#### OFFICE OF THE DEAN::COLLEGE OF FISHERIES ASSAM AGRICULTURAL UNIVERSITY::RAHA::NAGAON::ASSAM

No: AAU/FY/G-90(part-II)/2019-20/2501

Dtd. 24/09/2019

### **NOTICE INVITING QUOTATION**

Sealed quotations are invited from reputed manufacturer/ authorized dealer suppliers for supply of some laboratory equipments for the College of Fisheries, Assam Agricultural University, Raha-782103, Nagaon, Assam under the ICAR Development Grant. The details of the items / specification and terms and conditions are available in the office of the College of Fisheries, AAU, Raha on payment of Rs.200/ in the form of DD or IPO drawn in favour of the Comptroller, AAU, Jorhat. The quotations will be received up to 20 (twenty ) days after publication of this advertisement. The same may also be downloaded from web sites http://www.vetbifguwahati.ernet.in and http://www.aau.ac.in

(K. K. Tamuli) Dean (i/c) College of Fisheries, Assam Agricultural University, Raha-782103, Nagaon Assam.

SL. NO.	NAME OF THE EQUIPMENT	SPEC	IFICATION
1	ANALYTICAL BALANCE	mg); Repeatability (± 0.0003 g; Min. (Capa LCD; Pan Size: 90 m sec; Calibration: Inter Range: Full; Operatin Humidity: 50-70% RJ Unit: g, ct, ozt, oz, GJ Weighing chamber he Options: 1200, 2400, Interface: RS 232C; I Command and contin supply: AC 220V/ 50	ng temp: 15°C to 30°C; H; Warm up time: 30 min: N, dwt, lb; Key sound: Yes; eight: 210 mm; Baud rate 4800, 9600; Class: I; Data out put mode:
2	BOTTLE TOP DISPENSERS		h comes in contact with
		Glass, so can been us Reagents dispensing a accuracy and precision several stages of strice manufacturing. Each	needs except HF High on is ensured through t quality checks during Dispenser is calibrated in 8655 Standard and supplied PTFE Glass PTFE Glass ball & Seat Screw Type FEP FEP
3	Micropipette (Autoclavable & Adjustable )	0.1-2.5µl	
4	Micropipette (Autoclavable & Adjustable )	0.5-10 µl	
5	Micropipette (Autoclavable & Adjustable )	10-100 µl	
6	Micropipette (Autoclavable & Adjustable )	20-200 μl	
7	BOTTLE TOP DISPENSERS		boratory reagents, High supplied with standard and 45mm, fully

8	FLOW-METER	For measuring water velocity; display unit, Telescopic probe with 2-3 m cable; Must include meter, foldable probe, standard flow sensor and carrying case; Backlight display for proper viewing; Includes cable 20-30 m for measuring flow from distance. or bridge, pool etc.; Includes wind measuring facility; lithium battery.
9	MICRO-CENTRIFUGE	Max speed – 10,000 rpm; Standard fixed angle rotor for 6X 1.5 ml microtubes; optional extra rotor for 12X0.5ml microtubes; Includes - 3 adaptors, 1 power adaptor.
10	SEDGWICK RAFTER CELLS	Gridded Sedgewick-Rafter Counting Cell, brass, 1.0 mL; Slide is 1" x 3"; Cell size is 1.96"W x 0.787"H x 0.04"D; Cell volume is 1.0 mL
11	ZOOPLANKTON NET	For Zooplankton: Plankton Net. Diameter entrance : 130mm, ring dia. 180mm, includes bucket, meshes & Front demountable, in 4 size : 63,80,153,243 Spare Bag for Zooplankton Net, 80/150/250 mesh Size.
12	PHYTOPLANKTON NET	Made of no. 12 standard silk bolting cloth, 125 mesh per sq. inch. 89 cm long net suspended by muslin reinforcement to a 24 cm diameter ring. Three braided leaders attached to swivel front. Tail of bag with 2 cm. Opening closed by tying cloth tape for placing glass vial.
13	MICROWAVE OVEN	Capacity: 20-30 L; Free standing; Material: stainless steel.
14	VACUUM FILTRATION UNIT	Corning bottle top vaccum filtres cellulose acetate membrane, sterile, pore size $0.22 \mu m$ , membrane diam.
15	ICE BOX PRO COOLER	65 L. capacity; Pro cooler with removable divider; Made of expanded HDPE; Expanded polurethane insulation; 2 folding handles on the short sides; Temperature range : -20°C to 40°C; Integrated outlet stopper 2 wheels
16	WEIGHING BALANCE	Weighing capacity-0.001kg to 20.0 kg; Material – stainless steel; Accuracy -1 g; Battery operated Display type – digital.
17	DIGITAL TENSILE STRENGTH TESTER	Display typedigital.Type:DigitalSpeed:100 & 300mm/minCapacity:0.5-10kgAccuracy:+/- 0.1%Load cell:S type with fixed topTraversing speed:VariableMax. grip separation:1000mmMin. grip separation:25-100mmLoad display unit:Newton/KgfDisplay:DigitalSafety device:With Limit Switchto protect from Over TraversePower supply:220 V AC 50 Hz.Counter:1-99999Specially should be designed to measure sampleslike plastic, paper and other packaging films.

