapter (included), Dimensions: 202 x 140 x 12.7mm (8" x 5.5" x 0.5"), or equivalent Warranty: 2 years (probe 6 months)	01	No.			
14	viscometer	Maximum Measurement Range: ≥6D Viscometer Type: Rotary Test Density: Light	01	No.			

Signature & Stamp of Bidder

		<p>Viscometer Rotor Number: 4 Viscometer Rotor Specifications: 4 Size Accuracy: ± 5% Density Meter Type: Transmission-type Density Meter Density Meter Principle: Vibrating Density Meter Viscometer Reproducibility: ±0.2% Viscometer Rotor Speed: 60r/min Display type: digital display Measurement range:10mPa·s ~ 2x106 mPa·s; or equivalent Warranty One Year</p>				
15	Desiccators	<p>Ideal for large volume vacuum storage 2.3 cubic feet capacity Polycarbonate construction is chemical resistant and easy to clean Contents can be viewed easily through clear top and bottom Capacity :65 liters With space for items up to 18" (457 mm) tall or wide User can view the contents easily Two round polypropylene shelves are included, which maximize storage capacity and can be lifted out for easy access or to accommodate awkward-size items High strength desiccator will hold a full vacuum (29" Hg) at room temperature for 24 hours and remain airtight even if not under vacuum. The included gasket, with an application of vacuum grease assures a tight seal down to 0°C. Dimensions: 22"W x 22"D x 22'H Shelves: (14.5" and 9" in diameter (368 and 228 mm) High strength desiccator will hold a full vacuum (29" Hg) at room temperature for 24 hours and remain airtight even if not under vacuum. The included gasket, with an application of vacuum grease assures a tight seal down to 0°C. or equivalent Warranty One Year</p>	01	No.		

16	Laptop with bag	Laptops are required to store the data and do analysis on both laptops. Brand: HP / Dell or equivalent Memory: memory must be 500 GB built-in and 4 GB RAM Processor: 7th Generation Intel Core i5-7200U Processor, 2.5 GHz Turbo Boost. Display: 15.6 inches, 720 x 1280 pixels, maintain Bluetooth, USB, WLAN (Wi-Fi 802.11 b/g/n, GPRS, EDGE, 4G LTE). Must contain a DVD Writer Browser: HTML5 Graphics memory: Intel® HD Graphics 620 Warranty One Year	01	No.			
17	printer	Brand: Hp or equivalent Specifications Print speed black: Normal: Up to 25 ppm First page out (ready) Black: As fast as 8 sec. Print quality black Up to 1200 x 1200 dpi Duty cycle Up to 15,000 pages Monthly Print technology Laser Processor speed 750 MHz Display 196 x 34 pixels graphic LCD Connectivity, standard 1 Hi-Speed USB 2.0 1 Ethernet 10/100 Paper handling input 250-sheet input tray, 10-sheet priority tray Paper handling output 150-sheet output tray Duplex Printing, Manual Warranty One Year	01	No.			
18	Vernier Caliper	LCD Digital Carbon Fiber Vernier Caliper Gauge Micrometer	01	No.			
19	Washing tanks	Washing tanks with different capacities 5liters, 10 liters, 20 liters made with plastics (06 each) Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	18	Nos.			

20	a) Iron stands	Material :metallic Martial type :Iron Size :100 x 75 x 80 cm Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	03	Nos.			
	b) support stands	Stainless steel rod (24" length) Blue or black powder coated support stand base (8" x 5") 4 pronged, cork lined burette clamp, Metal retort ring (2.5" diameter), Perfect setup for a lab Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	06	Nos.			
21	Spade	Head Material: Carbon Steel Size : Medium Handle Material: Steel Shape: Square Shovel Function: Multifunctional Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	02	Nos.			
22	Wood paddle	Handle length: 48 inches Blade length: 6 inches Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	05	Nos.			
23	cage racks	Cages trolley for mice and rat etc. Capacity of storing 100 cages Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	01	No.			
24	Animal cages	Cages for Rats. 2 feet X 1 feet cages suitable for rats 50 Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	50	Nos.			
25	Polyethylene bags	For packing purposes with different capacities Bags of 5kg= 50 bags Bags of 10kg= 50 bags Bags of 15kg= 50 bags Bags of 20kg= 50 bags Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	200	Nos.			
26	Thick sheets	Plastic sheets with thick 12x12 ft. Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	4	Nos.			

Signature & Stamp of Bidder

27	Electricity power cables and extensions)	Complete electricity wiring for instruments, electric wire extensions, switches, plugs for electronic instruments like a)laptop b)printers c)fridge d)freezer e)vacuum drying oven f)weighing balance g)viscometer f)desiccator h) water distillation assembly etc. Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	20	Nos.			
28	Trolleys to carry raw materials	Material: Stainless steel load capacity max: 300KG Vendors are required to visit End User at IRCBM Department for quoting the rates/bid.	03	Nos.			

Special Terms and conditions:

1. Purchase / Work order will be awarded **on Item Wise Basis.**
2. Please submit the technical and financial bid (s) on CIIT-Lahore prescribed BoQs and clearly mention the quoted model brands and also attach the terms and conditions (signed, stamped) with both bids, otherwise your bid (s) may be rejected.
3. In Addition to filling of the attached BoQs, supporting literature of the quoted model must be attached for verification & technical evaluation of the required specification by the technical committee. In case of any clash is found between the quoted model and the literature model. So the item/bid may be rejected.
4. Kindly attach **the tender fee with Technical Bid and Bid money / CDR with Financial Bid.**
5. Multiple rates of an item may also lead to the rejection of bid / item.