WEST BENGAL UNIVERSITY OF
ANIMAL AND FISHERY SCIENCES

68, KSHUDIRAM BOSE SARANI, BELGACHIA, KOLKATA - 700 037, PHONE : 2556-3123, FAX : 91-033-25571986
Gram : vetuniv ✦ E-mail : wbuafs1995@gmail.com

Prof. S. S. Dana
Registrar [acting]

E-Tender Helpdesk: (033) 2546-9768
Tele-fax: (033) 2556-3123 **E-MAIL: drsouravchandra1@gmail.com**
Log-on for submission: http://www.wbtenders.gov.in
University Website: http://www.wbuafscl.ac.in

SET OF TENDER PAPERS

Each set contains:-

(1) Application Form.

(2) Detailed Tender Notification Along With Site Details.

(3) Terms & Conditions for Submission of Tender.

(4) Check List.

- **LAST DATE FOR ONLINE SUBMISSION OF BID: 24th August,2017 UP TO 5 PM**

(Prof. S. S. Dana)
Registrar (Actg.)

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Memo No. WBUAFS/Admn/ET(Pt-I)/1778 **Date. 31.07.2017**

E-TENDER NOTIFICATION

e NIT NO : WBUAFS/ADMN/ET-001/2017-18.

Registrar, West Bengal University of Animal & Fishery Sciences invites open e-tender from the **authorized Indian agents / Suppliers / Manufacturers / Authorized Dealers** / **reputed Agencies / firms** for the supply, installation of the Instruments, Equipment, Furniture as mentioned below at Belgachia / Mohanpur / Chakgaria Campus, under WBUAFS. Specification of instruments and furniture are attached as Annexure - I:

The last date for submission of online e-tender is 24th August, 2017 upto 5.00 p.m.

1. Name & Address of the site: West Bengal University of Animal & Fishery Sciences.
   a) Faculty of Vety & Animal Sciences, Belgachia, Kolkata & Mohanpur, Nadia.
   b) Faculty of Dairy Technology, Mohanpur, Nadia.
   c) Faculty of Fishery Sciences, Chakgaria, Kolkata.

2. Details of Supply Work :

A : Instruments / Equipments :

Sl. No.	Name of the Items	Qty. Required.
1.	UV-VIS Spectrophotometer	01
2.	Chrom NAV Version - 2 Software for Chromatography.	01
3.	Refractometer	01
4.	Centrifuge Machine	01
5.	pH meter	01
6.	A.C. Machine 1.5 Ton 3 star/5 star.	01
7.	A.C. Machine 2 Ton 3 star/5 star.	01
8.	Refrigerated Centrifuge	01
9.	Water Cooler – 225ltr	01
10.	Thermocycler	01
11.	Gel documentation System.	01
12.	Gel documentation System with PC.	01
13.	Pocket PH Meter	01

14.	Aquaguard cum cooler (Iron Guard).	01
15.	Double Door Refrigerator	01
16.	Single Door Refrigerator	01
17.	Scanner	01
18.	LED TV 42"	01
19.	Desktop Computer	01
20.	Digital Copier	01
21.	Inverter	01
22.	Scanner cum Printer	01
23.	Antivirus	01
24.	Circle Absorber for Anaesthesia Machine (Boyles Apparatus)	01
25.	Laser Jet Printer	01
26.	LCD Projector	01
27.	Ultrasonic Homogenizer	01
28.	Florican 1.1	01
29.	HERON 1.1 (C)	01
30.	HERON 1.1 (M)	01
31.	Lapwing 1.1 A	01
32.	Emerson	01
33.	Separating Throttling Calorimeter	01
34.	High resolution digital Cammera	01
35.	Automatic Colony Counter Research Laboratory device.	01
36.	Automatic moisture analyzer	01
37.	Ice Flaker	01
38.	High speed document scanner	01
39.	Meat Mincer.	01
40.	Orbital Shaker	01
41.	Homogenizer	01
42.	Shaker Incubator.	01

43	Water Bath with Shaker	01
44.	Automatic Titrator	01
45.	Automatic Kjeldahl Unit.	01
46.	Kettle bells (16 kg)	01
47.	Kettle bells (12kg)	01
48.	Electro transfer mini System Gel	01
49.	Lypophilizer	01
50.	Ghee Clarifier 500 LPH	01
51.	Vacuum Packing (Single Chamber)	01
52	Paneer Coagulation Vat with hot water generator	01
53	Milk Tank with cooling facilities	01
54	Metabolic cages for rats and mice	01
55	Isolated Tissue Bath System	01
56	Paw edema meter (Plethysmometer)	01
57	Data Capsule	01
58	Colorimeter	01
59	Hot water battery for circulation of hot water for Paneer coagulation Vat.	01
60	Radio Frequency Identification	01
61	CO_2 Incubator	01
62	Cooling centrifuge with variable rotor head and stabilizer	01
63	Magnetic Stirrer	01
64	Cyclo Mixer	01
65	PCR System	01
66	Vertical Electrophoresis Systems with power supply and Transier System for Western Blotting	01
67	Vascular Doppler with inbuilt thermal printer and inbuilt rechargeable battery	01
68	Table top Centrifuge with variable rotor	01
69	Automatic digestion system for nitrogen	01

70	Microwave digestion system	01
71	Laboratory grinding mill	01
72	Refrigerated Centrifuge.	01
73	Hot Air Oven	01
74	Muffle Furnace.	01
75	Digital Plethysmometer.	01
76	Basic Isolated Organ Bath	01
77	Rat and Mice metabolic cage	01
78	Automated isolated organ bath	01
79	Semi auto Biochemical analyzer	01
80	Automated Haematology Analyser	01
81	Automated Urine Analyser	01
82	Clinical Colorimeter	01

3. Controlling Officer: Registrar, West Bengal University of Animal & Fishery Sciences.
4. Contact Number : 033 2556 – 3123.

Detailed particulars may be obtained from the website http://www.wbtenders.gov.in from 04th August**, 2017** also be viewed from the Website http://wbuafscl.ac.in.

Each tender must be supported by:-

a) Each Tender, unless the Bidder is exempted under the existing orders of the Govt. of West Bengal or Govt. of India, will have to be deposit **Earnest Money (Refundable as per rules) amounting 2% of the total tender value *only* in form of Demand Draft drawn in favour of "West Bengal University of Animal & Fishery Sciences" payable at Kolkata.**

b) Each Bidder will have to be deposit Cost of Tender value **(Non- Refundable) amounting to Rs. 500/- *(Five hundred) only* in form of Demand Draft drawn in favour of "West Bengal University of Animal & Fishery Sciences" payable at Kolkata.**

c) In case exemption for submission of EMD is claimed, relevant document in this respect valid up to 31.03.2018 shall be uploaded.

d) Scanned Original PAN Card

e) Scanned Original License (valid up to 31.3.2017).

f) Scanned Original Trade License & GST Registration Certificate issued by appropriate authority.

g) Scanned Original P.Tax, Sale Tax, IT Return document / Certificate issued by appropriate authority.

h) Application Form in Annexure-I [Rate in BOQ should not be indicated in the Application, Disclosure of Service Charge anywhere other than BOQ will be a disqualification & such tender will be rejected]

i) Up-to-date Balance Sheet, Receipt Payment Statement & Income-Expenditure Statement of the bidder duly authenticated by any Registered Chartered Firm should be scanned & uploaded in the prescribed e-tender portal.

j) Terms & conditions for submission of tender to be duly signed & stamped and have to be scanned & uploaded as a token of acceptance in the prescribed e-tender portal.

k) All the submitted documents should bear Page number & must be indicated in the CHECK LIST.