18	BURSTING STRENGTH	
10	TESTER	Range: 0 to $8 \text{kg/cm}^2 \times 0.2 \text{ kg/cm}^2$ least
	TESTER	count & 0 to 45 kg/cm <sup>2</sup> × 1 kg/cm <sup>2</sup> least count
		Standard Accessories :
		Rubber Diaphragm (lot of 3)
		Aluminum Foil (For Calibration Checking)
		Operating Manual (English)
		With Calibration Certificate
		Opening in upper clamp : 20-30.5 mm diameter
		Opening in lower clamp : 20-38.1 mm diameter
		Rate of fluid displacement : 80-95 cc/ minute
		Test fluid : Glycerin
		Gear Box : Worm reduction type
		Power required : 220 VAC, 500 W, 50 Hz single
		phase
19	DIGITAL GSM TESTER	Capacity : 100 -500g
		Size of paper : 10x10, 10x20, 20x25, 25x25, 25x40 cm.
		Measuring Range: Maximum 0-3000 GSM with
		template
		size 10x10
		Accuracy : 0.1 GSm
		Front back high bright led display.
		Front on/off feature.
		Piece counting.
		Can weight in carat/Total/Gram. Battery backup of 10 hours with input battery.
		Suitable for testing Paper, plastic and other
		packaging films.
20	COBB TESTER	To determine water penetration in milligrams
		absorbed by surface of 100cm <sup>2</sup> of the specimen
		area.
		Cylinder tilting system
		Screw drive system for clamping and removal of
		specimen
		For paper water level 5-10 mm for one minute
		For CFB water level 20-25 mm 30 minutes
21	FULLY AUTOMATIC	Should be applicable for other packaging films. Range: 50-100ml
	MECHANICAL FFS	Power supply: 230V single phase
	MACHINE FOR PACKING	Power consumption: 1KW
	FISH PICKLE	Speed: 1800-2400 packets/hr
		Sensor setting: eye mark
1		Batch code printing: 3 line printing like mfd,
		mrp etc.
		Packaging material: any laminated and
		polymeric films.
22	DIGITAL SHAKER	2 shelves, L-29.5cm, B-30cm
1		220 V; LED with time and RPM controller;
22		Suitable for staining/destaining of PAGE
23	DEEP FREEZER	Quick freezing function; sealed drawers- prevent frost loss from open door; solid state digital
		temp. controller with alarms; adjustable buskets/
		shelves- 6 nos.; Capacity- 245 ltrs; Temp. range:
		-16°C to -24°C
L	1	1

24	VERTICAL AUTOCLAVE	Sterilization of surgical instruments, rubber, plastic material; staem pressure: 15 to 22 PSI (adjustable); double wall with stainless steel (16 gauge sheet); Immersion type of heating elements; autoclave should be cut of
		automatically due to lack of water; Outer made of mild steel; size: 300 to 500 mm; capacity: 40 Ltrs.

