

# COLLEGE OF FISHERIES

CENTRAL AGRICULTURAL UNIVERSITY

Lembucherra, P.Box No.60 Agartala, Tripura(W) - 799001.

Phone No. -(0381) 2865264/2865513 Fax- (0381) 2865291/291 7048.

National Tender Notice No. CAU-CF/3(76)/ACCTTS/FAB-COE/2014/ 2590

Dt: 23.01.15

## TENDER NOTICE

Sealed quotations are invited in prescribed forms by the undersigned on the behalf of the Central Agricultural University, Imphal from authorized Indian agents/suppliers/manufacturers for supply, installation, commissioning and demonstration of the following equipments for Center of Excellence Projects, College of Fisheries, CAU, Lembucherra, P.Box No.60 Agartala, Tripura (W) - 799001.

### **Equipments Required:**

Sl. No.	Lab Equipments	Sl. No.	Lab Equipments
<b>Name of Project: Centre of Excellence.</b>			
1.	Upright transmitted light Brightfield and Reflected light Fluorescence research microscope	2.	PCR cabinet
3.	Shaking incubator	4.	. Hot water bath (2 nos.).
5.	Refrigerator 4 deg (4 nos.).		Micropipettes.
7.	Digital pH meter (2 nos.)	8.	Cryo can
9.	Horizontal Electrophoresis with power pack (2 set).	10.	Shaker /Rocker
11.	Trinocular Stereo Zoom Microscope with TL & RL illumination with scientific Digital Camera	12.	Sturdy hot air oven of high precision temperature control (2 nos.).
13.	Blood auto-analyser.	14.	Dark field microscope with camera
15.	Sonicator.	16.	. Western blotting unit.
17.	Tissue homogenizer.	18.	Solar dryer (2 nos.)
19.	Sample preparation mills		Rotary Evaporator with accessories
21.	Nutrient Autoanalyser	22.	Storage Silo for Feed/ ingredient storage
23.	Multi-probe water quality meters.	24.	Spectroflurometer.
25.	Air compressor with temperature control	26.	Reverse Osmosis (RO) System
27.	Oxygen cylinder 50 cft, 110 cft and 200 cft (1each)	28.	power Generator( 5KV)
29.	Fish Breeding equipments and Nets	30.	Pond liner.
31.	Digital Handycam ( 4 nos)	32.	Underwater Camera (2 nos.)
33.	Minor field equipments (field binoculars, potable water quality analyser, Lux meter, water Current meter, Carbouys/ Ice Boxes) (7 sets)	34.	Scale Reader ( 2 nos)
35.	Field data Processors with accessories ( 10 nos.)		

Tender documents containing specifications, general instructions, terms and conditions can be downloaded from the website [www.cau.org.in](http://www.cau.org.in) / [www.cofcau.nic.in](http://www.cofcau.nic.in) / [www.icar.org.in](http://www.icar.org.in)

An amount of **Rs.500/- (five hundred)** only (**non refundable**) to be submitted along-with quotation as cost of Tender Document by **Demand Draft/Banker cheque drawn from any of the commercial bank in favour of Center of Excellence, College of Fisheries, Lembucherra, Tripura** payable at Agartala. All price should be quoted in Indian currency only (INR).

The tender documents accompanied with **Earnest Money Deposit @ 2%** of the quoted price by **Demand Draft/ Banker's cheque** from any of the commercial banks drawn in favour of the Center of Excellence, College of Fisheries, Lembucherra, Tripura payable at Agartala in sealed cover duly super-scribed with **“Tender for Scientific Instruments/Equipments for Center of Excellence Project with tender number”** should be submitted to the **Dean, College of Fisheries, Lembucherra, Lembucherra, P.Box No.60 Agartala, Tripura (W) – 799001** on or before 26<sup>th</sup> February, 2015 up to 4.00 p.m. The tender documents will be opened on **27<sup>th</sup> February, 2015 at 11.00 a.m** in the office of the **Dean, College of Fisheries, CAU, Lembucherra, Agartala, Tripura** in the presence of attending tenderer. **The College will not be responsible for postal delays.**

In no circumstances Earnest money deposit / cost of Tender documents will be accepted other than Demand Draft / Banker's cheque.

The undersigned reserves the right to accept/reject any or all the tenders without assigning any reason thereof. In case of any dispute the decision of the University authorities shall be final and binding.

  
23.1.14  
Dean.

**COLLEGE OF FISHERIES**  
**CENTRAL AGRICULTURAL UNIVERSITY**  
**Lembucherra, P.Box No.60 Agartala,Tripura(W) - 799001.**  
**Phone No. -(0381) 2865264/2865513 Fax- (0381) 2865291 / 291 7048**

**TERMS & CONDITION FOR SUPPLY OF EQUIPMENT/INSTRUMENTS/OTHER ITEMS FOR**  
**CENTER OF EXCELLENCE PROJECT**

1. Sealed tenders are invited by the undersigned on the behalf of the University from **authorized Indian agents/suppliers/manufacturers** for supply, installation, commissioning and demonstration of the following equipments/instruments/other items for College of Fisheries, CAU, Lembucherra, P.Box No.60 Agartala,Tripura(W) – 799001.
2. **The price quoted should be the actual cost of the equipments indicating the maximum possible discount in Indian currency only (INR). All kinds of taxes, freight for FOR College of Fisheries, Lembucherra, Tripura and other duties etc. to be mentioned including successful installation and demonstration of the particular equipment.**
3. Each tenderer shall submit only one tender for each item.
4. Validity of tender: Tender shall remain valid for a period of at least **1 (one) year** from the last date of submission which can be extended on mutual consent and no claim/demand for price escalation during the period shall be entertained under any plea or excuse.
5. Evaluation of tender: the buyer will evaluate and compare the tenders determined to be substantially responsive i.e. which
  - a. are properly signed and
  - b. conform to the terms and conditions, and specifications
  - c. Terms & condition to be signed by the tenderer.
6. Award of contract: Tenderer determined to be substantially responsive with the lowest evaluated tender price shall be awarded with the supply order in due course. The buyer within the validity of the tender will notify the tenderer whose rate is accepted of the award of contract. The terms of the accepted offer shall be incorporated in the supply order.
7. **Payment** shall be made within 30 (thirty) days after delivery, installation and successful operational demonstration of the equipments. Payment for supply shall be subject to timely execution of supply order including installation and operational demonstration. No request for part payment/advance payment would be acceptable. In the interest of transparency and avoid transmit delays the successful bidders will have to intimate their Bank account number along with name of the bank in the bill to facilitate remittance of their payment by e-payment if the said bank Branch is on Core Banking System.
8. Along with quotation, catalogue/leaflets of the equipments showing the make model number, specifications etc., should invariably be included without which they will be rejected.
9. . Normal commercial warrantee/guarantee of the equipments supplied shall be for a minimum period of 12 months from the date of successful operational demonstration.
10. Tender documents containing specifications, general instructions, terms and conditions can be downloaded from the website **www. cau.org.in / [www.cofcau.nic.in](http://www.cofcau.nic.in) / [www.icar.org.in](http://www.icar.org.in)**