No Tender will be accepted, if the same is not supported with all the above documents. The OFFERED RATE SHOULD BE VALID for **One Year.**

On-line submission of tender will start from 2 pm on 04th August, 2017. The last date of submission of tender is 24th August,2017 up to 5.00 p.m. The technical bid will be opened on 25th August, 2017 at 11.30 am. The date of opening of financial bid will be notified later on.

The bidder must abide by the enclosed terms & conditions as laid down by this University.

IMPORTANT: *BEFORE QUOTING RATE INTERESTED PARTIES WILL HAVE TO CONTACT THE REGISTRAR, WBUAFS FOR ANY FURTHER CLARIFICATION ON THE TECHNICAL SPECIFICATION OF THE ITEMS.

(Prof. S. S. Dana)
Registrar (Actg.)

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Terms & Conditions

For submission of BID against N.I.T. No. WBUAFS/ADMN/ET- 001/ 2017-18

1. MINIMUM ELIGIBILITY CRITERIA

Tenders should be submitted in **two bid system .** First bid shall be known as **"Technical Bid"** in which below stated documents must be kept. **In case of lack of any document (Technical Bids), the tender shall be liable to be rejected and Financial Bids not to be considered**. Second bid shall be known as **"Financial Bid"** in which only rates of items should be kept in prescribed BOQ only.

Bid 1: Technical bid:

Technical bid must be contained:

1. Tender Form
2. PAN
3. Valid Trade License,
4. Valid GST Registration Certificate
5. Constitution of Company, Solvency Certificate, if any
6. Photocopy of Authorized dealership/distributorship certificate (currently valid)
7. Income Tax Return copy (latest)
8. Professional Tax
9. Central Sales Tax (if applicable)
10. Credential of bidder
11. Each Tender, unless the Bidder is exempted under the existing orders of the Govt. of West Bengal or Govt. of India (Valid certificate for EMD Exemption), will have to submit **Earnest Money Deposit @ 2% (Two percent) of the Total Value quoted (Rounded-off to nearest hundred) for each item SEPERATELY** in the form of Bank demand draft drawn on any nationalized bank in favour of **West Bengal University of Animal & Fishery Sciences payable at Kolkata.** Tender Notification No, Date of issue, Name of the item and name of the firm are to be clearly mentioned on the reverse side of the EMD draft.
12. **Previous EMD Draft not to be considered for this notification.**
13. Bank Draft of Rs. 500.00 as cost of tender fees for downloaded tender document on any nationalized bank in favour of **West Bengal University of Animal & Fishery Sciences payable at Kolkata.**
14. Specification of items

N.B.: Documents must be Self attested

Bid 2: Financial bid:

1. Financial bid will be opened only when technical bid is found to be qualified
2. In the envelope of this bid only rates of items (prescribed format) will be kept (Separate envelop for separate items except Stationery Items) and envelope will be sealed in one big envelop.
3. **Price can be quoted only in INR.**
4. Separate tender may be submitted for separate group of items i.e. A & B.
5. Validity of tender: Quoted rate shall remain valid for a period of at least 365days from the last date of submission of tender.
6. Normal commercial warrantee/ guarantee shall be applicable to the supplied goods.

7. All duties, taxes and other levies payable by the supplier/manufacturer under the contract shall be included in the total price.
8. Tender Notification No, Date of issue, Name of the item and name of the firm are to be clearly mentioned on the envelope.
9. No conditional financial bid shall be entertained / accepted.

NOTES:

- Rate quoted should be inclusive of all charges for supply at Belgachia, Kolkata-37 or Mohanpur, Nadia or Chakgaria, Kolkata.
- Custom clearance has to be done by the supplier on behalf of the University free of charge (if any).
- Installation of equipment and training for use must be given free of charge at our laboratory (if required).
- No Agency Charge / Commission shall be entertained.
- Copy of certificate of origin should be enclosed.
- Agency / sole distributorship certificate should be enclosed (valid certificate).
- University Authority reserves the right to accept or reject any tender without assigning any reason / reasons what so ever.
- WBUAFS, Kolkata is exempted for excise duty payment.
- **Preference will be given to the manufacturer of the items.**

General:

- Payment shall be made within a reasonable period after delivery of items or completion work, submission of bills and final Quality Approval.
- No Tender will be accepted, if the same is not supported with all the above documents.
- The offered rate should be valid for **365 days** but the period may be extended or curtailed at the discretion of the undersigned/ Appropriate Committee/ Tendering Authority and requirement.
- The quantity and delivery schedule as stated above are tentative and may vary.
- The bidder must abide by the terms and Conditions as laid down by this University.
- Any further clarification on the technical specifications of the items prior to the submission of tender, the firms may contact the undersigned.

2. EARNEST MONEY DEPOSIT & OTHER FEES

i. Each Tender, unless the Bidder is exempted under the existing orders of the Govt. of West Bengal or Govt. of India, will have to be deposit Earnest Money amounting 2% of the Total tender value only in form of Demand Draft drawn in favour of "West Bengal University of Animal & Fishery Sciences" payable Kolkata.

ii. The Earnest Money Deposit shall not carry interest. This university is not liable for deposition of excess of Earnest Money.

iii. Earnest Money deposited before the date of issue of this N.I.T. will not be accepted. Earnest Money Deposit of previous tender will not be adjusted/ considered for this tender.

iv. The onus of proving that a Bidder is exempted from depositing Earnest Money will be on the Bidder & must be proved by submission of valid documents to that effect e.g., Co-operative Societies of this State should furnish Registration Certificate from the State Register of Co-Operative Societies.

v. Earnest Money will be released after finalization of tender as in the following cases:-

a) Tender documents which are not valid or selected..

b) Since a panel of two tenderers quoting Rate(s) lowest one and second lowest, is to be prepared, their Earnest Money Deposits will be retained for 6 (Six) months from the date of approval of Lowest Rate . For such retention no interest will be payable.

c) In other cases, it will be released in due course.

B.FINANCIAL COVER: "BID- B"**:**

- BOQ:

a. Rate should be quote as mentioned in the N.I.T. including incl. of all incidental charges & exclusive of GST.