## GENERAL TERMS AND CONDITIONS:

- 1. Any item offered/quoted should conform to the technical specifications desired by the purchaser. Quotations for items beyond the scope of the technical specification asked for shall not be entertained.
- 2. The compliance statement (technical specification desired and offered) along with separate sheet of Terms & Conditions should invariably accompany the quotation both as 'hard copy' and 'soft copy' in a CD/Pen Drive typed in MS word in A4 size paper in landscape orientation (Font size 12, Times New Roman) in the prescribed format (Annexure-I), without which the quotation shall not be considered.
- The bidder shall have to deposit Rs. 200.00 in the form of Bank Draft drawn in favour of "Comptroller, AAU, Jorhat" and payable at Jorhat.
- 4. The tender must be submitted by hand or mailed(Speed post/Courier) within 15 days from the release of advertisement in newspaper or website (whichever is earlier)

# **INSTRUCTION TO BIDDERS**

 All Quotations should mention in the cover of the Envelope distinctly the Name of the Item, Item No., NIQ Ref. No., Bidder's Name & Address, Contact No. etc. as shown below:-

# <u>QUOTATION FOR SUPPLY OF "-----" FOR THE COLLEGE OF FISHERIES,</u> <u>AAU, RAHA-782103, NAGAON, ASSAM.</u>

NIQ REF NO..... DATED..... LAST DATE FOR SUBMISSION. .....

To,

The Dean	
College of Fisheries	
Assam Agricultural University	
Raha-782103, Nagaon, Assam	
India	
From: M/s	
Contact No.:	
Email ID:	

- 2. Standard Technical literature preferably printed & supplied by manufacturer concern on each of the items offered.
- 3. Authorized Dealership Certificate on the offered products in case of dealer/s.
- 4. List of reputed organizations/Institutions, where similar orders have been executed (copies of the purchase/work orders will have to be enclosed).
- 5. GST No of Dean, College of Fisheries, AAU, Raha has been granted. In respect of Tax Components both the parties will follow the norms of GST where ever it is applicable.
- 6. In case the offered price is inclusive of all taxes, the tax components in details should be shown separately.
- 7. Earnest money should be shown in details in the forwarding letter.
- 8. Details of nature and maximum period of **warranty** offered by the Bidder/Vendor.
- 9. After Sales Service: The name & address of the nearest available authorized service centre to College of Fisheries, AAU, Raha, Nagaon should be stated in the quotation.
- 10. NOTE: The bid documents are not transferable and the firm's seal and signature of the authorized official must appear on all the papers and envelopes submitted.
- 11. At the time of delivery/Installation the supplier should stick a Sticker in a suitable side of the instrument/Machine indicating the following:-
  - The name of the company/supplier:-
  - Date of Delivery:-
  - Department/Office:-
  - Date of Installation:-
  - Expiry date of warranty period as per tender:-
  - Date of start for AMC:-
  - Contact No.:
- 12. All enclosed documents should be duly self attested with seal of the supplier/dealer/ manufacturer

#### **TERMS & CONDITIONS:**

(Please note the term 'both foreign & indigenous' wherever mentioned, means the term is applicable to both foreign & indigenous purchase)

 Rates: Rates quoted for indigenous items must be quoted in Indian currency and FOR College of Fisheries, Assam Agricultural University, Raha, Nagaon-782 103, on DOOR DELIVERY Basis, with break-ups as per details below (For import items please refer 'Additional Terms for imported goods' below).

Break-ups of cost:

(a) Basic Price

(b). In respect of Tax components both the parties will follow the norms of GST where ever it is applicable.

( c ). Grand total FOR, College of Fisheries, AAU, Raha Price.

Note: Vague terms like "packing/packaging, forwarding, transportation etc. extra" without mentioning the specific amount will not be accepted. Such offers shall be treated as incomplete and rejected. Bidders shall indicate their rates in clear/visible figures as well as in words and shall not alter/overwrite/make cutting in the quotation. In case of a mismatch, the rates written in words will prevail.

