



# FATA UNIVERSITY, FR KOHAT

Website: [www.fu.edu.pk](http://www.fu.edu.pk); Email: [info@fu.edu.pk](mailto:info@fu.edu.pk)

## NOTICE INVITING TENDER / BID No. 03/2025

(Single Stage – Two Envelope Procedure)

Sealed bids are invited for the supply & installation of the Lab Equipment's for the Department of Microbiology, under Single Stage Two Envelope Procedure from Manufacturers, Authorized Dealers registered with Sales Tax and Income Tax Department.

Sr. No	Department	Items
1	Department of Microbiology	Lab Equipment's, as per specifications and quantity at annexure "A & B".

(1) Tender forms along with detailed specification, terms and conditions can be obtained from the office of the treasurer, FATA University upon online Deposit Receipt of fee **Rs. 3000/- (Non-Refundable)** in favor of the "**Recurring Grant, FATA University**", A/C **233900504, Branch Code 850**. (2) Interested firms should have adequate financial soundness (supported by latest bank statement), similar work experience and personal capabilities. (3) Bid Cost shall comprise of **rate of the item** and **applicable all taxes** (federal, provincial and professional tax) **separately. (As per the price schedule given in the bidding document)**. (4) All bids shall be prepared by mentioning all applicable taxes including GST as per Govt Rules, after award the applicable taxes will be deducted from the bidders. (5) Any addition, deletion, disfiguring /Over writing, Manipulation in the tender/BOQ shall be liable to rejection. (6) All the bids will be scrutinized by the procurement/technical committee. Incomplete and conditional bids shall not be acceptable; however, the Committee may allow based on nature and suitability (on case-to-case basis) in best interest of the University. (7) The competent authority reserves the right to reject anyone or all the tenders, the reasons for rejection shall be communicated to the firm upon request as per KPPRA rules. (8) Bid security @ 2% of the bid cost shall be placed in financial bid, an affidavit shall be attached with technical bid (s) stating that the bid security is placed in financial bid. (9) Pre-Bid Meeting will be held on 25-02-2025 at 11:00 A.M in the Committee Room of the FATA University. (10) The sealed envelope containing technical and financial bids must be submitted to the office of the Treasurer, FATA University up to 25-02-2025 till 11:00 A.M through registered courier services (No bid will be received by hand). Technical bids will be opened on the same day at 11:30 A.M in the presence of the bidders or their authorized representative in the committee Room of the FATA University. (11) In case of tie, toss shall be carried out in front of the bidders by the committee. (12) The details i.e. Tender Specification and TORs can also be obtained from the official website of the University i.e. [www.fu.edu.pk](http://www.fu.edu.pk).

**CONVENER UNIVERSITY PURCHASE COMMITTEE**  
**FATA UNIVERSITY, FR KOHAT**  
**Phone No. 091 5885502**

# **TENDER DOCUMENT**

For supply and installation of Microbiology Lab Equipment's  
FATA University, FR Kohat

For the Microbiology Lab  
On

(Single Stage Two Envelope procedure)



**Issued by**

**Procurement Section / Office of the Treasurer,**

**FATA University, FR Kohat**

**Khyber Pakhtunkhwa, Pakistan**

**Phone: 091-5885510**

**Web: [www.fu.edu.pk](http://www.fu.edu.pk)**

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**CONVENER UNIVERSITY PURCHASE COMMITTEE**

**FATA UNIVERSITY, FR KOHAT**

**Phone No. 091 5885502**



## **Terms & Conditions**

1. Rates should be quoted against each item of the bid.
2. Call deposit at the rate of 2% (two percent) earnest money/bid security shall be attached with the Financial Bid.
3. Income Tax and Sale Tax shall be deducted at source.
4. In case of non-supply of required item(s) mentioned in the Tender documents, CDR will be forfeited in favor of the FATA University.
5. The successful bidder will be bound to complete supply of items in 30 days for Non-imported items and 60 days for imported items after issuance of the supply order, otherwise penalty will be imposed @ 0.1 % Rupees /Day, Maximum up to 10 % of the total amount in supply order. (Provision of bill of entry copy is mandatory in case of imported items)
6. Quantity of equipment can be increased or decreased as per actual requirement.
7. For the laboratory equipment, the warranty period of at least 01 (one) year is mandatory to be mentioned in the bids & for the Expendables of the items will be one month from issuance of completion certificate.
8. Retention money will be deducted from running bill @10% and will be released after the successful completion of the Defect Liability Period / Issuance of completion certificate/End User Certificate.
9. No tender or bid shall be entertained without 2% Bid Security.
10. Provision of sample is obligatory for the firms in due course of time, if mentioned in supply order, and if the firm fails to provide the sample, then the firm will be excluded from the tender.
11. No alternate rate shall be entertained for the items/equipment.
12. All prices should be quoted on F.O.R (Pak Rupees) inclusive of all taxes.
13. Your bid proposal should be inclusive of freight and all other taxes and to be Delivered at the FATA University's premises.
14. All pages of the bidding documents are mandatory to be signed, stamped meaning thereby bidder agrees to our terms and conditions, mentioned herein, failing which the bid may be liable to rejection.
15. If the vendor fails to deliver the goods / services to the FATA University , within the given deadline, any of the following can be opted by University on the recommendation of the end user and approval of the authority;