10. DATES & INFORMATION

Sl.	Activity	Date, Time & Venue
1.	Date of Publishing of N.I.T. & other Documents (On-line)	04th August, 2017 from 2-00p.m.
2.	Starting Date of Downloading Documents (On-line) & Bid submission date (On-line)	04th August, 2017 from 2-00p.m.
3.	Date of hosting of documents at departmental Website	04th August, 2017 from 2-00p.m.
4.	Date of Pre-bid Meeting at the office of the Undersigned	10th August,2017 at 12 Noon.
5.	Closing date of downloading documents & on-line bid submission	24th August,2017 upto 5.00 p.m.
6.	Bid opening date for Technical bid (On-line)	25th August,2017 at 11.30 a.m.
7.	Date of uploading list for Technically Qualified Bidder(On-line)	To be notified later on
8.	Date for opening of Financial bid (On-line)	To be notified later on
9.	Date of uploading of list of Bidders along with the approved rate	To be notified later on.

THE UNDERSIGNED RESERVES THE RIGHT TO CHANGE THE ABOVE SCHEDULE IN CASE OF ANY EXIGENCIES AFTER PUTTING UP A NOTICE IN THE DEPARTMENTAL WEBSITE & NOTICE BOARD.

11. PAYMENT

(i) No advance payment (Part or full) will be entertained in any case.

(ii) Tax Invoice is to be sent in TRIPLICATE along with relevant order, if any, after completion of every month addressed to the Registrar, WBUAFS for making payment.

(iii) Periodical inspection/ surprise visits will be carried out by the Officers authorized for checking performance of the agency during the tenure. The payment will be released after inspection of the area proposed for protection.

(Prof. S.S.Dana)
Registrar (Actg.)

CHECK – LIST

Information about Bidders
(To be furnished 0n-line with the Technical bid)

Sl No.	Description	Particulars	Page Number
1.	Name of the Firm		
1. (a)	Registered Address with PIN, Phone No., E-mail, FAX etc.		
(b)	Sole Owner or Partnership Firm.		
3.	Name of the Person authorized to enter into & execute Contract Agreement		
4.	Earnest Money, whether submitted, if not attested copy of Exemption Certificate attached.		
5.	Scanned Original PAN Card whether uploaded.		
6.	Scanned Original GST Registration Certificate whether uploaded.		
7.	Scanned Original Trade License whether uploaded.		
8.	Copy of Terms & Conditions of the Tender duly signed in each page whether enclosed.		
09.	List of Clients whether uploaded.		
10.	Scanned Original Documentary Evidence in support of prescribed Annual Turnover issued by competent authority whether uploaded.		

Application Format
(To be furnished in the Company's Official Letter Head Pad with full Address with contact no. Telephone no. FAX No., e-mail Address, Website etc.)

Ref. No. ---------- Dated.....

To
The Registrar,
West Bengal University of Animal & Fishery Sciences
68, K.B. Sarani
Kolkata-700037

Sub:

Sir,
With reference to your online WBUAFS/ADMN/ET-001/2017-18 dated 31st July, 2017, I / We.....the Proprietor/Authorised Nominee/s (of the Firm .....) are hereby furnishing my/our rates for the item tendered for, as per your specification, terms & conditions to the West Bengal University of Animal & Fishery Sciences for the year 2017-18.

Should this tender be accepted, I/We hereby agree to abide by & fulfil all the terms & conditions laid down in the online N.I.T. and the particulars available in the Tender Notice & the details given in the specification/ Description or in default thereof to forfeit & pay the Governor of the state of West Bengal, or his successor in office the penalties/sums/or of money that may be imposed by the West Bengal University of Animal & Fishery Sciences, the earnest money deposited herewith or from other money deposited by me/us or from the bills that will be payable to me/us for the supplies to be made.

I/We also agree that the decision of the Registrar,West Bengal University of Animal & Fishery Sciences in all matters in respect of this online tender will be final & binding on me.

I/We also agree to execute on being called upon to enter into a formal agreement embodying the terms & conditions contained herein &/or on usual terms & conditions & on default on my/our doing so, the Earnest Money deposited by me/us will liable to be forfeited.

I am/We are well acquainted with the facts about the firm and the information provided in the tender is true & correct.

Yours faithfully,

Date: Signature & office seal:

Name of the Firm:

Address with PIN:

ANNEXURE-I

A. EQUIPMENTS & INSTRUMENTS:

Sl No. 01. UV-VIS Spectrophotometer:

Specification: Wave length range:190-1100 nm, Lamp type: Tungsten-halogen and D2 lamp/Xenon flash lamp, Spectral bandwith:1/$_4$ nm, Wavelngth reproducibility:±0.1 to0.2 nm, Wavelength accuracy: ±0.1 to 0.3 nm, Absorbance resolution: 0.002/0.001 Abs, Display: Backlit LCD/resistive touch screen, Software and method update: Free updates via internet and USB stick, Automatic calibration, Easy storage of data with analytical PC control software: accessories:1, Rectangular cuvette 10 mm(1pair), 2. Rectangular cuvette 20 mm(1 pair), 3. Rectangular cuvette 50 mm(1 pair), 4. Photo-check colour solutions in round cells for checking the spectrophotometer.

Sl No. 03. Refractometer:

Refractometer (for reading salinity): 20-40 ppt salinity, 20/20 calibration at room temperature for more consistency and accuracy in everyday use, Full ATC (auto temperature compensation) ranging from 5 to 30^{0}C.

Sl. No. 04. Centifuge machine.

With 15 ml & 50 ml capacity rotor Ordinary, 7000 rpm.

Sl. No. 05. pH Meater.

Range: 0 to 14pH (mV upto 1999mV),
Resolution: 0.01pH (1mV),
Accuracy: 0.01pH, 1 digit (1mV, 1digit),
Temperature compensation: 0°C to 100°C (manual),
4 digit LED display with automatic polarity and decimal indications, With one combination electrode, stand , clamp, buffers, dust cover.
Warranty: Two years

Sl. No. 08. Refrigerated centrifuge.

Refrigerated centrifuge: Provision to accommodate attach/remove a wide variety of swing and fixed angle rotors.

Choice of rpm/rcf pre selection.
Options to set operational time, speed /RCF (Relative Centrifugal Force).
Motor overload protection (Centrifuge should auto shut off if over load is detected).
Rotor imbalance protection (Centrifuge should auto shut off if imbalance is detected).
Brushless induction motor for noise-less operation.
Microprocessor control operation.

Noise level should be <70db

1 Rotor compatibility Capacity: Should hold 50 ml centrifuge tubes (Outer Dia X Length 30 ± 0.5 X 115 ±1) mm and 15ml tubes (17 ± 0.5 X 119 ±1 mm) (eg Greiner /corning - PP/PET tubes with conical bottom) with or without adopters.

2 Programme panel Display to show operational parameters

3 Maximum speed Should handle the maximum speed of the below mentioned rotors.

4 Acceleration Profiles Maximum acceleration (zero to Max rpm) in < 18 secs

5 Timer Option Atleast 1 mins - 60 mins and continous run

6 Deacceleration Profiles (Braking) Maximum Braking (max rpm to stop) in <18 secs

7 Refrigeration capacity (Temperature range), Should maintain the temperature of the samples

In designated temperature between 4-400 C

8 Power Supply 230V/50-60 Hz

Sl No. 10. Thermocycler :

96-well PCR plates, 0.2 ml PCR tube strips and 0.5ml PCR tubes, should deal with all types of PCR consumables, temperature control range is 4-99^0 C, Peltier elements, Triple Circuit Technology for heating, lid temperature range of 37-110°C, 3^{0}C/sec^2 heating rate, 2^{0}C/sec^2 cooling rae, 230V, 50-60 Hz power supply.