An amount of **Rs.500/- (five hundred)** only (**non refundable**) to be submitted along-with quotation as cost of Tender Document by **Demand Draft/Banker cheque drawn from any of the commercial bank in favour of Center of Excellence, College of Fisheries, Lembucherra, Tripura payable at Agartala otherwise the quotation will be rejected.**
11. . The tender documents accompanied with **Earnest Money Deposit @ 2%** of the quoted price by **Demand Draft/ Banker’s cheque** from any of the commercial banks drawn in favour of the Center of Excellence, College of Fisheries, Lembucherra, Tripura payable at Agartala in sealed cover duly super-scribed with **“Tender for Scientific Instruments/Equipments for Center of Excellence Project with tender number”** should be submitted to the **Dean, College of Fisheries, Lembucherra, Lembucherra, P.Box No.60 Agartala,Tripura (W) – 799001 on or before 26<sup>th</sup> February, 2015 up to 4.00 p.m.** The tender documents will be

opened on 27<sup>th</sup> February, 2015 at 11.00 a.m in the office of the Dean, College of Fisheries, CAU, Lembucherra, Agartala, Tripura in the presence of attending tenderer. The College will not be responsible for postal delays.

In no circumstances Earnest money deposit / cost of Tender documents will be accepted other than Demand Draft / Banker's cheque.

12. EMD of the unsuccessful bidders to be returned at the earliest after expiry of the final bid validity and latest on or before the 30<sup>th</sup> day after the award of the contract. If the successful bidders fail to execute the supply within the stipulated time the EMD amount will be forfeited. (No interest is payable against the EMD).
13. Performance Security should be an amount of 5 % (five percent) of the value of the contract to be submitted by the successful bidder in the form of an Account payee Demand Draft, Fixed Deposit Receipt, Bank Guarantee from a commercial bank in favour of the Dean, College of Fisheries, Lembucherra, Tripura payable at Agartala Or An amount of 5% value of order to be deducted from the bill as Performance Security (Security deposit) Performance Security/Security deposit should remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligations.(No interest is payable against the Performance Security/Security deposit).
14. **Suppliers are required to collect necessary sale tax permit from the Tax authority and to supply the materials at the door steps of College of Fisheries, Lembucherra, Tripura on completion of all formalities.**
15. The following certificate has to be submitted along-with the quotation:
  - a) Copy of registration certificate of the Manufacturer/authorized dealer.
  - b) Copy of manufacturing license of manufacturer/authorized dealership certificate.
  - c) Copy of Sales Tax Registration Certificate of the tenderer
  - d) Copy of quality assurance/quality control certificate/DGS & D registration certificate.
  - e) Copy of PAN card.
16. Demonstration & Installation of equipment with manual and training for use must be given free of charge at College of Fisheries, Lembucherra.
17. No Agency Charge/Commission shall be entertained.
18. Central Agricultural University is exempted from payment of Customs duty/ Excise duty as per the certificate issued by the **Department of Scientific & Industrial Research (DSIR), New Delhi** in terms of Government Notification No.51/96-Customs dt.23/07/1996 and Central Excise duty exemption in terms of Government Notification No.10/97-Central Excise dt.01/03/1997.
19. **Backup services** etc. are to be specified separately.
20. Along with quotations, the list of clients to whom the company has supplied those equipments should preferably be given which may help us to select the equipment.
21. The undersigned reserves the right to accept or reject any tender including the lowest one without assigning any reasons thereof.
22. **Terms of Delivery:** - Equipment shall be delivered at College of Fisheries, CAU, Lembucherra, Agartala, Tripura – 799210 within 45 (forty-five) days of receiving the supply order.
23. **Training:- Training is to be provided by the supplier after successful installation of the equipment in the College of Fisheries at free of cost by the supplier, if necessary.**

  
23.1.14  
Dean.

## TENDER FORM

To

The Dean  
College of Fisheries (CAU)  
Lembucherra , P.Box No.60  
Agartala,Tripura(W) - 799001 India.

I/We namely \_\_\_\_\_ manufacturer/authorized Indian agent/ dealer for manufacturer/supplier of \_\_\_\_\_ having my/our office at \_\_\_\_\_ hereby offer my/our rates for the supply, installation and demonstration of the equipment in schedule annexed herewith. I/We agree to supply the equipment for a total contract price of Rs. \_\_\_\_\_ thers (specify) \_\_\_\_\_ (in words \_\_\_\_\_), within the period specified. I/We also confirm that the normal commercial warrantee/guarantee of \_\_\_\_\_ months shall apply to the equipments for which rates are quoted.

I/we also confirm hereby my/our acceptance to the terms and conditions of the tender. A copy of the Tender notice and terms and conditions thereof is enclosed herewith duly authenticated under our seal and signature.

We agree to supply the equipments quoted in accordance with the specifications and for the total contract price of Rs. \_\_\_\_\_ (Amount in figures) (Rs. \_\_\_\_\_) (amount in words) within the period specified in the invitation of tenders.

Thanking you

Sl. No	Name of the Equipment	Specifications	Qty	Unit Price (Rate in Rs)	Total Price (inclusive of taxes etc.)

Place:

Date:

Signature of the Supplier  
With office seal

**FORMAT OF TENDER**

Gross total:

We agree to supply the above equipments/goods in accordance with the specifications for the total contract price of Rs.....(amount in figures) (Rupees.....  
.....) only with in the period specified in the invitation of tenders.

Signature of the Supplier  
With Seal and date.