- 2. Validity (Both foreign & indigenous): Quoted rates must be valid for minimum 160 days.
- 3. Earnest Money (Both foreign & indigenous):

All firms are required to submit Earnest Money along with the Quotation. The EMD of unsuccessful bidders shall be returned after award of contract. All tenders received without EMD shall be summarily rejected. The EMD of the successful bidder awarded contract will be retained as performance security till the warranty period is over.

Refundable earnest money deposit, amounting to minimum 2.5% of the total quoted value (rounded off to the nearest thousand rupees) through Demand Draft or Fixed Deposit, drawn in favour of the Comptroller, Assam Agricultural University, Jorhat- 785 013, Assam, India payable at Jorhat will have to accompany all quotations to be submitted. Quotations submitted without appropriate amount of earnest money are likely to be rejected.

Earnest money deposit will not bear any interest, and have to be in the form of demand draft or Fixed Deposit only.

#### 4. PENALTY FOR DELAYED DELIVERY (for both foreign & indigenous):

The date of delivery for the supply order of items should be strictly adhered to. In the event of delayed delivery, installation & commissioning i.e. after the expiry of the period as agreed by both the parties, the vendor shall be liable for a penalty deduction at a percentage of the value of the undelivered equipment subject to a maximum of 10% (ten percent) as detailed below:

@1% up to one week;

@2.5% up to two weeks;

@5% up to three weeks;

@10% for four weeks and above

For the purpose of this clause, part of the week is considered as a full week. In case of delayed delivery, the Chairman, Purchase committee, College of Fisheries, AAU, Raha, Nagaon reserves the right not to accept the subject consignment.

5. IN CASE OF INDIGENOUS SUPPLIES, the goods should be insured against theft, loss or breakage during transit and insurance charges should not exceed 1% of the cost of material supplied, the rates of Tax as per GST (af applicable) should be clearly indicated.

### 6. **PRE-INSTALLATION REQUISITES** (Both foreign & indigenous):

Pre-installation requisites (electrical/floor/space/air-conditioning etc.), if any should invariably be mentioned clearly. **Installation/ Training will be the full responsibility of the supplier/ Indian Agent.** 

#### 7. GENUINE PRICING (Both foreign & indigenous):

Vendor is to ensure that quoted price is not more than the price offered to any other customer in India to whom this particular item has been sold, particularly to other SAU/ IIT/ICAR Institutes and other Government Organization.

- 8. **EXCISE DUTY:** The Institute is exempted from payment of Customs. The DSIR certificate will be furnished when needed.
- 9. All taxes (if require) will be as per GST norms.

#### 10. DELIVERY:

(a) Door Delivery of goods at Department of Aquatic Environment Management, College of Fisheries, AAU, Raha will have to be maximum within 45(Forty-five) days from the date of issue of the Purchase Order.

(b) SAFE DELIVERY OF GOODS: All aspects of safe delivery shall be the exclusive responsibility of the vendor. At the destination site, the cartons will be opened only in the presence of College of Fisheries, AAU, Raha user/representative and vendor's representative and the intact position of the seal for not being tampered with, shall form the basis for certifying the receipt in good condition.

- (c) NO PART DELIVERY: Part shipment will not be allowed.
- 11. **Mode of Payment** for Indigenous Purchase (For import items please refer 'Additional Terms for imported goods'):

Payment for Indigenous Purchases will be made after successful delivery and installation of goods at the College of Fisheries, AAU, Raha generally through A/c payee cheque. In case payment is to be made by DD, the Draft commission will be deducted from the bill amount.

# Note: Please note as per Institute's norm advance payment is not allowed for any purchase.

- 12. **The offers** (Both foreign & indigenous) submitted by telex/ telegram/ fax/ E-mail etc. shall not be considered. No correspondence will be entertained on this matter.
- 13. Late and delayed tender (Both foreign & indigenous):

Late and delayed tender will not be considered. In case any unscheduled holiday occurs on prescribed closing the next working day shall be the prescribed date of closing.