Sl No. 11. Gel Documentation System

Camera: 5 Megapixel (2592 x 1944), Scientific Grade Sensor, Lens: 8mm, f1.4 hands free lens with Smart Capture Technology, **No focus needed** – never have to touch camera, **AutoExposure** – no manual manipulation of aperture or shutter speeds required Cabinet: **Built in UV Transillumionator (302nm or 365nm) with UV Viewing Port**, Software Controls of UV Light with Automatic Shut-off Switch, UV Safety Override Switch in Door,Standard Filter is Compatible with Ethidium Bromide, SYBR Safe, Gel Red & SYBR GREEN, Maximun feild of View 20 x 24cms, Software: Application driven Imaging offers Streamlined workflow, Saves Images in **jpg.** files for publication or **tiff.** files for quantitative analysis, Dimension: 34.6 x 31.1 x 68.6 cms, Weight: 21.4 Kgs, Ready to use right out of the Box.

Sl No. 12. Gel Documentation System with PC.

Hardware:

1. High resolution CCD camera : Greater than 1 mega pixel resolution with 1360x1024 pixel array, 12-bit, around 4096 gray level data acquisition.

2. Pixel Size : 4.6 x 4.6 micron

3. Motorized Zoom lens with f/1.2, 8.5-51 mm lens with broad range amber filter

4. UV and white light source: 302 nm illumination source having 25x26 Tran- illumination areas with foldable white light

5. Fire wire / USB connectivity with fast data transfer.

6. 3 position filter slider with amber filter.

7. Universal dark room with sliding as well as open door facility

8. Upgradeable to chemi application.

Software:

9. Capable of imaging and analyzing 1-D electrophoretic gels, dot blots, slot blots, and colony counts. Rapid molecular weight determinations with choice of multiple regression models; Band/lane matching analysis with comparative dendrogram creation; Background subtraction correction of gradient gels and also for individual lanes; VNTR and Phylogenetic tree formation; Accurate concentration analysis using sophisticated volume tools, volume box, volume circle, volume contour, or freehand drawing; Colony counting that discriminates colonies and plaques; Annotation tools to add text and lines; 3 D viewer for critical analysis of closely spaced bands; Tools for compliance with US FDA 21 CFR Part 11 regulations

Sl No. 13. Pocket P^H Meter

- Simple one –touch operation
- Reading on single drop sample of 100 µl
- 5 point calibration facility
- USA / NIST Calibration curves
- pH Resolution: 0.01 pH
- pH Accuracy: ±0.01 pH
- Facility of measuring pH, mV and temperature
- Auto temperature compensation facility
- Automatic power off facility after 30 minutes non-operation
- Included standard 4.01 and 7.01 pH Buffer Solutions

Sl. No. -15. Double Door Refrigerator.

Capacity: 350 Ltr Branded company

Sl. No. -16. Single Door Refrigerator.

Capacity: 212 Ltr. Branded company

Sl. No. -19. Desktop Computer.

Processor: Intel CORE I5 6400 (6th Generation)
Motherboard :Intel chipset based OEM motherboard with support for PCI Express x16 graphics port.
Memory: 4GB RAM DDR4 or better with minimum 2DIMM Slots expandable upto 32GB
Hard Disk Drive: 1 TB 7200 rpm SATAII (3Gb/s)
Hard Disk Controller:Integrated On-Board Hard Disk Controller supporting Serial ATA Interfaces
Monitor : 18.5" TFT/LED Digital Display
Display : Support dual Display
Power Supply : Minimum 200W SMPS
Internal CD ROM.
Security (Software) : Mc Afee Anti Virus for 3 Years
Security (Hardware) : TMP 1.2 Security chip
Key Board : USB / PS2 104 Keys or more Multimedia Keyboard Rupee Symbol ready isolated keyboard
Mouse : USB/PS2 Optical Scroll Mouse
Network Card : Integrated on board Ethernet Controller 10/100/1000 with PXE support and Remote wake up
Interfaces: Minimum 6 USB with 2 in front & 2 NOS USB VER 3.0.Audio Ports, VGA and RJ45
Expansion-Graphics Slots : Total 4PCI series slots with at least 1PCIe X16 slot
Cabinet : MATX Cabinet with at least 4 bays (2x5.25" External, 1x3.5" External, 1x3.5" Internal)
Audio : Integrated on board audio controller
Operating System: Windows 10 (64bit)
Warranty: Three year (On-Site, Comprehensive)
OEM Ranking: Among Top 5 Global Brand as per IDC rating
MAF : Tender Specific MAF by Manufacturer

Sl No. 20. Digital Copier :

Digital Copier cum Network Printer cum Colour Scanner (upto A3 Size Paper) , Speed – 25 ppm, Memory RAM – 512 MB, Zoom – 25% – 400%, Tray – Two trays Standard (2X250 Sheet).By pass Trey : 80 sheets.

Sl No. 21. Inverter :

(Standard make, popular brand, Battery --Tubular Super gel technology, Inverter machine -- minimum 12V, UPS 900) capacity atleast four ceiling fans and six tube lights at a time. Quotation with full specification and brand name may be invited --- one at Dean's Office F/o VAS Mohanpur.

Sl No. 23. Antivirus :

10 users 3 years Total security.

Sl. No. 26 LCD projector.

Display Type	: LCD
Light Output	: 3200 Lumens
Warranty	: 3 Year(s)
Features	: LAN, Speakers
Audio	: Mono
Contrast Ratio	: 500:1
Throw Ratio	: 1.45:1 to 1.76:1
Aspect Ratio	:4:3
Resolution	:XGA (1024x768)
Audio Output	: 1 Watts
Color	: White

Sl No. 27. Ultrasonic Homogenizer (Probe Sonicator)

- Programmable operation: 10 program can be set with pre-fixed parameters like time, amplitude
- Pulse ON/OFF Control
- Amplitude Control
- Auto tuning
- Overload Cut-off
- Error Message

Technical Specification:

- Ultrasonic Power: 650W
- Frequency : 20-25 KHZ
- Amplitude Variation: 1% -99%
- Standard Probe: ø6
- Optional Probe:ø2,ø3,ø10,ø12,ø15
- Probe Material: Titanium
- Crushing Capacity: 0.5 -750 ml
- Dimension: 400 x 280 x 220 mm
- Power supply: 220-240 VAC, 50/60 Hz

Sl No. 32. Emerson

1KVA true online UPS with
double conversion technology system
having 1phase input & 1phase
output without battery**.**

Supply of 12V, 3nos SMF battery with
Battery rack & Intercell
connector to provide 30mints backup

Sl No. 34. High Resolution Digital Camera

20.3 megapixel Bridge camera with a massive 60x optical zoom which is extendable to 120x Dynamic Fine Zoom. Also featured should be a high-performance Autofocus (AF) System, 4K UHD movie recording and shoot RAW (NRW) for high-quality photo finishing. 5-stop Dual Detect Optical VR (Vibration Reduction) and side zoom control minimise camera shake, plus should be shoot with the electronic viewfinder or vari-angle LCD monitor.

