



University of Calcutta

87/1, College Street, Kolkata-700 073

Tender Ref. No: ENVS/ DST-SEED/Sundarban/2025/Instr

Dated: 31/07/2025

The University of Calcutta invites e-tenders for the following work from experienced & bonafide firms/ organizations having credential of similar nature of work in any Government/ Semi-Govt./State Aided University/Autonomous Govt. aided Institution.

Name of work: Supplying, installation and commissioning of following ITEMS for the DST-SEED Project, Environmental Science Department, Ballygunge Science College Campus, University of Calcutta.

Name of the Item	Bid Validity Days	Time of completion of work	Earnest Money (EMD) Rs.	Name of the Concerned Department
1. Digital Hotplate Stirrer, : Benchmark Sc :Model : H3710-HS or Equivalent	180 days	60 days	80000 /- (To be deposited Online)	Environmental Science Department, Ballygunge Science College Campus, University of Calcutta.
2. Digital pH meter :Eutech : ph700 or Equivalent				
3. Vacuum Oven with Compact Rotary Vacuum Pumps :Ilabot&Ted pella or Equivalent				
4. Desiccator Vacuum with Pump : ASP make or Equivalent				
5. Digital Water Baths : Benchmark Sc : B2000-12 or Equivalent				
6. Centrifuge : Eppendorf make or Equivalent				
7. Digital Autoclave				

:Make :Equitron : #7440SLEFA or Equivalent 8. Bench top Conductivity / TDS Bench Meters. Make: Eutech Model: ECCON70043S or Equivalent 9. Digital Refractometer :ASP brand – ASP-R502 or Equivalent 10. Ice Making & Flaking Machine – ASP brand . ASPIC60 or Equivalent 11. Six Position Soxhlet Apparatus :ASP brand or Equivalent 12. Pellets Making Machine with Accessory : ASP or Equivalent 13. Multiparameter :Eutech : ECPCDWP65044K or Equivalent 14. Commercial Conventional Wet Grinder Capacity : 20 lit 15. Drier : Paul ScientrumentPSD3 50or Equivalent 16. Mixture Comercial :Capacity : 25 lit 17. Analytical Balance :WensarMake : or Equivalent				
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18. Two Lid Hard Top Chest Freezer (Deep freezer) Make: celfrost or Equivalent				
19. Honey Extractor : ASP or Equivalent				
20. Projector (BenQ Wxga) & Laptop (Dell) or Equivalent				
21. 12.5 kVA Kirloskar DG Set Generator or Equivalent				
22. 20 KVA voltage stabilizer				
23. DEWINTER 'ZOOMSTAR-IV PLUS' UPGRADED STEREOZOOM TRINOCULAR MICROSCOPE WITH 'DIGI-1000' USB 3 MICROSCOPIC CAMERA ATTACHMENT AND DIGICAM SOFTWARE or Equivalent				
24. Honey Feeling Machine				

- **Eligibility criteria for participation in the tender (up to date as on date):**

- The intending bidder must attach the photo-copies of all the relevant documents such as Valid Trade License , P.Tax, GST & Pan and credential for satisfactory completion of **similar nature of job amounting to 75% of the estimated value** in a single tender in the last three (03) financial years in Government, or Government Undertaking or any State Aided University. **Only completion certificate of the work will be considered as Credential of works.** Original documents(**up to date as on date**) may be asked for verification of technical checking on the date of tender opening. Failing to produce original documents, the tender will be rejected.

N.B: – Completion certificate should contain a) Name of work, b) Name and address of Client, c) Amount put to tender, d) Date of commencement of work e) Date of completion of work.