- a. An extension in the delivery period may be granted in case a valid reason/justification with necessary documentary evidence is provided by the vendor supporting the reason for delay.
  - b. A penalty up to 10% of the invoice value may be charged.
  - c. Purchase order may be cancelled along with confiscation of earnest money if the vendor fails to deliver the goods / services after the initial or extended delivery time, as the case may be.
16. The Competent Authority reserves the right to accept or reject any or all of tenders processed by assigning any reason(s) (as per KPPRA Rules).
  17. 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 BOQ, otherwise the purchase / work order will be cancelled after due date with confiscation of earnest money.
  18. Purchase order (s) will be awarded to the Most Advantageous or technically recommended bidder (s) on the basis of item wise / subtotal wise / grand total wise according to the nature of BOQ.
  19. No overwriting / cutting / corrections or interpolation will be allowed in the BOQ /Quotations/bids, if any.
  20. Any bids received after the prescribed date & time for submission of bids shall be returned un-opened.
  21. All prices should be valid for at least 120 days from the date of Tender opening, Withdrawal or any modification of the original offer within the validity period shall entitle FATA University to forfeit the earnest money and put a ban on such vendor on participation in University's Tenders / works.
  22. Payment will be made on submission of Invoice in the name of "FATA University" with a copy of delivery challan (s) after the complete order has been supplied, inspected and accepted which includes delivery / installation, and acceptance / inspection thereof.
  23. All the bids will be scrutinized by the committee. Incomplete and conditional bids shall not be acceptable; however, the Committee may allow based on nature and suitability (on case-to-case basis) in best interest of the University.
  24. In case of any dispute or grievance, the matter shall be addressed as per PPRA/KPPRA rules.

25. Product Qualification Criteria: If the product offered by vendor, failed to meet the specifications / standards mentioned in the BOQ, it will be rejected straightaway and no further consideration will be given. Also, if the offered product has better specifications than the requirement of BOQ it will be accepted.
26. Please submit bid (rates) on our prescribed BOQ Form and clearly mention the quoted model / brands, with complete terms and conditions signed, stamped with bids, otherwise your bid (s) may be rejected.
27. In case more than one bidder have quoted same rates for an item; the bidder securing more items (in terms of cost) will be awarded the specific item.
28. Refurbished, Grey, used, open box or smuggled products will not be accepted in any case.
29. As per Notification No. KPPRA/M&E/SBDs/1-1/2015, Dated Peshawar the May 03, 2016, Clause No: 32.2 reproduced as "Within thirty (30) days of receipt of the Contract Form/Supply Order, the successful Bidder shall sign and date the contract/Supply Order and return it to the Procuring agency.
30. As per Notification No. KPPRA/M&E/SBDs/1-1/2015 , Dated Peshawar the May 03, 2016 clause No: 33.2,Reproduced as " Failure of the successful Bidder to comply with the requirement of ITB Clause 32 or ITB Clause 33.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Procuring agency may make the award to the next lowest evaluated Bidder or call for new bids."
31. Note: All the Equipment's should be installed in required Labs; all the installed items, expenses should be provided by Supplier. Supplier should give training to at least 3 persons/end-user.

### **Undertaking**

It is certified that the above terms & conditions have been read, learned and accepted.