**Specification of Equipments for Procurement of Scientific Instruments.**

Sr. no.	Name of Instrument	specification	Quantity
1	Upright transmitted light Brightfield and Reflected light Fluorescence research microscope	<p>Upright transmitted light Brightfield and Reflected light Fluorescence research microscope– with transmitted light 100W halogen illumination, with stage carrier, with centrable condenser holder for vertical adjustment, right- and left-hand operation and clamp screw, with adjustable height stop, Mains 90-250V, commutable 50/60 Hz. Contrasting technique: TL – Brightfield / RL – Fluorescence, Infinity corrected and Harmonic Compensated (HC) Optical System, X/Y stage control for ergostages with removable rubber covers – there should be provision for operating the mechanical stage either for right hand operation or for left hand operation, TL Filtermagazine with DLF (day light conversion filter), grey filter N16 and panchromatic green filter, TL Filtermagazine with DLF (day light conversion filter), grey filter N16 and panchromatic green filter, Trinocular Pol Phototube, with tubelens<math>\infty</math>/1x, with 30° viewing angle, with interpupillary adjustment 55-75mm, with constant focus and automatic adjustment of right eyepiece/graticule.3 beamsplitter positions vis/phot:0/100%; 50/50%;100/0%, dedicated objectives 10x/0.25and 100x/1.25 (oil) for cytogenetics applications, Filter system for Blue (DAPI), green (FITC), red (Rhodamine) and UV excitation, Full metal Fluorescence Illuminator - with 5-position filter cube turret, with centerable aperture and field diaphragms, with 3 switchable neutral filters N2, N4 and N16 for intensity reduction, and light stop. Supply with Fully Integrated Karyotyping &amp; FISH capture station consisting of: High Sensitive monochrome camera - 2/3" monochrome progressive scan, 1380 x 1030 pixels, 24 frames/sec., 6.45 <math>\mu</math>m square pixels, Configuration via serial interface, Camera Link interface. Karyotyping &amp; FISH capture station with High Performance Dell PC with 24" TFT LCD Monitor with fully calibrated and tested software along with license for Karyotype, FISH, Spot counting and Karyotyping (non-human).</p>	1 nos
2	PCR cabinet	<ol style="list-style-type: none"> <li>1) Greater protection against contamination from the ambient environment and crosscontamination within the main chamber</li> <li>2) High quality Polyester Pre-Filter and main HEPA Filter with a typical efficiency of</li> <li>3) &gt;99.99% at 0.3 microns</li> <li>4) Built-in UV lamp with timer to facilitate decontamination in between PCR cycles.</li> <li>5) Sentinel™ Microprocessor controller supervises all functions.</li> <li>6) Antimicrobial coating on all painted surfaces minimizes contamination</li> <li>7) The ergonomically designed sloped front and side glass walls provide a high level of</li> <li>8) visibility into the work zone.</li> <li>9) A double flap safety cover, constructed of 5mm (0.2")</li> </ol>	1 nos

		<p>UV-absorbing beta radiation</p> <ol style="list-style-type: none"> <li>10) resistant polycarbonate, provides superior operator protection while allowing easy access to</li> <li>11) work zone.</li> <li>12) The UV lamp is placed out of operator's direct line of sight, providing maximum operator</li> <li>13) comfort and safety.</li> <li>14) A reliable interlock safety system prevents the activation of UV Lamp unless the safety</li> <li>15) cover is closed. The lamp will be deactivated if the cover is opened.</li> <li>16) An improved mini-pleat separation technique maximizes filter surface area, improving</li> <li>17) efficiency and extending the life of filter.</li> <li>18) Mini-pleat separatorless HEPA filter technology operates at a typical efficiency of &gt;</li> <li>19) 99.99% at 0.3 microns.</li> <li>20) Password protected administration can be set to restrict access to main menu.</li> <li>21) This cabinet provide ISO Class4 air cleanliness within the work zone ( as per ISO 14644.1,</li> <li>22) equivalent to Class10 as per US Federal Standard 209E)</li> <li>23) An additional Pre-Filter traps larger particles, prolonging the life of the main filter.</li> <li>24) Audible/Visual alarm ensure product/sample protection by alerting user in the event of low</li> <li>25) airflow.</li> <li>26) The control unit monitors the performance and usages hours of UV Lamp, pre-filter and</li> <li>27) main filter, alerting user when a replacement is required.</li> <li>28) The cabinet main body is constructed of industrial grade electrogalvanized steel and is</li> <li>29) superior to the less durable plastic constructed cabinets offered by the competition</li> <li>30) External surfaces are coated with Esco ISOCIDE™ antimicrobial coating to protect</li> <li>31) against surface contamination an inhibit bacterial growth bacterial</li> <li>32) The system incorporate permanently lubricated direct drive centrifugal blowers.</li> <li>33) An energy efficient external rotor motor design reduces operating costs and has extremely</li> <li>34) low noise and vibration levels.</li> <li>35) Support stand with Caster Wheels for easy movement of cabinet.</li> <li>36) External Dimensions: 1035 x 617 x 950 mm / 40.7"x24.3"x 37.4"[ L x W x H]</li> <li>37) Internal Work Zone: 935 X 538 X 550 mm / 36.8" x 21.2" x 21.7"[ L x W x H]</li> <li>38) Laminar Airflow velocity : 0.30 m/s</li> <li>39) Noise level: &lt; 53 dBA</li> <li>40) Light intensity : &gt; 975 Lux</li> <li>41) Standard Compliance: Individually performance tested and certified at factory under control conditions for :</li> </ol>	
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		<p>42) Pre-filter: Washable polyurethane fibres With 85% arrestance</p> <p>43) Support Stand with caster wheels for easy movement</p>	
3	Shaking incubator	<p>Drive: Unicentric heavy duty conunter balanced drive with DC brushless motors and permanently lubricated ball bearings Capable of calibrating temperature and speed via keypad, Temperature range is +7o C above ambient to 60 o C, Temperature uniformity : +/-0.5 o C at 37 o C, Orbit : 1.9cm, Speed: 50 – 400 RPM, Platform Size : 46 cm x 46 cm , Large easily seen LED display, Clamps for flasks of 500 ml, 250 ml, 100 ml and 50 ml, Timer: Enables programmable shaking periods from 0.1 hr to 99.9 hrs.RS232 for data logging. Certifications: Meets UL, CSA &amp; CE standards. <b>Two years warranty.</b></p>	1 nos.
4	Hot water bath	<p>Three chambered water bath, Capacity: (3 x 11Liter). Dimension-Outer (302×240×150×3 baths), Inner (969 x 450 x 350). Temp. Range: Ambient +5°C to 100°C. Accuracy: ±0.1°C. Uniformity: ±1.0°C with Individual Control of each Chamber – Temperature and Time. Digital PID controller for each chamber. Dom shaped lid with handle, Jog-Shuttle Control Switch and LED 4 Digital display, Seamless Stainless Steel Bath chambers powder coated steel. Over Temperature &amp; Over Current Protection, Sensor Error Detection, Leakage Breaking, Digital Timer Function (99hr 59min), Delay and Operation Time control, Alarm for Error Status and Timer-end. 1-2 year warranty</p>	2 nos.
5	Refrigerator 4 deg	<p>Double solid door, 1<sup>0</sup>C to 10<sup>0</sup> C vertical freezer, 270 Ltr capacity, Defrost: NA, minimum 4 shelf + drawers, Wheel: yes, Lock: yes, Stabiliser in built/ has to be included separately. 1-2 year warranty</p>	4 nos
6	Micropipettes	<p>Adjustable variable volume, single channel micro-pipettes with following volume range: (1) 0.1 µl-2.5 µl l, (2) 0.5 µl – 10.0 µl, (3) 20.0 µl -200 µl, (4) 10.0 µl -100 µl, (5) 100 µl - 1000 µl and improved ergonomics. Fully autoclavable, one button operation for aspiration, dispensing and tip ejection, different color indication on different volume pipettes, ultra light piston system made of forton, adjusted volume can be automatically locked, Chemically resistant, 4 digit volume display, 3 years warranty</p>	2 set
7	Digital pH meter	<p>Up to 3 decimal place resolution, 1, 2 or 3 point pH calibration, Automatic or manual buffer selection, Storage of up to 500 results, RS232 connection to printer or PC or infra red (IrDA) communication, GLP compliant, Range -2.000 to +20.000; Resolution 0.001 / 0.01 / 0.1; Accuracy ±0.003, Calibration User selectable 1, 2 or 3 point, Automatic buffer recognition (2.00, 4.00, 7.00, 9.20 and 10.00), DIN, NIST, JIS mV Range ±1999.9mV, Resolution 0.1/1mV, Accuracy ±0.2mV, Temperature Range -10 to 105°C, Resolution 0.1°C, Accuracy ±0.5°C, ATC and manual temperature 0 to 100°C, correction Alarm points -2.000 to 19.999pH, GLP Calibration reminder interval (1 to 999hrs) Alarm outputs (open collector and audible). Security code protected data.</p>	2 nos
8	Cryo can	<p>11 lit. , 25 lit. and 50 lit. capacity insulated Cryogenic Tanks For Storage &amp; Transport Of Compressed &amp; Liquified nitrogen gas, as well as for long term preservation of tissue, cell and sperm samples. Can must supplied with other accessories and 1-2 years waranty.</p>	2 each
9	Horizontal Electrophoresis with power pack	<p><b>Mini Horizontal submarine Nucleic Acid Electrophoresis unit</b> Coolant-insulated buffer chamber, three 7x10cm UV</p>	2 set