- II. The bidder must have credentials (only completion certificate is valid) of similar nature of work in State aided University/ State Govt. Departments/ semi-Govt. Departments. Failing which, the bidder will be rejected.
- III. The bidder must have a registered office in Kolkata or its surrounding districts in West Bengal. A copy of the address proof as per GST is to be submitted with the tender documents.
- BOQ for the respective work should be uploaded along with valid trade license, P.tax, PAN, GST & completion certificate for last 03 financial years etc. (up to date as on date) including above mentioned documents. **Failing which, the bidder will be rejected.**
 - **Consortium is not allowed and No Partial Quote will be accepted.**
 - **Time Extension:** Time is the essence of the contract, generally no time of extension will be allowed. But, in case of Force Majeure, the extension of time may be considered on the basis of actual situation and subject to consideration of the Tender Inviting Authority.
 - **Liquidated damage:** Liquidated damage will be charged to the contractor, if they fail to complete the work within the stipulated time as per contract @0.01% per day to a maximum limit of 10 % of the contract value .
 - **Defect & Liability Period:** The defect & liability period will be for a period of manufacturer guarantee from the date of completion of the job. Any defects pointed out during said period has to be mending good damages by the agency at their own cost failing which the retention money will be forfeited.
 - **No extra payment will be paid beyond the tendered amount.**
 - The Tender Inviting Authority reserves the right to accept or reject any tender without assigning any reasons.
 - The intending bidder must quote all items on the BOQ, failing which his/her tender, will be cancelled. The Bidder should inspect the site for the mentioned work before bidding of the tender. **The site will be laboratories at the Ballygunge Science College Campus, University of Calcutta and also at the mentioned work locality (Kumirmari Island, Sundarban).**

Bid Opening Place: - University of Calcutta at 87/1 College Street, Darbhanga Building, Ground Floor Kolkata-700073.

Technical Specifications

B.O.Q.

sl		Qty	Unit	Rate (Including all taxes) Rs.
1	Digital Hotplate Stirrer with Accessory - Benchmark Sc : Model : H3710-HS Should be Large 12*12 inch& white ceramic top plate Should be Maximum stirring capacity : 17-18 lit Should have Digital speed and temperature control Should have Safety LED indicates hot surface Should be Temp. Range 35°C to 590 °C Should be Speed Range : 150 to 2100 rpm Should be Platform Dimensions not more then 12*12 inch Should be Operating Temp. Range : 4 to +65°C Should be Small foot Print 11 x 16 x4 in. Weight Should be not more then : 7.5 kg Should be an external temperature probe can also be used for applications that require precise control of sample temperature. The probe provides direct feedback to the microprocessor with constant monitoring and adjustments for maintaining the selected temperature in the sample within +/- 1°C. All models are compatible with borosilicate glass beakers and other vessels up to 20 liters Warranty should be min 3 year	01	Each	
2	Digital Ph meter Eutech : ECPH70042S Instrument should be microprocessor-based benchtop pH meter which will be able to measure pH, mV, relative mV, and temperature. It should have the features of HOLD, selectable °F or °C measurement, recall of electrode slope and offset, and electrode diagnostics. 4. Range (pH): -2.00 to 16.00 5. Range (mV): ± 2000 mv 6. Range (Temperature °C): 0 to 100 7. Resolution (pH): 0.01; Resolution (Temperature): 0.1 8. Accuracy (Temperature): ±0.3°C; Accuracy (pH): ±0.01 pH or better 9. Temperature compensation: Automatic or manual 10. Display: LCD; Power: 230-240 VAC, 50/60 Hz 11. Buffer recognition: USA, NIST 12. Calibration: Up to 6 points 13. Data logging (points): 100 or better 14. Instrument must have CE Compliance 15. At least 3 sets of standard buffers should be provided for calibration. 16. Warranty: 3 years 17. 1 kva Servo control stabilizer	01	Each	