The zoom range covers from 24 mm wide angle to super-telephoto 1440 mm angles of view (equivalent in 35 mm format) and supports powerful macro photography for subjects as close as approximately 1 cm to the lens.

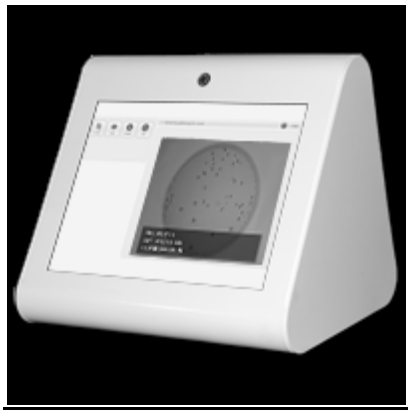
Sl No. 35. Automatic Colony Counter Research Laboratory Device.

Device Physical & Electrical Specifications

Width (mm)	380
Depth (mm)	285
Height (mm)	320
Weight (Kg)	8,9
Min working temperature	10°C / 50°F
Max working temperature	40°C / 104°F
Electrical Voltage (V)	100 – 240
Electrical frequency (Hz)	50 – 60
Electrical current input (A)	3
Humidity level range (%)	20-80
Idle power consumption (W)	1,30
Avg. consumption (W)	20
Max consumption power (W)	35,2

Hardware Specifications

USB	2x USB 2.0
Screen size	15”
Brightness	250 lumens/m²
Resolution (pixeles)	1024 x 768
Touch screen technology	Resistive 5 levels



Sl No. 36. Automatic Moisture Analyzer.

Testing or weighing capacity 110 g , Readability 1mg/0.001g , adjustable drying temperature and time.

Sl No. 37. Ice Flaker

Ice making capacity: 20 kg/day. Storage capacity: 10 kg.
External dimensions: (L × W × H) (mm): 33X470X605
Stainless steel body, CFC-free refrigerant.
All ice making processes are automatically controlled.
Warning indicator lights available. Ice maker will stop working in case of water shortage or full storage of the ice.
PU foamed ice storage cabinet to have better insulation, prevents ice from melting easily
Water for ice making is recycled to save water and power consumption, further increases ice making efficiency. Tap water can be selected for ice making.
Gross weight: 30 - 36 kg, Power Supply: 230 V/50 Hz, 180 W.

Sl No. 38. High Speed Document Scanner:

Automatic Document Feeder Capacity = 50 sheets.
Scan Speed (Colour / B/ W) 40 ppm & 80 ipm.
Size : upto A3 page.
Scanning Feature : Duplex
Scan Resolution : 150 X 150 dpi, 200 X 200 dpi, 300 X 300 dpi, 400 X 400 dpi, 600 X 600 dpi.
Multi Stream Scanning is Possible.
Volume of Scan : 5,000 – 10,000 per day.

Sl. No. 39. Meat Mincer.

Meat mincer: HP-0.35 HP, Volts-120V, Watts-250W, Neck #8, Overall Dimensions- (L x W x H) 19.3in. x 8.3in. x 13.6in. (490 x 212 x 345 mm), Capacity Per Hour 264 lbs. (Pork) / 198 lbs. (Beef), Motor Speed - No Load 240 RPM, Hopper Size Elliptic 11.8in. x 7.9in. x 4.3in. (300 x 200 x 109 mm), Inlet Diameter 2in. (51mm),, Outlet Diameter 2.4in. (62mm), Plate Diameter 2.4in. (62mm), Size of Plate Holes 3/16in. (4.5mm), 3/8in. (10mm), Stuffing Tubes Included 3/8in. (10mm), 3/4in. (20mm), 1-1/4in. (30mm), Discharge Pan Dimensions (L x W x H) 9.4in. x 8.7in. x 1.6in. (240 x 220 x 42 mm)

Sl No. 40. Orbital Shaker

The body made of M.S. and painted with Epoxy Powder Paint. The tray made of Stainless Steel, approx. size: 325x325 mm, approx. shaking speed 20 to 200 orbital strokes per minute and the orbit diameter of 25 mm.
Warranty: Two years

Sl No. 41. Homogeniser

Working Volume range 0.5ml – 100ml (H2O)
RPM : 8000-30,000 RPM.
Speed control : Step less.
Noise without element within the range of 65 dB.
Extension arm diameter : 8mm.
Extension arm length : 130mm.
Protection class according to DIN EN60529 IP.

Sl No. 42. Shaker Incubator

Volume about 5ft3/140 lit.
Double walled with inner one SS steel and outer MS sheet.
Temp. Range : ambient to 600C (Digitally controlled with accuracy of ± 0.50C)
3 removable SS trays with electrically Operating shaking facilities.

Sl No. 43. Water bath with Shaker

TEMPERATURE	
Range	**Ambient +2°C to 100°C**
Accuracy	**±0.1°C**
Uniformity	**±0.1°C**
Setting	**Membrane keypad**
Control	**Microprocessor**
Display	**Digital to 0.1°C**
SHAKING	
Mode	**Orbital**
Speed (slightly lower at 50 Hz)	**20 to 400 rpm**
Display	**Digital tachometer**
TIMER	**99 hours and 59 minutes in 1 minute increments, or for continuous operation**
MOTOR	**Maintenance-free, brushless**
HEATER	**1500 watts**
DIMENSIONS	
Overall, W x D x H	**(26 x 23 x 21) in** **(66 x 58 x 53) cm**
Bath, W x D x H	**(21 x 15 x 7.5) in** **(53 x 38 x 19) cm**
Bath Capacity	**38 liters**
Platform, W x D	**(19.3 x 12.5) in** **(49 x 32) cm**
SHIPPING WEIGHT	**241 lb (110 kg)**
POWER SOURCE	**120V (220V available), 50/60Hz, 1500VA**

Sl No. 44. Automatic Titrator.

Measuring item/range

pH : pH0.00 to pH14.00 (standard 2ch only)
mV : 0 to ±1.999mV
Temp:0 to 100oC
Current : 0 to 200µA(by range selection)
Electric conductivity : 0 to 20S/m (by range selection)
Light penetration rate : 0 to 100% (photometric titrator)
pH calibration : Automatic 3-point calibration (pH4.01, 6.86, 9.18)

Titration/titration method/ measuring method :

Automatic end point detection method (up to 5 points detectable)
Set point titration(ditto) (up to 5 points detectable)
Full volume titration(ditto) (up to 5 points detectable)
Intersection detection method (up to 2 stages detectable)
Stat titration Preliminary titration pKa measurement pH(mV) measurement pH adjustment

Sl No. 45. Automatic Kjeldahl Unit.