\_\_\_\_\_  
Signature of  
CEO/Bidder Dated:  
\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_



## **Technical Specification**

### **At Annexure “A” & “B” at the End of this Document**

**Note:**

32. The unit rate for the item/equipment will be considered.
33. The rate of item/equipment must include all charges of transportation and delivery to the FATA U.
34. The rate shall be inclusive of all taxes, (Showing item wise cost and all applicable taxes separately)

**Bidder Signature with Date:** \_\_\_\_\_

## **Method of Procurement**

The method of procurement adopted by FATA University will be Single Stage – Two Envelope Procedure for selection of the firm as per KPPRA Rule-2014 (amended till date). The bidder should submit two separate sealed envelopes. One envelope should contain the Technical Proposal and the other envelope should contain the Financial Proposal. Both envelopes should be clearly marked “**Technical Proposal**” and “**Financial Proposal**”. Initially only the envelope marked Technical Proposal shall be opened, while the Financial Proposal shall be retained in the custody of Procurement Committee for Goods without being opened. The Technical Proposal will be opened and evaluated 1<sup>st</sup> against the evaluation criteria set for the equipment/item. The Financial Proposal of the technically successful bidder(s) shall be opened at a time, date and venue announced/communicated to the bidders in advance. The bid found to be the lowest/best evaluated shall be accepted, while the financial proposal of bids found technically non-responsive shall be returned unopened to the respective bidders.

**Bidder Signature with Date:** \_\_\_\_\_

# Technical Evaluation Criteria of the Bid

## BID Evaluation Criteria

Name of the Bidder: \_\_\_\_\_

S. No	ITEM NAME	Max MARKS	Marks Obtained
(i)	Tender FEE of Rs.3000/- attached	Compulsory	
(ii)	<b>An affidavit</b> showing that 02% Security is enclosed in the financial bid without showing the CDR amount	Compulsory	
(iii)	FBR active Income Tax Certificate attached	Compulsory	
(iv)	FBR active Sales Tax Certificate attached	Compulsory	
(v)	Warranty Certificate attached	Compulsory	
(vi)	Non-Black Listing Certificate attached	Compulsory	
(vii)	Fair Price Certificate attached	Compulsory	
(viii)	Manufacturer's Authorization Form /Authorized Dealer Certificate	Compulsory	
(ix)	List of clients where such equipment/item delivered, 5 Marks / client.	25 Marks	
(x)	Firm Profile/Soundness/Financial position for the last three years including bank statement	25 Marks	
(xi)	Guarantee/Warranty, 5 Marks /Year Maximum up to 15	15 Marks	
(xii)	Satisfactory letter from client in favor of quoted items: 02 Mark / Letter Maximum up to 10	10 Marks	
(xiii)	Provision of Training to End user, 2 Marks / Training Maximum up to 10	10 Marks	
(xiv)	Numbers of office / Workshop facilities at different Cities of Pakistan, 5 Marks/ city office	15 Marks	
Total Marks		100	

**Note:**

- (i) Submit document as per mentioned criteria
- (ii) Qualifying Marks are 60.

Signature of the Committee Members:

# Price Schedules

(To be printed at Company Letter  
Head)

To

The Treasurer  
FATA University.

S.No	Item Name	Specifications	Unit Price Without GST ( PKR)	GST	Qty	Total Price With GST ( PKR)
1						
2						
3						
4						
5						
6						
7						

Note: in Case of Discrepancy between unit price and total, the unit price shall prevail)

**Bidder Signature with Date:** \_\_\_\_\_

## **Fair Price Certificate**

(TO BE ENCLOSED WITH BID DOCUMENT)

(To be printed at stamp paper)

I/We, M/s \_\_\_\_\_

hereby certify that prices quoted by us against FATA University for the tender \_\_\_\_\_ are the lowest and most competitive as generally applicable to all other buyers and or sold through our agents as per prevailing international market as on the date of quote and if it is established at any stage that these were higher we shall be held responsible and agree to pay immediately the differential to the FATA University.

**SIGNATURE AND SEAL OF THE**

**BIDDER/MANUFACTURER/SOLE AGENT/AUTHORIZED DEALER**

## **Warranty/Guarantee Certificate**

(TO BE ENCLOSED WITH BID DOCUMENT)

(To be printed at stamp paper)