		<p>transparent, leak-proof gel casting tray and three gel running tray with 8 Comb back with 2 screws, 8 foam gasket, 1 electrode replacement kit, comb with following WxT: (1) two 8-well Comb, 6.5 × 1.5 mm (W × T), (2) two 12-well Comb, 3.9 × 1.5 mm (W × T) (3) two 16-well Comb, 2.6 × 1.5 mm (W × T).</p> <p><b>Power Supply Unit</b>  1 power supply with capacity of 300 V, 400 mA, 80 W with constant voltage and constant current modes with automatic crossover, Single-unit increments in settings and read-outs for precision and reproducibility, Suitable for submarine, mini-vertical, and standard vertical gel electrophoresis as well as semidry and mini-tank blotting applications, Power outlet: Two pairs for duplicate parallel runs, Programmable Output range: 10 – 300V, fully adjustable in 1V steps, 4 – 400mA, fully adjustable in 1mA steps; Maximum Power: 80 W, Output Type: CV or CC with automatic crossover facility, Built-in timer range – 0 – 999min, fully adjustable, digital display, Automatic recovery after power failure. 2 years warranty</p>	
10	Shaker/Rocker	<p>Double tier rocker with electronic tilt adjustment, platform dimension: 8.75 W X 11.75D, timer: 1 min to 9999 min, precise speed and rocking, two individual LED display for each platform, alarm for overload, unbalancing, platform obstruction and timer end, dimpled mate. . 1-2 year warranty.</p>	1 nos
11	Trinocular Stereo Zoom Microscope with TL & RL illumination with scientific Digital Camera	<p>Trinocular Stereo Zoom Microscope with TL &amp; RL illumination with scientific Digital Camera System with 6.3:1 zoom with magnification 6.3x-40x (10x eyepieces, no supplementary lens) – provides field of view up to 36.5mm for fast, accurate inspection, Greenough optical design - provides very flat (plan) field of view and large depth of field, 38° angle eye tube, for comfort and convenience 110 mm standard working distance, ensures excellent accessibility to the samples with, Coarse/fine focus drive, 500 mm, with side-faced column, cable channel. Transmitted light stage, 120 mm, for diffuse light conditions with 50 mm illuminated diameter, requires single flexible light guide, 500 mm. Resolution up to 216 lp/mm (1x supplementary lens, 10x eyepieces), maximum resolution up to 432 lp/mm (2x supplementary lens, 10x eyepieces), Adjustable zoom stops – inspection at specific magnification can be easily repeated, "ZeroStat" antistatic polymer microscope covers, Minimize risk of ESD (electrostatic discharge) of sensitive component. Large range of supplementary lenses as well eyepieces - adapt the optical performance to the application requirements. LED fiber optic light source fiber optic light source with single LED light engine, colour temperature approx. 5600K, brightness is equivalent to a 30-watt halogen cold light source, compact housing can be attached directly to microscope stands or is usable as stand-alone, continuous dimming (0-100 %) with separate on/off switch, convection cooling (no fan), wide-range power supply (100-240 V, 50-60 Hz) with international clip plug system with Double goose-neck light guide, 500 mm, Universal light guide mount, flexible mount to fit universal light guide. Objective achromat 0.63x, working distance 155 mm, 58 mm diameter, M52. Scientific Digital Camera (dedicated for microscopy use) &amp; SW Kit - colour digital camera for on-screen microscope image display, resolution</p>	1nos.