Fully automated distillation units for protein analysis

in combination with sampler and Auto digestion units provide the ultimate in automated Kjeldahl analysis

facilitatepre-program sample dilution, alkali and receiver solution addition, distillation time and tube drain, external titration connection (Mettler, Metrohm, Schott, etc.) and modularly upgradeable to analyser and sampler system.

Upgradeable to 20 place auto sampler for fully unattended operation. Interchangeable burette for easy titrant exchange.

Ethernet connection to eliminate communication problems with printers and balances. Touch sensitive colour display. Complete PC control of all registration and reporting through optional data management software - Compass.

Sl. No. 46. Kettle bells (16 kg).

Good quality and branded.

Sl. No. 47. Kettle bells (12 kg).

Good quality and branded.

Sl. No. 48. Electro transfer Mini System Gel

(Size: 8cm x 7cm) good quality.

Sl. No. 49. Lyophilizer

Branded company

Sl. No. 50. Ghee Clarifier 500LPH

Ghee Clarifier Centrifuge having capacity 500LPH, Complete bowl, Bowel Disc and Spout set will be made stainless steel 304 quality with ½ H.P. three phase A.C. Motor with spares and tools

Sl. No. 51. Vacuum Packing (Single Chember)

I. Suitable Vacuum Chamber size, Sealing size and sealing width for paneer packing
II. Nitrogen Attachment:
III. Power: 220V single phase
IV. Connector- TC/L & T
V. Construction: Contact part Complete S.S 304 & MS Sheet For base
VI. Timer: Digital PLC Based

Sl. No. 52. Paneer Coagulation Vat with hot water generator

Capacity : 300 Ltr.
MOC of Inner Shell : SS304, 2.05 mm thick.
MOC of intermediate Shell : SS304, 2.05 mm thick , Dimple Jacketed.; Insulation : 100 mm.;
MOC of Outer Shell: SS304, 2.00 mm thick.
It shall complete with : Steam Inlet, Agitator with geared motor, Drain Port with strainer & Top Cover. (rectangular shape)

Sl. No. 53. Milk Tank with cooling facilities.

Milk Contact Part Complete S.S 304 & MS for base structure.
Power : - 220 V Single Phase.
MOC of Inner Shell: SS 304, 2.5 mm thk.
MOC of Intermediate shell: SS 304, 2.5 mm thk, Dimple Jacketed
Insulation:100 mm
MOC of Outer Shell: SS 304, 2.0 mm thk
It shall Complete with:

- Single phase compressor with complete refrigeration cycle
- agitator with geared motor
- drain port with strainer,Capacity 100 lit,
- open able Top cover.

Sl. No. 54. Metabolic cages for rats and mice.

Good quality and standard size.

Sl. No. 55. Isolated Tissue Bath System.

Fully Automated

Sl. No. 57. Data Capsule.

Evo Digital Recorder.

Sl. No. 58. Colorimeter

Small convenient sample size of 1 ml only. Long life broad spectrum LED Light Source. Very few controls make for ease of operation, compact space saving design. Wavelength : 400 to 700 mm selected by filter mounted on a turrel. Light Source : 6V LED

Sl. No. 59. Hot Water Battery for circulation of hot water for Paneer coagulation Vat.

Shell & Tube heat exchanger.
Hot water pump
Pneumatic Steam Control Valve.
Steam trap system.
Make up water bottle.
Control Panel with PID Controller.

Sl. No. 60. Radio Frequency Identification

RFID Ear Tags 20 nos., RFID Bolus 20 ns., RFID Injectable Tags 20 nos, RFID Readers (IDT 580N)., Ear Tags Applicator, Bolus Gun.

Sl. No. 61. CO_2 Incubator.

Water Jacketed; Capacity: 184 Lt.; Dimensions (D×W×H) Interior: 50.8×54.1×68.1; Temperature Range: 5 to 55° C; Relative Humidity: Ambient to 95% at 37° C; Shelves: at least 4. CO_2 concentration control: IR/TC Sensor

Sl. No. 62. Cooling Centrifuge with variable rotor head and stabilizer

MAX 20000 RPM / 37570 RCF, LED display of speed and time, imbalance detector, dynamic brake, safety lid lock; Rotor Head Complete with Polypropylene Tubes (Capacity 12 x 15 ML); Rotor Head Complete with Polypropylene Tubes (Capacity 8 x 50 ML); Rotor Head Complete with Polypropylene Tubes (Capacity 24 x 1.5 ML); controlled Voltage Stabilizer.

Sl. No. 63. Magnetic Stirrer

Speed up to 1200 rpm; Stirring capacity upto 1000 ml; Digital Speed Indicator for displaying of striing speed.

Sl. No. 64. Cyclo Mixer

Mains Input : 230V/50Hz |110V/60Hz A.C. Supply Body : Metal Body; Weight : light weight; Speed : 0 - 2500 RPM (Variable); Operation modes :Touch Or Continuous

Sl. No. 65. PCR system

Sample capacity: 96 × 0.2 mL PCR tubes or 1 PCR plate 8 × 12; Temperature control range of the block: 4 – 99 °C; Temperature control mode: Fast, Standard, Safe; Heating technology of the block: Peltier elements, Triple Circuit Technology; Gradient range: 1 – 20 °C; Gradient temperature range: 30 – 99 °C; Lid temperature range: 37 – 110 °C; Block temperature accuracy: ±0.2 °C; Heating rate: 4 °C/s; Cooling rate: 3 °C/s; Gradient block: Over 12 rows; Power supply: 230 V, 50 – 60 Hz.

Sl. No. 66. Vertical Electrophoresis Systems with power supply and Transfer System.

Material: Acrylic plastic and stainless steel; Plate size: large (160 X 160 X 10.5-12(T) mm) and mini (120 X 102 X 7(T) mm) Gel thickness: 0.5-2 (D) mnm

Power supply Output:1 - 300 VDC in 1V steps 1 - 400 mA in 1 mA steps, Automatic crossover; Maximum : 50W; Timer: 1-999 minutes; Display: LED 3 digits x 2, 1 line for voltage, 1 line for current and time, selectable; power requirement 200-230V, 50-60Hz, 70VA

Transfer System:

Method: Semi Dry; Material: Acrylic; Platinum Titanium Anode and corrosion resistant cathode.