- 14. **Conditional tenders not acceptable** (Both foreign & indigenous): Conditional tenders shall not be accepted on any ground and shall be rejected straightway. In other word, printed conditions mentioned in the tender bids submitted by vendors will not be binding on College of Fisheries, AAU, Raha. All the terms and conditions for the supply, payment terms, penalty etc. will be as those mentioned herein and no change in the terms and conditions by the vendors will be acceptable.
- 15. Specifications are basic essence of the product (Both foreign & indigenous): It must be ensured that the offers are strictly as per our specifications. At the same time it must also be kept in mind that merely copying our specifications in their quotation shall not make firms eligible for consideration. A quotation has to be supported with the **printed technical**

**leaflet/literature** (wherever applicable) and the specifications mentioned in the quotation must be reflected/ supported by such printed technical leaflet/literature, model quoted/tendered specifications should invariably be highlighted in the leaflet/literature for easy reference.

- 16. Enquiry during the course of evaluation not allowed (Both foreign & indigenous): No enquiry shall be made by the bidder(s) during the course of evaluation of the tender till final decision is conveyed to the successful bidder(s). However, the Committee/its authorized representative and office of Dean, College of Fisheries, AAU, Raha, Nagaon, Assam can make any enquiry/seek clarification from the bidders. In such a situation, the agency shall extend full co-operation. The bidders can also be asked to arrange demo of the offered items, in a short period notice, as such the bidders have to be ready for the same.
- 17. The acceptance of the quotation (Both foreign & indigenous) will rest solely with the Dean, College of Fisheries, AAU, Raha, Nagaon, Assam, who in the interest of the Institute is not bound to accept the lowest quotation and reserves the right to himself to reject or partially accept any or all the quotations received without assigning any reasons.
- 18. Force Majeure (Both foreign & indigenous): If the performance of the obligation of either party is rendered commercially impossible by any of the events hereafter mentioned that party shall be under no obligation to perform the agreement under order after giving notice of 15 days from the date of such an event in writing to the other party, and the events referred to are as follows: (I) any law, statute or ordinance, order action or regulations of the Government of India. (II) Any kind of natural disaster and (III) Strikes, acts of the Public enemy, war, insurrections, riots, lockouts, sabotage.
- 19. Termination for default (Both foreign & indigenous): Default is said to have occurred:-
  - If the supplier fails to deliver any or all of the services within the time period(s) specified in the purchase order or any extension thereof granted by FFSc., AAU, Raha, Nagaon.
  - If the supplier fails to perform any other obligation(s) under the contract. If the vendor, in either of the above circumstances, does not take remedial steps within a period of 30 days after receipt of the default notice from College of Fisheries, AAU, Raha, Nagaon, Assam (or takes longer period in-spite of what College of Fisheries, AAU, Raha, Nagaon, Assam may authorize in writing), College of Fisheries, AAU, Raha, Nagaon, Assam may terminate the contract/ purchase order in whole or in part and forfeit the EMD as applicable. In addition to above, College of Fisheries, AAU, Raha, Nagaon, Assam, may at its discretion also take the following actions:

College of Fisheries, AAU, Raha, Nagaon, Assam, may procure, upon such terms and in such manner, as it deems appropriate, goods similar to the undelivered items/products and the defaulting supplier shall be liable to compensate College of Fisheries, AAU, Raha, Nagaon, Assam, for any extra expenditure involved towards goods and services obtained.

#### 20. Applicable Law (Both foreign & indigenous):

(a) The contract shall be governed by the laws and procedures established by Govt. of India and *subject to exclusive jurisdiction of Competent Court and Forum in Guwahati, India only.* 

(b) Any dispute arising out of this purchase shall be referred to the Dean, College of Fisheries, AAU, Raha, Nagaon, Assam, and if either of the parties hereto is dissatisfied with the decision, the dispute shall be referred to the decision of an Arbitrator, who should be acceptable to both the parties, to be appointed by the Dean, College of Fisheries, AAU, Raha, Nagaon, Assam. The decision of such Arbitrator shall be final and binding on both the parties.

#### 21. ADDITIONAL TERMS FOR IMPORTED GOODS

Following terms besides the fore mentioned terms will be applicable in case of foreign purchases:

All Items including for imported items, the code should be strictly F.O.R., Raha, Nagon Campus of the University. Logistic expenditures towards Customs Duty, Clearing Charges, Transportation cost etc. should be included in the rate and shown separately.