		(No. of pixels) 2048x1536, CMOS sensor progressive scan, pixel size 3.2 µm x 3.2 µm, colour filter RGB (Bayer), colour depth 30 bits, exposure time 0.1 msec- 2 sec, A/D converter 10 bit, dynamic range >45dB, full size live image, 15 frames per sec.. VGA, SVGA, XGA and XVGA image formats, gain 1x - 20x, shading correction, with Video objective 0.5x, c-mount interface for cameras with 1/2" sensors.	
12	Sturdy Hot air oven of precision temperature control	Structural: mild steel angle structure with proper welding joints. Chamber: top and bottom double walled. Inner wall made of stainless steel. Outer body wall should be made of mild steel sheet with good finish. Temp. Range: 50°c to 300°c. Temperature Control should be digital with temperature Indicator cum controller. Blower system should be provided for maintaining temperature uniformity. Power: 220/230 v or 440 volts. Capacity: 100 ltr. Shelves: minimum 2 nos. Minimum two years warranty should be provided.	2 nos.
13	Blood Auto Analyzer	The analyser should be Fully Automated with throughput >90 / >120 tests / hour without ISE. Parameters need to be estimated: 1. Enzymes: Amylase, Acidic Phosphatase, ALAT (GPT), Alkaline Phosphatase, ASAT (GOT), Cholinesterase, CK (NAC), CK-MB DS, GT, LDH, GLDH, Lipase 2. Substrates:Albumin, Bilirubin, Total (TBIL), Bilirubin, Direct (DBIL), Cholesterol, Creatinine, Glucose, HDL-Cholesterol, LDL-Cholesterol, Iron, Total Protein, Triglyceride, Urea, Uric Acid. 3. Electrolytes: Calcium (Ca), Magnesium (Mg). Electrolytes (ISE): Chloride (Cl), Potassium (K), Sodium (Na). Special Chemistries/ Special Proteines: C Reactive Protein, Lactate, ADA, IgM. N.B: Along with the instrument, kits will be required to carry out the estimation of each parameter for 100 times. Our samples will be from fishes. Minimum two years warranty should be provided.	1 nos.
14	Dark Field Microscope with camera	Microscope should have Infinity Corrected Optical system for Bright field & Dark Field-contrast applications. Microscope should have right hand stage Stand with Koehler Illumination, 4 Position Nosepiece, Universal Power Supply, mechanical stage with non-extending rack and slide holder, Long life LED illumination with Auto off facility, built in handle and cord wrap, Dust Cover, Manual. Binocular tube with 30° inclination for easy viewing. Magnification from 100x to 1000x with 10x eyepieces and PLAN Phase Objectives of 10x, 40x & 100x (oil). FOV should be 20mm. IPD should range from 52mm – 75mm. Abbe Condenser 0.9NA dry with relevant phase sliders. Should have integrated vertical handle for easy carrying and easy lifting with integrated cord wrap to eliminate damage to microscope components. Slide holder should be student friendly to avoid slide chipping. Should have transmitted LED illumination of 6000K temp., 25,000 hrs. life at full intensity - providing cool white light with a lifetime of at least 20 years for cost saving. Stage should maintain its dimension with round edges eliminating chance of injury with additional protection from friction damage. AgTreat (anti microbial) to be incorporated for eliminating growth of	1 nos.

		bacteria. Should have time delay shutoff automatically to save energy with disabled & enabled option also. 3 Megapixel HD Colour Digital Camera Module with USB and Analog outputs and software. The module to be fitted between the tube and stand only. Microscope and Camera & Software should be from the same manufacturer. One Branded computer/Laptop should be i Core processor and compatible to the microscope camera and software. Minimum two years warranty should be provided.	
15	Sonicator	Microprocessor-based, programmable ultrasonic Processor. Features should include pulse mode and a digital display of both wattage and joules. The unit should be effective for standard cell Disruption, DNA/RNA shearing, homogenization and many other applications. The sonicator should be able to handle very small (microlitre) as well as larger (litre) sample volume. Minimum two years warranty should be provided.	1 nos.
16	Western blot	The western blotting unit should be based on Dry blotting principle including all accessories required for the transfer of proteins such as gel transfer device, transfer stack (regular and mini) in both Nitrocellulose and PVDF, blotting roller, incubation tray. Minimum two years warranty should be provided.	1 nos.
17	Tissue homogenizer	High performance automatic tissue homogenizer with interchangeable probe, Stainless steel probe and easy to wash. Should be able to handle small to large sample volumes (0.25ml to 2L). Minimum two years warranty should be provided.	1 nos.
18	Solar dryer	The dryers should be efficient based on latest technologye based plates, capable of handling 100-500 kg /day of high moisture materials like duck weed/algae (moisture content >95%) with provision of easy loading and unloading of the biomass. It should be provided with digital displays of temperature and relative humidity at the dryer inlet and outlet. Provisions of air flow control, rust proof outer and inner bodies and trays.	2 nos.
19	Sample preparation Mill	CE certified from for rapid sample preparation for general laboratories analysis, having the following features: Grinding principle- Rotor Blade, Grinding rate/time-2 to 10 seconds, Sample size- Maximum 100 ml (50 to 150 g), Sample quality to be fed for grinding- High moisture, high fat and fibrous samples, Applications- Oilseeds, prepared foods, meat products, fruit, vegetables, grains, seeds & feed, Grinding speed- Blade 20000 rpm, Particle size- Depending sample & Safety- Microswitch. Minimum two years warranty should be provided.	1 nos.
20	Rotary Evaporator with accessories	Should contain Condenser (Vertical) Normal Glass, Drive Unit, Mechanical Quick-Action Jack, Insulated water bath with digital display. The rotation speed can be adjusted between 20 to 280 Rpm / min. The instrument can be used for 50ml....4000 ml evaporation flasks with 1 liter evaporating flask NS 29.2/32 and 1 liter receiving flask. The Vacuum Pump should be have chemical-resistant PTFE diaphragm for use in the laboratory with 2 stage pump with a flow rate of 1.8 m <sup>3</sup> /h and an ultimate vacuum of < 10 mbar. The pump should be optimally suited with suitable tubings to work with the evaporator. Silencer. It should also contain The Distillation	1 nos.

		Chiller to cool to a fixed temperature of 10°C, and is Pump capacity : 18 l/min. 0.6 bar; Cooling power : 500 W bei 15 oC. The system should be supplied with sufficient (3 or more) nos. of flasks as spare. Minimum two years warranty should be provided. Training of at least a week must be provided after installation by the company engineer with our samples.	
21	Nutrient auto analyzer	<p>The auto analyser for the following parameters simultaneously to be supplied FOR COF Tripura in Indian rupees</p> <p>Ammonia, Orthophosphate, Nitrate , Nitrite sequentially and Total Iron</p> <p><b>Operational Specifications</b></p> <p>All chemistries on the automated ion analyzer must operate on the principle of micro-bore Segmented Flow Analysis (SFA). SFA must be used for sample introduction and chemistry determination. The SFA system must allow for the simultaneous analysis of 4 tests from one sample. Samples shall be processed at rates up to 72+ samples per hour with baseline resolution to within one percent (1%) of full scale over a dynamic range of two orders of magnitude. The SFA software must run under Windows XP, 7 or 8, and must perform simultaneous instrument control, data acquisition and report generation. The system must be upgradeable to include Fluorometer, Flame Photometer and UV spectrophotometers as alternate, plug-in detectors. The SFA system should share peripheral components including sampler, dilutor and data collection system. The system must provide the corrected data in real-time. Automatic dilution with a precision dilutor must be available as an option for future purchase, The system must provide controlled heat baths for all heated methods. . The system software must provide power control of the lamps and pumps during automatic start-up, shutdown and/or other “time- events” functions. The system must include automatic leak detection hardware, providing an audible alarm if a leak is detected. The alarm must have an “override” button so that the operator can turn it no leak is found.</p> <p><b>Hardware Specifications</b></p> <p>The peristaltic micro pump, in-use analytical cartridges and digital detector must all be individual modules. The micro pump must have a leak detector and have kill switch that manually stops the pump. The detectors must include solid state silicone photodiodes with an operation range of 200 to 1200 nm for analytical ranges from 400nm – 880nm. The primary detectors, excluding “plug-in” detectors, must convert voltage directly to a digitized signal; no analog detectors, using analog to digital converters, will be allowed. The detector module’s light source from a single tungsten-halogen lamp must be split into multiple beams by the fiber optic bundles and directed to 1 - 4 photometers and one reference port. The light source will also be easily</p>	1 nos.