Sl. No. 67. Vascular Doppler with inbuilt thermal printer and inbuilt rechargeable battery

1. 8MHz Bi-Directional high sensitive Doppler probe with safety cap
2. Multi frequency Probes (4,5,8,10& 20MHz) Facility as optional
3. Detachable Probe Facility
4. PPG (Photo plethysmography) for Artery and Vein Study
5. Built-in Thermal Printer for Graphical and Numerical details printing.
6. Head phone facility available to hear mild flow sound of blood vessels.
7. Auto Shutoff system should available with machine.
8. Freeze mode for Waveform and Numerical data annotation available
9. Head phone facility available to hear mild flow sound of blood vessels
10. Peripheral Vascular study, Penile and Digital systolic pressure procedure
11. External Key Board provision for entering patient information (Optional)
12. Mode Setting : Memory(Store, Read & Clear), Direction, Scale(Time & Unit) etc
13. LCD Display : i) 128x64 dots with back light
    : ii) Real time Waveform with Automatic gain and base line control
    : iii) Numerical data (Blood Velocity, Resistance Parameter, Pulsatility Index, Heart Rate 32-300 BPM)
    :iv) Battery level and Low Battery Indicator
14. Memory : 30 Waveform
15. Printer : i) Resolution: 384 dots/line
    : ii) Paper: W 58 mm x L 25 m/ Thermal
    : iii) Print speed: 25 mm/sec
16. Interface : USB Interface with Software for Transfering waveforms & Numerical data to computer. (DICOM Compatibility)
17. Battery : Ni-MHBuilt-in Rechargeable Battery pack with its Adaptor.
18. AC adapter : 120-240 V AC, 12 V DC, 580 mA
19. Speaker Output : 250 Mw or More
20. Automatic Shut – off : 3 Min.with no signal
21. Probe Button : Freeze & print
22. Headset Output : Cuts off Speaker

23. Weight : 560gram approx. (Including Battery & Probe)
24. Machine should have US FDA, ISO, CE or Equivalent Compliance with Electrical

Safety standard IEC60601-1.

25. Desktop Computer:- Dual Core 6th Generation, Mother Board 110, RAM 4 GB DDR4, Hard disk 1TB, DVD Writer, Multi Media Key Board, Screen Size 18.5" LED, UPS
26. Colour Laser Printer.

Sl. No. 68. Table top Centrifuge with variable rotor head

Max. speed 6000 rpm with brushless induction motor, LED display of speed and time, imbalance detector, dynamic brake, safety lid lock rotor identification

Swing out rotor suitable for 1.5ml tubes; Swing out rotor suitable for 15ml tubes; Swing out rotor suitable for 50ml tubes

Sl. No. 70. Microwave digestion system

Digestion vessel capacity	Min. 16 vessels or more. Digestion Vessel should be rugged and can be placed individually in the oven in any number from 2-16 position or more.
Power	Unpulsed Microwave power upto 2000W using 2 magnetrons, adjustable in 1% increments.
Microwave Output Power	Min. 1500W peak output
Temperature Control	Direct Temperature Control in real-time should be available. Should have facility to measure the actual sample temperature in each individual vessel
Pressure Control	Direct Pressure Control should be contact-free. Should have facility for optical sample pressure measurement system for reference vessel.
Cavity and Lid	Should be stainless steel construction with heat-bonded fluoropolymer coating preferred.
Overpressure Venting	The equipment should have overpressure venting facility and should have integrated gas containment manifold
System Control/Software	The instrument should be computer operable Pre-installed library of tested methods should be available. The software should have facility to show real-time display of digestion conditions Facility for digestion data export via USB or Ethernet preferred.
Safety features	The quoted instrument should have below minimum safety features and should be incorporated in the basic system: - CE Safety and EMC emissions compliance - NRTL and FCC safety and emissions compliance - REACH - WEEE - WEEE
Display	Should have full color touchscreen
Vessel design :	
The vessel should be made of solid TFM fluoropolymer construction with should be equipped with pressure seal and screw cap	
Volume : Min. 75 mL or more	
Recommended Pressure Rating should be min. 40 Bar	

Operating Temp Range: From ambient to 260°C
Overpressure Protection should be available
Facility for identification of each individual should be available.
One year warranty of the vessel is recommended.
Spares and consumables like seals, metal safety disk, polarizations foil to be included in the offer
Power Supply 230V AC - 50/60 Hz
Ambient Temperature : 15 to 350C
Relative Humidity Max 85%, non-condensing
Noise Level < 70 dBA approx..
Price must be quoted upto FOR WBUAFS, kolkata delivery

Sl. No. 71. Laboratory grinding mill

- Grinding Chamber Made of Tefcel (PTFE, glass fiber-reinforced) with stainless steel inlet
- Process type batch
- Operating principle cutting/impact
- Motor rating input [W] 160
- Motor rating output [W] 100
- Speed max. [rpm] 29000
- Circumferential speed max. [m/s] 53
- Usable volume max. [ml] 75
- Feed hardness max. [Mohs] 6
- Feed grain size max. [mm] 10
- Material beater/cutter stainless steel
- Material milling chamber stainless steel

Sl. No. 72. Refrigerated Centrifuge.

Features	
Maximum speed (RPM)	20000
Maximum RCF (g')	37570
Maximum Tube Size (ml)	100
Maximum Capacity (ml)	400
Lowest Temp. (°C)	-8
Noise	≤ 60dB
External dimensions WxDxH (mm)	775 x 575 x 475
Acceleration Profiles	Low, High
Deceleration Profiles	Coasting, low, high
Calibration window on lid for speed	Yes
Display	LED
Control Communication	Digital
Parameters setting switches	Feather touch keys
Brushless motor with frequency drive	Yes
Inverter fault detection with auto shut down	Yes
CFC free refrigeration system	Yes

Temperature display	°C
Automatic door opening	Yes
Automatic Rotor Identification	Yes
Motor overload protection	Yes
Emergency lid lock release	Yes
Imbalance detection with centrifugation cut off	Yes
Gas Hinge to prevent door falling	Yes
Rotor compatible for this Centrifuges	4x100 ml, 8x25 ml, 12x 50 ml, 24 x1.5 ml

Sl. No. 73. Hot Air Oven

- Microprocessor PID controller (with timing function)
- Polished stainless-steel chamber with rounded corners for easy & quick cleaning
- Uniform distribution of air temperature
- Forced-air convection
- Double layer glass door, larger viewing window
- Internal dimension (W X D X H mm): 450 X 400 X 450 (minimum)
- External dimension (W X D X H mm): 740 X 600 X 600 (minimum)
- Chamber volume: 80 litres
- Temperature range: RT+10°C~300°C
- Display resolution: ±1°C
- Temperature accuracy: 1°C
- Timing range: 1~9999min
- Shelves (Nos): 2
- Power consumption: 1550W
- Electrical requirements: 220V, 50Hz, Single phase

Sl. No. 74. Muffle Furnace.

- Internal Dimensions of the furnace (Depth ×Width × Height) in mm: 300×200×200(Minimum).
- Working Temperature : 1200°C or better
- Heating Element : Silicon Carbide (SiC)
- Temperature Accuracy : ±2°C or better
- Temperature Control : Through microprocessor based PID controller with minimum 30 steps
- Furnace Insulation : Ceramic wool
- Temperature settings & Display : Digital and double display
- Power source : 220 V ,50Hz single phase
- Out body and inner body : Stainless Steel

Sl. No. 75. Digital Plethysmometer.