# ► In case of Irrevocable Letter of Credit the following points should be maintained strictly:-

i) MAWB No. & HAWB No. & Forwarder's Name (To Whom Release order should be issued by the negotiating bank) should immediately be informed by the Principal through Fax to the Buyer 10 (ten) days before dispatch of the equipment.

ii) Bank Charges outside India, if required, will have to be borne by the Manufacturer/ Principal.

22. Rates: Quoted rates and charges to be stated in the following break-ups:

(a) Ex-works value

(b) + Documentation & Handling Charge, if any

(c) + Estimated Overseas Freight to be paid at actual against authentic documents and monetary receipt

(d) + Estimated Overseas Insurance Charge to be paid at actual against authentic documents and monetary receipt (In case the firm holds open insurance policy, the Insurance Certificate relating to the consignment will have to be provided).

(e) Total CIP/CIF value.

23. After Sales Service: In case of imported items, foreign manufacturing firms should indicate facilities available for after sales service, detail address and contact number of their local representative in India without which their offers are liable to be ignored.

#### 24. Delivery:

(a) Delivery of goods at College of Fisheries, AAU, Raha, Nagaon, Assam will have to be maximum within 60(sixty) days from the date of issue of the Purchase Order. The custom clearing of consignment is the responsibility of the supplier. The University authority will provide necessary documents like DSIR certificate, user's certificate etc.

(b) While transshipment will be allowed, part shipment will not be allowed.

25. **Payment:** All payment will be made by FDD only. On request by the supplier/s 100% payment can be made by FDD. In this case on receipt of your Order Acknowledgement an FDD will be established for total ordered value, thereupon, a Xerox copy of the FDD will be sent to you which will enable you to send the materials. On satisfactory receipt and acceptance of the materials or satisfactory installation and commission of the equipment the Original FDD will be sent to you.

**Note:** Please note FDD will not be opened until and unless Letter of Acknowledgement in original is received at College of Fisheries, AAU, Raha, Nagaon, Assam, directly from the Dean (Even in case of firms having subsidiary office in India). The Indian agents are therefore advised to submit quotation after consultation with their respective principals).

- 26. **Customs Duty:** The Institute is generally exempted from payment of CUSTOMS DUTY EXEMPTION CERTIFICATE WILL BE MADE AVAILABLE BY THE INSTITUTE IN REGARD TO QUOTES IN FOREIGN CURRENCY ONLY [ NOT AGAINST QUOTES MADE BY A FIRM IN INDIAN CURRENCY, UNLESS THE CONCERNED FIRM IS A FOREIGN HOLDING COMPANY WITH 'FDI' CERTIFICATE ISSUED BY THE MINISTRY OF FINANCE, GOVT. OF INDIA ].
- 27. **Agency Commission:** The percentage of ex-works value to be paid to Indian agent in equivalent to Indian currency as agency commission as applicable will have to be clearly stated in the quotation wherever applicable.
- 28. **Country of Origin:** While Country of Origin Certificate will not be insisted, the same however will have to be stated in the Original Invoice for payment through LoC.
- 29. LoC Amendment: LoC/FDD amendment charges due to mistake on the part of the supplier, if any, will have to be borne by the supplier.

Sd/-(K. K. Tamuli) Dean (i/c) College of Fisheries AAU, Raha-782103, Nagaon.

#### <u>Annexure I</u>

#### Format for Quotation

Sl. No.	Sl. No. in NIT	Name of the Item	Desired Specifications of NIT	Offered Specifications	Quoted Unit Price*	GST, Assam Entry Tax etc.	Extra charges (Road tax, packaging etc.), if any, for delivery at destination	Custom duty, if applicable	Total amount *	Other terms and conditions

\*In case of foreign currency, value in Indian Rupee at the current rate must be mentioned.