accessible (for replacement), without the removal of flow cell assemblies, filter holder assemblies and/or the required disassembly of the detector module. The light source will have a minimum operational life of 1000 hours before requiring replacement. Wavelength discrimination must occur after the flowcell with the fiber optics bringing the light energy directly to the 6 or 10 mm flowcell between the light source and the interference filter for optimum performance and stability. Flowcell will require no shielding. An easy upgrade to an optional 50mm Liquid Waveguide Capillary Cell (LWCC) must be available. The base module must have an outside mounted controller that regulates the temperature of the heat baths with a target temperature that is displayed and user selectable between 25°C and 125°C. The base module must have LED indicators that show whether power is being supplied to the analyzer. The system must be able to be configured to simultaneously measure up to 4 analytes using the built-in digital detectors and future upgrade to one (1) analyte using an optional analog detector (i.e. analog colorimeter, flame photometer or fluorometer). The digital system should be upgradable to a 6+1 configurations by the addition of a second detector module. The instrument must not utilize sample injection valves but sampler timing to determine sample to wash ratio. The optional use of sampler “pecking” will be available to the operator to further ensure sample separation. The SFA system must use a random access autosampler with a capacity up to 270 samples. The sampler must have the ability to customize individual cup size for each position with disposable 2 and 4 ml sample cups, test tubes or up to 4 microtiter trays. The sampler must have a separate standards rack that holds up to 20 – 28 calibrants or control samples. The autosampler must have built-in traveling wash cup, especially designed to insure consistency of inter-sample air bubble.

### **Chemistry Specifications**

All chemistry cartridges must have an input connector block for easy pump tube changes. All chemistry cartridges must use mixing coils made of glass with a maximum inside diameter (I.D.) of 1.0 mm. Air segmentation for all chemistry cartridges must be introduced via an Air Injection Module (AIM) which uses the micro pump for operation. Electronic air injectors, air bars, etc. are not permitted. All methods application sheets will include linearity, precision, accuracy and method detection limit data.

### **Software Specifications**

The software package must be able to process up to six (6) digital channels and one (1) analog channel simultaneously. For operation with a PC, the software package will not require interface cards for internal PC expansion slots; such use of expansion slots will not be

		<p>allowed. It must have the ability to be installed on either laptop or notebook PC. The software must allow the operator to view the calibration curve during the run and use default curves when no other curve is available for no calibration runs. The software must allow for up to 20 calibration points. The software must be capable of analyzing peak height to determine sample concentration with variable data collection rates. . The software must have flexible, visually applied user defined peak search parameters to ensure only valid peaks are found. Additionally, the operator will be able to move “peak markers” if a peak is marked incorrectly. The software must have data quality management plan integrated completely with the run and include: Upper and lower QC limits for each QC check standard, both relative and absolute User defined QC limits for out of range detection and operator option to prevent the automatic transfer of inaccurate data for any type of sample. Ability to run QC samples on blanks, knowns, checks, duplicates, spikes and spike duplicates for each sample. Suitable PC Printer should be supplied from the local source, Should mention about installation commissioning, &amp; Training.</p>	
22	Storage Silo for feed/ ingredients storage	<p>Size: 2.5m dia x 1.5m height. Vol: 6500ltrs. Made of stainless steel and fabricated cylindrical in shape with a tapering bottom. Provided with an outlet gate for bagging of feeds. Inlet is provided at the top for entry of feed into the silo and a MS stand. There should be provision for loading from the top through air conveyor any suitable mechanism so as to load the pellets in the storage silo.</p>	1 nos.
23	Multi-probe water quality meters	<p>The Multiparameter Water Quality Monitoring System should have provision to interface with the following sensors to measure them simultaneously. Temperature, Conductivity, Dissolved Oxygen, pH, ORP, Depth, Turbidity, Chlorophyll. Operating Environment Medium: fresh, sea, or polluted water, Temperature: -5 to +50 °C for most sensors, Depth: 0 to 656 feet (200 meters), Storage Temperature: -40 to +60 °C for sonde and sensors, Material: PVC, Stainless Steel, sonde Cable: 20 feet, Computer Interface: RS-232C, SDI-12, Internal logging memory size: 384 kilobytes (150,000 individual parameter readings), Power: 8 C-size Alkaline Batteries or External 12 VDC, Battery Life: Approximately 75 days at 20 C at a 15 minute logging interval, and temperature, conductivity, pH/ORP, Rapid Pulse DO with a 60-second DO warm up time, and two optical probes, Calibration solutions for all the supplied sensors should be quoted with the instrument.</p> <p><b>Depth</b>  Sensor Type.....Stainless steel strain gauge  Range.....&gt;10 m  Accuracy.....+/- 0.4 ft (0.12 m)  Resolution.....0.001 ft (0.001 m)  Temperature Range -5 to 45 C</p>	1 nos.

**Temperature**

Sensor Type.....Thermistor

Range.....-5 to 50 °C

Accuracy.....+/- 0.15 °C

Resolution.....0.01 °C

**Dissolved Oxygen, % saturation**

Sensor Type.....Rapid Pulse - Clark type, polarographic

Range.....0 to 500 % air saturation

Accuracy.....0-200 % air saturation, +/- 2 % of the reading or 2 % air saturation, whichever is greater

200-500 % air saturation, +/- 6 % of reading

Resolution.....0.1 % air saturation

Temperature Range -5 to 50 C

Rapid Pulse Dissolved Oxygen, mg/L (Calculated from % air saturation, temperature and salinity)

**pH**

Sensor Type.....Glass combination electrode

Range.....0 to 14 units

Accuracy.....+/- 0.2 units

Resolution.....0.01 units

Temperature Range -5 to 50 C

**ORP**

Sensor type..... Platinum button

Range.....-999 to +999 mV

Accuracy.....+/-20 mV in redox standard solutions

Resolution.....0.1 mV

Temperature Range -5 to 60 C

**Turbidity**

Sensor type..... Optical, 90 ° scatter, with mechanical cleaning

Range..... 0 to 1000 NTU

Accuracy.....+/- 2% of the reading or 0.3 NTU (whichever is greater), in YSI AMCO-AEPA standards

Resolution.....0.1 NTU

Temperature Range -5 to 50 C

**Chlorophyll**

Sensor type..... Optical, fluorescence, with mechanical cleaning

Range..... Approximately 0 to 400 µg/L Chl; 0-100 Relative Fluorescence Units (RFU)

Accuracy..... No specification provided

Linearity..... R2 > 0.9999 for serial dilution of Rhodamine WT solution from 0 to 500 ug/L

Detection Limit.....Approximately 0.1 ug/L Chl (determined using cultures of Isochrysis sp. and chlorophyll a concentration determined through extractions).