Features	
Resolution	0.01ml(PLM 01 Plus), 0.001ml (PLM 02 Plus)
Accuracy	± 0.01ml (PLM 01 Plus), ± 0.005ml (PLM 02 plus)
Auto-Calibration	In built auto-calibration mode provides user ease of button touch calibration at any time of experiment.
Immersion Tube Holding Arrangements	Two separate stands provided for holding immersion tube assembly and reservoir avoid reading fluctuations due to animal support on rod of stand.
Microliter Syringe.	Calibration on volume basis using syringe can be done more accurately in place of calibration
Control on Conductivity of solution and reading stability.	
Immersion Tube Assembly	
Measurement for Mouse and Rat.	
Sensor	

Sl. No. 76. Basic Isolated Organ Bath

Features

1. No leakage- thick Perspex joint free tank
2. No glass parts- Oragan bath tube is made of P.P. and reservoir coil is made of Perspex making system breakage free and maintenance free.
3. No leakage from organ tube fitting- use of polypropylene bush for fixing organ tube in place of rubber cork.
4. Uniform Temperature- Inbuilt water circulation pump for uniform temperature control
5. 2 channel system
6. Analogue and digital temperature controller

Sl. No. 77. Rat and Mice metabolic cage

Cage Features

1. easy to use, assemble, and clean
2. Accurately separates urine from faces
3. Few components and consumable
4. Constructed from durable, impact resistant acrylic
5. Stainless steel screen floor and collection funnel
6. O-ring seals for rigid connections
7. Visual clarity for observation
8. Provides 2-5 ml collection in a 24 hour period
9. Urine vessel is removable and disposable
10. Conforms to recommendations set forth in the Guide for the care and use of laboratory Animals
11. Optional Obese and Chiller System Design.

Components

Top Cylinder.
Bottom Cylinder.
Screen Floor
Collection Funnel
Lid Assembly
Food and Water Holders
Urine Collection Vessel.

Sl. No. 78. Automated isolated organ bath

Automated isolated organ bath for tissue and micro vessels stimulation and studies with all accessories (Tissue washing without exposer to air and other accessory etc.)

Sl. No. 79. Semi auto Biochemical analyzer

Optical Module : Static photometer with photometric range (340-670)
8 interference filters 340, 405, 450, 505, 546, 578,
600 and 670 nm
Silicon photodiode detectors
Photometric Range from 0 to 3.0 OD
Quartz Halogen Lamp of 12V, 20W

Measuring Module : Unique Triple Cuvette System
• 18 µl Flow cell
• 10 mm Square Cuvette
• 6 mm Round Glass Tube with Adaptor
Peltier Temperature Control: 20°C-40°C in steps of 1°C
Peristaltic Pump
Minimum Aspiration Volume 200 µl.

Analysis Modes : 1-point linear - Rate A non-linear
2-point linear - 1-point sample blank linear
1-point non-linear - 1-point sample blank non-linear
2-point non-linear - Absorbance
Rate A linear – Coagulation

Memory : 200 User Defined Test Programs
1000 Test Result
Reagent Blank
3 Levels of QC

Result Recall : Collated Reports by Date, ID, Date & ID
Test & Date wise and Patient Demographics

Built-in QC : Daily and Monthly monitoring for 3 Levels
Levy - Jenning QC Graphs

Display : High Resolution Graphics LCD with backlight.
View Area: 120 x 92 mm

Keyboard : 41 Multifunction Keys and 6 dynamic keys

Printer : In Built High Resolution Graphic Thermal Printer
Interface : USB connectivity to PC
Direct printer connectivity through USB port
Port for External keyboard

Power : External Universal SMPS adapter
18V DC, 70W, 100-240V, 50/60 Hz.

Size(mm) : 205 (H) x 450 (W) x 300(D)
Weight : Approx. 7 Kgs.
Optional Accessories : External 16 Position Dry Block Incubator

Sl. No. 80 Automated Haematology Analyser

Analysis Principle
WBC : DC detection method
RBC/PLT : DC detection method
HGB: Non-cyanide haemoglobin analysis method
Parameters
Whole blood mode, Pre-diluted mode
WBC, RBC, HGB, HCT, MCV, MCH, MCHC,PLT,LYM%, MXD%, NEUT%, LYM#, MXD#, NEUT#,RDW-SD, RDW-CV, PDW*, MPV, PCT, P-LCR*
Throughput Approx. 60 samples per hour
Sample Volume WB mode Approx. 50 µL, PD mode Approx. 20 µL
Sample ID. Up to 15 characters
Quality Control Material Eightcheck-3WP (Low, Normal, High)
Quality Control 60 plots x 6 files
Calibrator Material SCS-1000
Dimension (W x D x H)
Main unit : 420 x 355 x 480 mm
Weight Approx. 30 kg
Data Storage Up to 35000 with histogram
Printer Built-in Thermal Printer
Interfaces LAN (Ethernet for host computer), Bar code reader (Handheld)
Serial port (for host computer/RS-232 C),Graphic Printer (option), LAN (SNCS service)**

Sl. No. 81 Automated Urine Analyser.

• Semi-quan_ta_ve reflectance photometer
• Op_cal unit: LEDs and colour detector
• Wavelengths: 470, 540, 650 nm
• Incuba_on period: 55 s
• Capacity: 60 strips per hour in Standard mode or 240 strips per hour with in Smart Timing® mode
• Touchscreen: color TFT LCD display
• Built-in thermo printer
• Host interface: RS232, USB
• Possibility to connect external keyboard or a barcode scanner via PS/2
• Memory capacity: last 360 results

Sl. No. 82 Clinical Colorimeter

Salient Features of Clinical Colorimeter : m Controller with printer facility * 8 Filters covering range from 400 nm to 700 nm; * Provision for Additional Optional Filter; * Display on Digital Panel Meter (LCD) calibrated in ABS, CONC and CHEM mode Specifications : m Controller with printer facility Wavelength range: 400 to 700nm with optical filters. Filter's peak wavelength: 420nm, 440nm,

490nm, 520nm,540nm, 570nm,. 600nm, 700nm Measuring Modes: 1. Absorbance (ABS) 2.Concentration(CONC) (By Factor or by STD) 3.Chemistry (END POINT and TWO POINT) Data Storage: 20 Chemistry. (Open) Photometric Resolution: 0.001 ABS Concentration range: 0.000 to 9999 with floating Decimal point K-factor range: 0.000 to 9999 with floating Decimal point Time delay: 0 - 199 sec. Time interval: 0 - 300 sec. Display: 20 Characters, 2 lines (20 x 2) backlit alphanumeric LCD. Keyboard: 16 Keys (10 numeric and 6 functional) Sample Volume: 500ul in 1ml cuvette or 1 ml in 4ml cuvette. Sample Holder: 10mm Square glass cuvette 4ml volume. Printer port: Centronics printer port 80 column DMP. We are also offering-- Photoelectric Colorimeters Conductivity/TDS Meters (Digital/Microprocessor Based) PH Meters (Digital Microprocessor Based) Âµ Controller Based Flame Photometers Clinical Analyzers Turbidity Meters Photoflurometers Titrator AC Milli Voltmeter Function Generators Signal Generators Power Supplies Multimeters

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