**Firm's Name** \_\_\_\_\_

**Contract No.** \_\_\_\_\_

1. I/We hereby guarantee that the items supplied against the above contract are in accordance with the relevant specifications and terms of the contract and that material used (whether or not of our manufacture) are in accordance with the latest approved standard specifications are of good quality throughout, and that we shall replace free of cost, every article or part thereof which before use or in use, shall be defective or not within the limits and tolerance of specifications requirements, or in any way not in accordance within the terms of the contract.
2. In case of our failure to replace the defective goods free of cost within the period specified by the purchaser, we will refund the cost involved.
3. The Warranty/Guarantee will remain valid for 12 months for Lab Equipment and 01 Month for Expandable items any other agreed term after receipt of goods by the consignee/installation of items.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Status in the firm: \_\_\_\_\_

Dated: \_\_\_\_\_

## Contract Agreement

(TO BE ENCLOSED WITH BID DOCUMENT)

**THIS CONTRACT** is made at ..... day of ..... between the FATA University (hereinafter called the "Purchaser") of the First Part and M/s..... a firm registered under the laws of Pakistan and having its ..... registered ..... office ..... at .....

(Hereinafter called the "Supplier") of the Second Part.

**WHEREAS** the Purchaser invited bids for procurement of items, in pursuance whereof M/s..... being the supplier/ manufacturer/ authorized Agent of ..... (Item name) in Pakistan and ancillary services offered to supply the required item (s); and whereas the Purchaser has accepted the bid by the Supplier for the supply of ..... (Item name) and services in the sum of Rs (amount)- (Rupees.....) cost per unit, the total amount of ..... (Quantity of item) ..... (Item name) shall be Rs..... (Amount)- (Rupees .....

**IN WITNESS** Whereof the Parties hereto have caused this Contract to be executed at the place and shall enter into force on the day and year first above mentioned.

**Signed/ Sealed by the**  
**Supplier/ authorized Agent**

**Signed/ Sealed by Purchaser**

\_\_\_\_\_

\_\_\_\_\_

# Non-Black Listing Certificate

(TO BE ENCLOSED WITH BID DOCUMENT)

(To be printed at stamp paper)

I, \_\_\_\_\_ S/o \_\_\_\_\_ working as  
Proprietor/Managing Partner/Director of M/s \_\_\_\_\_  
having its registered office at \_\_\_\_\_ do hereby  
solemnly affirm and declare on oath as under:

1. That I am competent to swear this affidavit being proprietor/one or the partners/ Director of M/s \_\_\_\_\_
2. That M /s \_\_\_\_\_ is a proprietorship/partnership firm/company is participating in tender process conducted by Institute.
3. That I hereby confirm and declare that none of my/our group/sister concern/associate company is participating/ submitting this tender.
4. That I hereby confirm and declare that my/our firm/company M/s \_\_\_\_\_ and my/our firm/group/company/ sister concern / associate company have not been black listed/de-listed by any Institutional agencies/Govt. Deptt/ Public Sector Undertaking.
5. That there is no change in the Name & Style, Constitution and Status of the firm, after Pre-qualification.
6. That I further undertake that in case any of the facts contained above and in-our application is round other-wise or incorrect or false at any stage, my/our firm/company/ group/sister concerns/ associate companies shall stand debarred from the present and future tenders of the University of Swat.

**(Signature of the Proprietor/ Managing Partner/Director with Seal) DEPONENT**

Verified at \_\_\_\_\_ on \_\_\_\_\_ that the contents of paras 1 to 6 of this affidavit are true and correct to best of my knowledge and no part of this is false and nothing material has been concealed or falsely stated therein.

**(Signature of the Proprietor/ Managing Partner/ Director with Seal)**

DEPONENT

**(Signature & Seal of Notary)**





## Annexure A, (Technical Specification for the Lab of Microbiology)

### A. Specification of Laboratory Instruments:

#### 1. Autoclave (Quantity-1)

##### Description:

Capacity	50L
Sterilization Temperature	105-135°C
Sterilization Time	1-999 min
Sterilization mode	1.Liquid 2.Liquid with warming 3.Solid 4.Instruments packed with cloth 5.Fabric 6.Rubber 7.Fast 8.Waste 9.Agar melting 10.Self defined
Melting temperature	60-100°C
Melting time range	1-999min
Warming Temperature	45-60°C
Warming time range	1-9999min
Exhaust temperature range	73-104°C(Liquid mode) 73-127°C(Solid mode)
Exhaust mode	Automatic internal discharging with an embedded steam collector
Timer range	0-6 days(Sterilization auto start up appointment)
Pressure gauge range	-0.1-0.5Mpa
Pressure	Safety valve set pressure:2.9bar
Controller	"Smart II" fast speed microcomputer controller