Resolution.....0.1 µg/L Chl; 0.1 RFU

Temperature Range -5 to 50 C

**Conductivity**

Sensor Type.....4 electrode cell with auto ranging

Range.....0 to 100 mS/cm

Accuracy.....+/- 0.5% of reading + 0.001 mS/cm

Resolution.....0.001 mS/cm to 0.1 mS/cm (range dependent)

Temperature Range -5 to 60 C



		<p>The system should report outputs of specific conductance (conductivity corrected to 25 C), resistivity, and total dissolved solids. The System should be supplied with laptop of suitable configuration with Windows compatible software for programming, downloading the data and deployment of the instrument. The instrument should be quoted with portable field display and keypad with the following minimum specifications: Resistance to Water Leakage: Should be IP 67, Display: ¼ VGA; LCD with 320 by 240 pixels with backlight, Connector: MS-8; Meets IP 67 specification, Standard Battery Configuration: 4 Alkaline C Cells with detached battery cover, Battery: Re-chargeable, at least 3-4 hours of continuous operation in the field after full recharge.</p> <p>Communication Protocol: RS-232 to all sondes and for data transfer to PC and for software updates, GPS via Y-cable – NMEA 0183, Standard Backlight Feature: 4 LEDs illuminating LCD.</p> <p>Keyboard: Keys including Meter On/Off, Backlight On/Off, Enter, Escape, 10 Number/Letter Entry Keys, 2 Vertical arrow keys, 2 Horizontal arrow keys, 1 minus/hyphen entry key, 1 decimal point/period.</p> <p>Adequate training/demonstration of at least 4-5 days in field is must. At least two sets of consumables including membranes, electrolytes, buffer etc. As may be applicable must be provided. An extended warranty of two years and</p>	
24	Spectrofluorometer	<p>PC controlled system for fluorescence, phosphorescence and luminescence measurements with life time measurement facility without any special accessory.</p> <p>Wavelength range-200 – 750 nm (for both excitation as well as emission) (expandable up to 900 nm with optional detector), Spectral bandwidth- Excitation side : 1, 2.5, 5,10 &amp; 20 nm &amp; Emission side: 1, 2.5, 5, 10 &amp; 20 nm,</p> <p>Wavelength accuracy : ±1 nm,</p> <p>Wavelength repeatability : 0.2 nm</p> <p>Wavelength readability : 0.1 nm</p> <p>Detector: Photomultiplier tube (PMT) (Standard);</p> <p>Light source : 150 W ozone free Xe lamp</p> <p>Wavelength Scan speed : 30, 60, 240,1200, 2400,12000,30000 &amp; 60,000 nm/min</p> <p>Monochromator : Stigmatic concave diffraction grating</p> <p>Sensitivity : S/N ratio of 800 (RMS) for the Raman lines of distilled water (350 nm excitation wavelength, 5 nm spectral bandwidth, and 2 second response)</p> <p>Minimum sample volume: 0.6 ml (with standard 10 mm rectangular cell)</p> <p>Photometric Principle: Monochromatic light monitoring ratio calculation</p> <p>Resolution: 1.0 nm</p> <p>Wavelength drive speed: 60000 nm/min</p> <p>Response: Response from 0 to 98%, Selectable from 0.004, 0.01, 0.05, 0.1, 0.5, 2, 4 &amp; 8 sec, Photometric value range: -9999 to +9999, Data processing unit: PC</p> <p>Interface: USB interface for communication with the computer. Standard Software: Latest Windows based capable of Date processing features such as quantitative analysis,</p>	1 nos.


		wavelength scan measurement, time based measurement such as phosphorescence life time, 3-D measurements, Data export to Microsoft Excel, Print preview etc. Branded computer with suitable interface and software and two quartz cuvetts should be supplied. Adequate training (at least one week) on application with samples of our choice should be provided. Warranty of two years should be provided.	
25	Air Compressor with Temperature Control	Air receiver tank 500 L, Instant heater fitting for air temperature 35 <sup>0</sup> to 45 <sup>0</sup> C & Line filter (Carbon filter). Rotary Screw Element complete with dry paper type suction air filter with silencer, Integrated regulating valve for load/unload control system, Air /Oil temperature sensor, Air Oil Receiver Tank, Motor- 20 (15) HP (kW), Induction motor with insulation, suitable for 40 <sup>0</sup> C ambient temperature. Warranty of two years should be provided.	1 nos.
26	Reverse Osmosis (RO) System	Water treatment system (RO system)-water flow rate 300-500 L/h, consisting of Sand filter, carbon filter (flow 1200 LPH, FRP made, vertical type), anti scaling dosing system (Electronic diaphragm type), micro cartridge filter (20 & 5 micron), high pressure pump (2 hp), ultra violet system (capacity 500 LPH), electronic control panel with meter, voltmeter & indicators, on off switch, work continuously for 10-12 hrs per day.	1 nos.
27	Oxygen cylinder(filled)	with regulator kids, key, pipes and other accessories with standard specifications 50 cft, 110 cft and 200 cft capacity	1 each
28	Power generator (5KV)	Air cooled diesel engine , developing 10 BHP @ 1500 rpm, electric start, compression ignition, 4 stroke ISO standard complying CPCB norms comprising starter motor, Fuel pump with mechanical Governor, Dry type air cleaner, residential silencer, Battery charging alternator, Gen set controller etc.	1 nos.
29	Fish breeding equipments, net	<p><b>1. Nets of different mesh size</b></p> <p><b>i.Nylon Drag Net</b> Mesh- 1.25 cm, 210D/2/3 Size- 15mX 6 m with head and foot pp rope and float others accessories</p> <p><b>ii.Nylon Drag Net</b> Mesh- 2.5 cm, 210D/4/3 Size- 15mX 6 m with head and foot pp rope and float others accessories</p> <p><b>iii. Nylon Fry Drag Net</b> Mesh- 1/16 " (6mm) Size- 15mX 6 m with head and foot pp rope and float others accessories</p> <p><b>iv. Nylon Fingerling Drag Net</b> Mesh- 1/8"(10-12 mm) Size- 15mX 6 m with head and foot pp rope and float others accessories</p> <p><b>v. Nylon chat Jal (Net)</b> Size- 15mX 6 m with head and foot pp rope and float others accessories</p> <p><b>vi. Conditioning Hapa( Nylon made)</b> 5mX 3mX 1m, 3mX2mX 1m complete</p> <p><b>vii. Outer Hapa( Cotton made)</b></p>	2 each