## List of Equipments with detailed specification to be purchased under ICAR Development Grant 2019-20, COF, AAU, Raha

SL.	NAME OF THE	SPEC	IFICATION
NO.	EQUIPMENT		
1	ANALYTICAL BALANCE	Capacity: 220 g; Read	lability: 0.0001 g (0.01
		mg); Repeatability (±	): 0.0001 g; Linearity (±):
		0.0003 g; Min. (Capa	city): 0.01 g; Display:
		LCD; Pan Size: 90 m	mØ; Response Time: 4-5
		sec; Calibration: Inter	nal calibration; Tare
			g temp: $15^{\circ}$ C to $30^{\circ}$ C;
		•	H; Warm up time: 30 min:
		-	N, dwt, lb; Key sound: Yes;
			eight: 210 mm; Baud rate
		Options: 1200, 2400,	
		Interface: RS 232C; I	-
		Command and contin	1
			-60 Hz; Dimension (L X W
		,	x 345 mm; Weight: 9.5 kg.
2	BOTTLE TOP DISPENSERS	1	h comes in contact with
		e	TFE, FEP and Borosilicate
		Glass, so can been use	ed for all Laboratory
		Reagents dispensing r	needs except HF High
		accuracy and precisio	n is ensured through
		several stages of strict	t quality checks during
		manufacturing. Each	Dispenser is calibrated in
		-	8655 Standard and supplied
		with certificate.	11
		Piston:	PTFE
		Cylinder:	Glass
		Valve Housing:	PTFE
		Valve Assembly:	Glass ball & Seat
		Volume adjustment:	Screw Type
		Delivery Tube:	FEP
		Inlet Tube:	FEP
		Discharge Assembly:	
		Compatibility:	Excellent with all reagents
		except HF	
		Model:	JBTD-6
		Vol. Range ml:	10-100
		Increment ml:	2.0
		Accuracy:	$\pm 0.5\%$

		±0.500ml
		CV: 0.100
3	Micropipette (Autoclavable & Adjustable )	0.1-2.5µl
4	Micropipette (Autoclavable & Adjustable )	0.5-10 μl
5	Micropipette (Autoclavable & Adjustable )	10-100 μl
6	Micropipette (Autoclavable & Adjustable )	20-200 μl
7	BOTTLE TOP DISPENSERS	Volume: 1-10 ml
		Other specifications: Can be used for all laboratory reagents, High Accuracy, should be supplied with standard adapter 28, 32, 36, 40 and 45mm, fully autoclavable.
8	FLOW-METER	For measuring water velocity; display unit, Telescopic probe with 2-3 m cable; Must include meter, foldable probe, standard flow sensor and carrying case; Backlight display for proper viewing; Includes cable 20-30 m for measuring flow from distance. or bridge, pool etc.; Includes wind measuring facility; lithium battery.
9	MICRO-CENTRIFUGE	Max speed – 10,000 rpm; Standard fixed angle rotor for 6X 1.5 ml microtubes; optional extra rotor for 12X0.5ml microtubes; Includes - 3 adaptors, 1 power adaptor.
10	SEDGWICK RAFTER CELLS	Gridded Sedgewick-Rafter Counting Cell, brass, 1.0 mL; Slide is 1" x 3"; Cell size is 1.96"W x 0.787"H x 0.04"D; Cell volume is 1.0 mL
11	ZOOPLANKTON NET	For Zooplankton: Plankton Net. Diameter entrance : 130mm, ring dia. 180mm, includes bucket, meshes & Front demountable, in 4 size : 63,80,153,243 Spare Bag for Zooplankton Net, 80/150/250 mesh Size.
12	PHYTOPLANKTON NET	Made of no. 12 standard silk bolting cloth, 125 mesh per sq. inch. 89 cm long net suspended by muslin reinforcement to a 24 cm diameter ring. Three braided leaders attached to swivel front.