##### Features:

Working environment	5-45°C,relatively humidity 10%-85%
Chamber material	SUS304
Chamber(Diax H)	325x381
Rate power supply(W)	2600
Power requirement	220V±10%,16A,50/60Hz
Dimension (LxWxH,mm)	460x542x940
Baskets (DiaxH)	(300x200)x2
Safety device	Seft-induction interlocking device, lid closing checking, over temperature protection system, dry scorch protection, over pressure protection, safety valve, over current and short circuit protection, electric leakage protection, scald protection, automatic failure-inspection system.
Storage	up to 60 programs

- Sterilization process can be pre-set and completed automatically
- Simple and easily understandable control panel to show the sterilization temperature, sterilization time and drying time at the same time, pressing separate keys to set the temperature and time makes the operation easier
- System automatically monitors the discharging of the cold air to guarantee a pure steam sterilization environment and optimal sterilization effects
- LED screen clearly shows the dynamic sterilization process
- 13 error detection procedures to monitor the normal operation of the instrument
- Self-induction interlocking devices to avoid risk of misuse
- Dual over-pressure protection system: upon detection of any abnormal pressure, system will relieve pressures or disconnect power supplies
- Over temperature protection system: power supply will be disconnected for protection upon detection of over temperature
- Dry soorch protection system: power supply will be disconnected for protection upon detection of overflow water level

- Cover checking system: system can automatically check the locking of the cover, if the cover is not tightly locked, the autoclave can't be started
- Electric leakage, over current and short circuit protection: system will disconnect the power supply to avoid an electricity shock or other accidents
- Unique anti-scald cover and bench: avoid causing corrosions and scald

## **2. Microscope (Quantity-2)**

**Description:** The microscope will have features of a 45 degree inclined, 360 degree rotating trinocular head with adjustable interpupillary distance, 10X eyepieces, four objective lenses with four magnification options (4X, 10X, 40X and 100X), a 3D double layer mechanical stage, precise coarse and fine focusing, and a brightfield LED illumination system. The microscope features a trinocular port for attaching a camera without using one of the eye-tubes.

### **Specifications:**

- Head: trinocular, 45 degree inclined, 360 degree swiveling
- Nosepiece: revolving quadruple
- Objective: Achromatic, DIN 4X, 10X, 40X(Spring), 100X(Spring, Oil)
- Eyepiece: WF10X
- Stage: 3D double layer, size 5.5 x 5 in (14 x 12.7 cm), X-Y stroke: 3x2 in (7.6 x 5.3 cm)
- Focusing: coaxial coarse and fine
- Condenser: Abbe, NA=1.25, with iris diaphragm
- Illumination: LED
- Power Supply: 100-240VAC, 0.35A adapter to DC6V, 2A

### **Packing List:**

- 1 Trinocular Microscope Body

- 4 Achromatic DIN Objectives, 4X, 10X, 40X(S), 100X(S, Oil)
- 1 Pair of WF10X Eyepieces
- 1 Bottle of Immersion Oil
- 1 Dust Cover
- 1 AC Adapter
- Net Weight: 10 lbs (4.5 kg)
- Package Weight 20 lbs (9.1 kg)
- Dimension: 10.5 x 7 x 18 in (26.6 x 17.7 x 45.7 cm)

**Features:**

- Achromatic optical system with precise optical glass elements
- Siedentopf interpupillary-adjustable head with adjustable photo port
- 3D double layer mechanical stage with stain resistant finish
- Coaxial coarse and fine focusing with knob tension control
- Abbe condenser with iris diaphragm and filter ring holder
- Adjustable ocular diopter on left ocular tube
- High resolution images over a wide field of view
- Low position coaxial stage X-Y travelling controls
- Stage upward traveling locking mechanism protects objective lenses and specimens
- Heavy-duty metal framework
- Intensity adjustable LED illumination system
- Immersion oil included

- Manufactured under ISO 9001 Quality Control Standards
- Excellent five (5) year warranty

### **3. Biosafety Cabinet (Quantity-1)**

#### **Specifications:**

- sash opening models: 12
- Dimmable LED lighting system
- Centurion touchscreen controller
- Standby height that activates standby mode sustaining ISO Class 2 work zone as the fan runs at half speed
- USB port to relay operational parameters to Building Management System (BMS)
- Remote Modbus
- Default cable port
- Optional 21 CFR Compliance
- Stainless steel interior
- Single-piece work tray
- Equipped with DC ECM blower for up to 70% energy savings
- Low power consumption
- width sizes: 6 ft