		<p>Fine mesh good quality markin cloth, 2mX 1m X 1m complete ( Sample to be provided along with quotation)</p> <p>2. <b>Breeding equipment and other accessories includes</b> Hand net, Tissue homogenizer, cushion, centrifuge, syringe, needle, glass jar, tubes, balance etc.</p>	
30	<b>Pond liner</b>	Durable synthetic materials of any type that are resistant to be damaged under field conditions/solar radiation. Should be thick enough and sturdy to last for multiple (3-4) years.	2000 sq. m
31	Digital handy cam	<p><b>Digital Handycam:</b></p> <ul style="list-style-type: none"> <li>• CMOS sensor : for enhanced video capture in low light.</li> <li>• 8.9 Megapixels Still Picture</li> <li>• 30x Optical Zoom</li> <li>• 55x Extended Zoom</li> <li>• 29.8mm Wide Angle Sony G Lens</li> <li>• Built-in Projector</li> </ul>	4.nos
32	Underwater Camera:	<p><b>Underwater Camera:</b> 2", 25x zoom (5x optical plus 5x digital zoom), a 3" LCD display, a self-timer, 640x480 video mode with sound, and rubber armored housing for rugged shock protection. Compatible with SD and SDHC data cards up to 32GB.</p>	2 nos.
33	<b>Minor field equipments</b>	<p>1) <b>Field Binoculars:</b> mountain Binocs 10x50 mm Grossfeild 168ft /1000yds. coated lenses for cut glare and filter distortion-causing UV rays. Nitrogen-purged waterproof, fog-proof, shockproof construction with rubber armored body. Neck strap, lens covers and carry case included.</p> <p>2) <b>Water Flow Meter</b> Ideal for field use as well as for work in remote locations. telescopic probe 1.2 mt. with 2 mt. cable. Flow measurements <i>should be</i> taken in knots, km/h, mph, and m/s. The meter should take temperature measurements in either °F or °C, including minimum and maximum temperature and current temperature. The basic unit includes meter, foldable probe, standard flow sensor and carrying case. Also included is a wind speed impeller which allows you to take air velocity and wind chill measurements. To take flow measurements from a bridge or other elevated location, additional wire The unit shold automatically turns itself off after usage. Power: CR2032 Lithium battery (included). Backlight Display for proper viewing.</p> <p>3) <b>Lux Meter:</b> Features:</p> <ul style="list-style-type: none"> <li>• Three measurement ranges</li> <li>• Light sensor attached to 1.5 meter coaxial cable</li> <li>• Rugged, waterproof case</li> <li>• Low-battery indicator</li> </ul>	7 sets

		<p><b>Range</b> 0.001 to 1.999 Klux; 0.01 to 19.99 Klux; 0.1 to 199.9 Klux</p> <p><b>Resolution:</b> 0.001 Klux; 0.01 Klux; 0.1 Klux</p> <p><b>Accuracy</b> ±6% of reading ±2 digits</p> <p><b>Sensors</b> human-eye-response silicon photodiode with 1.5 m coaxial cable (fixed)</p> <p><b>Battery Type / Life</b> -9V / approximately 200 hours of continuous use; auto-off after 7 minutes of non-use</p> <p><b>Environment</b>-0 to 50°C (32 to 122°F); RH max 100%</p> <p><b>Dimensions</b>-164 x 76 x 45 mm (6.5 x 3.0 x 1.8")</p> <p><b>Weight</b>-180 g (6.3 oz.).</p> <p>4) <b>Ice Box:</b> Insulated Ice Box, made from FDA approved PE, Thick PUF Insulation, UV Stabalized, Durable, Hygenic and designed for long cooling effect.</p> <p>Capacity 50 litres, Capacity 70 litres</p>	
34	<b>Scale Reader</b>	<p><b>Scale Reader - with Measurement Method: Digital Readout System</b> (Bench Top type with Dual Illumination): Configuration: Vertical Light Path, Front Vertical Screen – Bench Model Screen: Antiglare Hard Glass Screen, 300 mm with cross hair with Rotable through 360 degrees Least count 1 minute of an arc. Magnification: Profar 10x, Mangnar 20x, Magnar 100x Multi layerd coated Focussing: 100mm Projection Accuracy: Contour +/- 0.05%, Surface: +/- 0.075% Illumination: Contour: 24V/150W halogen lamp with illumination control. Illumination: Surface: A set of 24V/150W halogen lamp with illumination control. Measurement Method: Digital Read Out.</p> <p>Standard Features One link measurement for Point, Line, Arc, Circle, Distance, Angle etc, LCD Graphics &amp; DRO Display, Inch/mm results</p> <ul style="list-style-type: none"> <li>• 2-D Construction Capabilities, Fully Programmable, Auto part alignment and skewing, Measure Magic, 15 types of tolerance setting, Point cloud data, Automatic feature recognition.</li> <li>• Print the result output, Data transfer to PC, LEC/SLEC error correction</li> </ul> <p>Complete as SP-300 with three objectives 10X, 20X &amp; 100X with Workstage 250 x 250 mm, Travel 100 x 100 mm, Scales having L.C. 5 Micron with Calibration Certificate traceability to N.P.L</p>	2 nos.

35	Field data processor	<p>Intel Core i5, 3.2 GHz, 6 MB L3 Cache, Intel OEM Motherboard, Integrated Graphics, 2 PCI, 1 PCI Express x 1 and 1 PCI Express x 16, 4 GB 1333 MHz DDR3 RAM 8 GB Expandability, 320 GB or above 7200 rpm SATA HDD, 18.5" TFT Monitor, Multimedia, Keyboard Optical Mouse, 4 Bays, 6 USB Ports, 16X DVD RW Drive, 10/100/1000 Network Card,</p> <p>Windows 7 Professional with license 3 Years Onsite Warranty</p> <p>Only MNC Brand(HP, Compaq, DELL, Acer, HCL) having local service provider.</p> <p><b>Printer</b> One Laserjet all in one (Print+Scan+Copy+Fax).</p> <p><b>UPS</b> Output Power Capacity -360 Watts / 600 VA UPS Nominal Output Voltage-230V Output Frequency (sync to mains)-50 Hz Waveform Type -Stepped approximation to a sinewave Output Connections - (3) India 3-pin 6A (Battery Backup) Nominal Input Voltage - 230V Input Frequency - 50 Hz Input Connections - India 3-pin 6A</p> <p>Battery Type - Maintenance-free sealed Lead-Acid battery with suspended electrolyte leakproof Typical recharge time - 10 hour(s) Battery Type - 7.5AH Maintenance-free, sealed lead-acid Standard Warranty - 2 years repair or replace including Battery</p>	10 nos
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\*Quantity may increase or decrease at the time of purchase.

  
 Dean,  
 College of Fisheries,  
 Lembucherra, Agartala,  
 Tripura.