		Tail of bag with 2 cm. Opening closed by tying
		cloth tape for placing glass vial.
13	MICROWAVE OVEN	Capacity: 20-30 L; Free standing; Material: stainless steel.
14	VACUUM FILTRATION	Corning bottle top vaccum filtres cellulose
	UNIT	acetate membrane, sterile, pore size 0.22 µm,
		membrane diam.
15	ICE BOX PRO COOLER	65 L. capacity; Pro cooler with removable
		divider; Made of expanded HDPE; Expanded
		polurethane insulation; 2 folding handles on the
		short sides; Temperature range : -20°C to 40°C;
		Integrated outlet stopper 2 wheels
16	WEIGHING BALANCE	Weighing capacity-0.001kg to 20.0 kg; Material
		- stainless steel; Accuracy -1 g; Battery operated
		Display type – digital.
17	DIGITAL TENSILE	Type: Digital
	STRENGTH TESTER	Speed: 100 & 300mm/min
		Capacity: 0.5-10kg
		Accuracy: +/- 0.1%
		Load cell: S type with fixed top
		Traversing speed: Variable
		Max. grip separation: 1000mm
		Min. grip separation: 25-100mm
		Load display unit: Newton/Kgf
		Display: Digital
		Safety device: With Limit Switch
		to protect from Over Traverse
		Power supply: 220 V AC 50 Hz.
		Counter: 1-99999
		Specially should be designed to measure samples
		like plastic, paper and other packaging films.
18	BURSTING STRENGTH	
	TESTER	Range: 0 to $8 \text{kg/cm}^2 \times 0.2 \text{ kg/cm}^2$ least
		count & 0 to 45 kg/cm <sup>2</sup> × 1 kg/cm <sup>2</sup> least count
		Standard Accessories :
		Rubber Diaphragm (lot of 3)
		Aluminum Foil (For Calibration Checking)
		Operating Manual (English)
		With Calibration Certificate
		Opening in upper clamp : 20-30.5 mm diameter
		Opening in lower clamp : 20-38.1 mm diameter
		Rate of fluid displacement : 80-95 cc/ minute
		Test fluid : Glycerin

		Coor Doy : Worm reduction type
		Gear Box : Worm reduction type
		Power required : 220 VAC, 500 W, 50 Hz single
19	DIGITAL GSM TESTER	phase
19	DIGITAL OSM TESTER	Capacity : 100 -500g
		Size of paper : 10x10, 10x20, 20x25, 25x25, 25x40 cm.
		Measuring Range: Maximum 0-3000 GSM with
		template size 10x10
		Accuracy : 0.1 GSm
		-
		Front back high bright led display. Front on/off feature.
		Piece counting.
		Can weight in carat/Total/Gram.
		Battery backup of 10 hours with input battery.
		Suitable for testing Paper, plastic and other packaging films.
20	COBB TESTER	To determine water penetration in milligrams
20		absorbed by surface of $100 \text{cm}^2$ of the specimen
		area.
		Cylinder tilting system
		Screw drive system for clamping and removal of
		specimen
		For paper water level 5-10 mm for one minute
		For CFB water level 20-25 mm 30 minutes
		Should be applicable for other packaging films.
21	FULLY AUTOMATIC	Range: 50-100ml
	MECHANICAL FFS	Power supply: 230V single phase
	MACHINE FOR PACKING	Power consumption: 1KW
	FISH PICKLE	Speed: 1800-2400 packets/hr
		Sensor setting: eye mark
		Batch code printing: 3 line printing like mfd,
		mrp etc.
		Packaging material: any laminated and
		polymeric films.
22	DIGITAL SHAKER	2 shelves, L-29.5cm, B-30cm
		220 V; LED with time and RPM controller;
		Suitable for staining/destaining of PAGE
23	DEEP FREEZER	Quick freezing function; sealed drawers- prevent
		frost loss from open door; solid state digital
		temp. controller with alarms; adjustable buskets/
		shelves- 6 nos.; Capacity- 245 ltrs; Temp. range:
		-16°C to -24°C

24	VERTICAL AUTOCLAVE	Sterilization of surgical instruments, rubber,
		plastic material; staem pressure: 15 to 22 PSI
		(adjustable); double wall with stainless steel (16
		gauge sheet); Immersion type of heating
		elements; autoclave should be cut of
		automatically due to lack of water; Outer made
		of mild steel; size: 300 to 500 mm; capacity: 40
		Ltrs.

-Sd= Dean, COF, AAU, Raha