Technical Specifications for Bio-safety cabinet

1. Class II Bio-safety cabinet, type A2, open-front, ventilated cabinet in ergonomic design vertical type
2. HEPA-filtered, re-circulated mass airflow within the work space
3. Exhaust air from the cabinet is also filtered by HEPA filters
4. Size: approx. 6 ft
5. Air inflow velocity: Approx. 0.45 m/s
6. Air down flow velocity: Approx. 0.30 m/s
7. HEPA Filter with minimum 99% efficiency against 0.3 $\mu$ m particles, minimum 99% filter efficiency at MPPS
8. Low noise (< 65 db), Low energy consumption and heat output
9. Microprocessor controlled functions with LCD display
10. Audible and visual alarms
11. Florescent Light intensity approx. 1200 lux
12. Standard UV light along with additional UV-interlock
13. Cabinet made of steels (work zone - stainless steel and side walls-electro galvanized steel) with antimicrobial coating
14. Electric supply requirement : 220-240V, AC, 50Hz
15. NSF/ANSI-49/ETL/CE/FDA certification
16. Compatible stabilizer
17. Should have support stand with caster wheels for 4 ft cabinet
18. Warranty 2 years from date of installation
20. Quote for the price of CMC/AMC per year after the expiry of standard warranty

#### 4. Incubator (Quantity-1)

Convection	Natural convection
Temperature range (°C)	4 °C to 60 °C
Spatial temperature deviation (at 37 °C)	± 1.2 °C
Temperature deviation over time (at 37 °C)	± 0.2 °C
Footprint (m <sup>2</sup> / sqft)	0.12 / 1.3
Chamber volume (L )	approx. 25
Chamber dimensions (mm / in (W x H x D))	180 x 310 x 290 / 7.1 x 12.2 x 11.4
Exterior dimensions (mm / in (W x H x D))	260 x 415 x 470 / 10.2 x 16.3 x 18.5
Number of shelves (standard / max)	2 / 3
Max. shelf load (kg / lb)	2 / 4.4
Rated voltage / frequency (V / Hz)	100 - 240 / 50/60
Rated power / max. current (W / A)	45 / 0.45 - 0.85 R



Supplied plugs	US plug Nema 15
Weight (kg / lb)	7.2 / 15.9
Energy consumption at 37°C (W)	14

Features:

- Simple keypad input allows easy temperature setting.
- LED digital display enables users to monitor the chamber temperature at any given time.
- Visual alarm indicator alerts users of abnormal conditions if the chamber temperature exceeds the setting point by 10°C.
- The temperature can be controlled and maintained to 70°C.
- Double doors allow samples viewing from the inner door.
- Shelves can be adjustable.
- The temperature stability is  $\pm 0.3^{\circ}\text{C}$  at 37°C;  $\pm 0.4^{\circ}\text{C}$  at 70°C.
- DNI-10 incubator: a reliable efficient and compact chamber in a sturdy design at a very favorable price. Units are stackable.

**5. Water Bath (Quantity-1)**

**Specifications:**

- Tank: High grade SS tank

- Capacity: 15 litres
- Temperature range: Ambient to 99° C
- Temperature accuracy:  $\pm 0.2^\circ$  C
- Temperature control: Digital PID control
- Timer: 0.1 Hour to 99.9 Hours & continuous
- Safety protection: User settable and fixed thermal cut-out
- Display: Digital display of temperature
- Alarm: Low level water alarm, safety shut down audible/visual alarm
- Operating voltage: 230  $\pm$ 10VAC, 50 Hz.
- Tank design for easy cleaning and draining
- Steel holder for tubes (1.5/2 ml, 5ml, 15 ml) and Flasks (50, 100 & 250 ml)
- Concentric Rings: 1 row, 4 holes
- Comprehensive warranty for two years
- After Sale, Service should be available promptly

## **6. Hot Air Oven (Quantity-1)**

### **Specifications**

- Capacity 50 Litre.

- Temp range: +5°C to 300°C.
- Control accuracy:  $\pm 0.5^\circ\text{C}$ .
- Uniformity:  $\pm 2.0$  at  $100.0^\circ\text{C}$
- Minimum 3 No. of Shelves with height adjustable in 25mm steps
- Load per shelves: 15kg
- Inner dimension: 400x400x450 mm
- Overall dimension: 550x600x800 mm
- Glass window in-built into the door for easy viewing of samples.
- Automatic cut off of heater & blower when door opened.
- Digital PID temperature controller with timer, alarms and auto tuning.
- Aero dynamic internal design for achieving horizontal air circulation.
- Solid and plain bottom without electricals.
- Outer body made of G.I Epoxy Coated
- Inner body made of Stainless steel with clear bottom
- CE certified.
- Warranty period (minimum 1 year) to be mentioned.
- AMC charges to be indicated.
- High quality stainless steel interior and exterior
- Vertical forced convection system with low-noise centrifugal fan ensures the temperature uniformity

- Microcomputer intelligent control with LCD display and timing function
- Programmable design can set 10 segments
- Over-temperature alarm function

## **7. Deep Freezer (Quantity-1)**

### **Specifications**

- Upright Vertical Deep Freezer
- ON/OFF switch and power indicator should be available
- Temperature range -10°C to -40°C
- Direct Cooling Type
- Construction: 1 internal: stainless 304 grade steel, 2 external: corrosion resistance
- Microprocessor controlled system.
- Capacity 260 – 265 Lit
- LED Display
- Minimum 7 drawers required
- CFC- free refrigerant.
- Solid door with lock and handle
- Noise level less than 45 dB.

- Alarms for systems malfunction over and under temperature & sensor error
- Equipment should CE Certified.
- Warranty period to be mentioned
- AMC charges to be indicated

## **8. Centrifuge (Quantity-2)**

### **Specifications**

- Max Speed: 12,000r/min
- Max.RCF: **1610.88 g**
- Type of Rotor: Fixed angle rotor45°
- Capacity: 20ml (protective cover) x 6, or 10mltest tube x 6
- Timer: 0-30min
- Safety lid interlock to prevent cover opening during centrifugation
- Recommended: 5ml micro tubes
- Power input: 75va
- Power output: 25w
- Power supply: 220v +/-10% 50 Hz
- Noise reduction, imbalance detection, and safety lid lock.

## 9. ANALYTICAL BALANCE LAB (Quantity-1)

### Specifications:

Capacity	0 to 100g
Readability	0.1 mg
Repeatability	± 0.2 mg
linearity	± 0.2 mg
Pan Dimension	Dia. 80mm
Stabilization time	3 to 5 sec
Overall dimensions (LxHxW mm)	340x350x215 mm
Power supply	AC 110-240V / DC 9V
weight	7.5kg

### Features

- ▶ Aluminium alloy body material and stainless steel platter with clear glass wind shield
- ▶ Large quantities of materials can be weighed
- ▶ LCD display with backlight makes it easy to read in all lighting conditions
- ▶ Electromagnetic Force Compensation technology
- ▶ Overload protection, bubble level adjustment, under hook, full capacity subtraction, check weighing, percentage weighing, piece counting and multi weighing unit conversion between g/mg/ ct/oz
- ▶ Can operate on AC and DC adapter
- ▶ Certified calibration weight supplied as standard

## 10. Micropipette (Quantity-3)

### Features:

- Fully autoclavable for protection
- Tough PVDF components that stand up to harsh chemicals and the damaging effects of UV light
- Easy maintenance
- Color coded together with Finntips for easier recognition of compatible tips
- Three Pipettes from 1 to 1000  $\mu\text{L}$ :
  - 1-20  $\mu\text{L}$  micro
  - 10-100  $\mu\text{L}$
  - 100-1000  $\mu\text{L}$
- Good Laboratory Pipetting Guide
- Very low operating force
- Advanced ergonomics
- 121°C sterilization (up to 6 times)
- 4-digit volume adjustment
- Volume range identifiable by color
- Calibration tool included

Highly accurate and durable

- +/- 1.80-0.60% accuracy
- $\leq$  0.40-0.15% repeatability

- 3-month warranty

## 11. Vortex Mixer (Quantity-1)

### Specifications:

Load bearing capacity	0.5 kg
Electrical requirements	100/240 V
Operating Modes	Touch mix, ON (Continuous), OFF
Speed range	200 to 3000 rpm
Precise speed control	±5% rpm
Time set	1 to 99 minute continuous
Orbit	4.5 mm
Head	Standard rubber cup
Overall dimensions (LxWxH)	8.1 x 5.9 x 5.2 Inches
Operating environment	4 C to 45 C
Motion	Orbital
Speed display	Scale
Speed control	Electronic
Speed setting	Analog