3	Vacuum Oven with Compact Rotary Vacuum Pumps : Ilabot& Ted pella Vacuum Oven for Extracting Moisture from Heat Sensitive items Should be Round model Should be Working Chamber Size (WXDXH) : 8*10 “ Should be Temperature : Ambient+10°C to 150°C Should be Accuracy : ±0.5°C Inner Chamber: Inner Chamber is constructed with Thick stainless steel 316 Outer Chamber: Outer Chamber of vacuum Oven is made from mild steel sheet pre greased, pretreated and powder coated for rust proofing. Door: Door has a thick tempered toughen glass window perfectly sealed with silicone rubber gasket for observation without disturbing thermal condition. Proper door alignment to ensure excellent vacuum performance & operate safety secure door latch and continuous silicon gasket on vacuum chamber provide a tight seal & maintain a vacuum leak rate of less than 1 Hg. per 24 hour period. Insulation: There is 75mm glass wool insulation between the chambers to prevent heat loss. Heaters: ISI marked heaters fitted at 3 sides Temperature Controller: Digital temp indicator cum controller helps in controlling the temperature. Temperature range: ambient to 250 degree C Maximum Vacuum: up to 820 mm of mercury, Digital Vacuum Indicator with LED Display Resolution: 1 mm Hg Accuracy: ± 1 mm Hg Temperature resistant: toughened glass observation window on the door Vacuum gauge: with vacuum release valve and nozzle Electrically operated: 230 V/50Hz AC Air Circulation: circulated by ISI mark silicon winded motors which are connected to balanced blowers. Vacuum gauge: with release valve & nozzle with maximum pressure 750mm Hg Should be made according to ASTM and CE standards for excellent safety and efficiency & UPSA Should be provide imported Compatible Vacuum pump oil free VE115	01	Each	
4	Desiccator with Vacuum System – Tedpella For removal of air bubbles from the epoxy resin mixture, providing enhanced bonding and embedding quality. The PELCO® "Air-Out" Vacuum system comprises the 2246-1 large, clear Polycarbonate Desiccator; the 3436 or 3436-200 oil-free Diaphragm Pump and 4 ft. Silicone Vacuum Hose. The large, clear desiccator allows for monitoring the air from the embedding epoxy. The large 9" plate provides room for a large number of samples for simultaneous out gassing Flange O.D. : 10-3/4 inch Inside Diameter : 9-7/16 inch	01	Each	

	Plate Diameter : 9 inch Overall Height : 12-1/8 inch Maximum Clearance above plate			
5	MyBath Circulating water baths – Benchmark USA-B2000-12 Should be Constant water circulation, Should be ensures even temperature distribution Should be Digital PID processing for precise temperature control Should be Stainless steel chamber and coil Should be Ambient +5° to 100°C Should have Stainless steel Chamber and Circulating Coil Should be Temperature Range: Ambient +5° to 100°C Should be Temperature Stability: +/- 0.2°C Temperature Uniformity: +/- 0.1°C External Footprint should not exceed Exterior (WxDxH) : 21.2 x 13.4 x 11.9 in Power Consumption Should be : 1200W Warranty Should be 2 Years water temperature is uniform throughout the chamber, eliminating “cold-spots” and allowing for quick recovery following insertion of frozen samples Should have CE, ANA ,ISO certification mended	01	Each	
6	Centrifuge with Accessory : Eppendorf/Others ➤ Max Speed: 18500rpm ➤ Max. RCF : 23990×g ➤ Time range : 1~99H59min ➤ Lowest Temp: Ambient ➤ Acc/Dec : 10 Kinds ➤ Max Capacity: 4×250ml ➤ Noise : <58dBA ➤ Buffer Sets USA (1.68, 4.01, 7.00, 10.01, 12.45 ➤ Certificate : CE, ISO & Calibration report are available ➤ Swing Rotor : 4×4×15 ➤ Microplate (Frame Type) : 2×3×96 well ➤ Rotor identification: Automatic identification temperature accuracy: ±1°C	01	Each	
7	Digital Autoclave : Make : Equitron : # #7441SLEFA 1. Instruments should have automatic purging for efficient sterilization. 2. Instrument must have preset (at 121°C) digital temperature indicator or microcontroller linked to a preset timer of 20 min. 3. Instruments should have low water level cutoff technology. 4. Instrument must be fitted with a Safety Valve/Fusible Safety Plug for added safety. 5. Must have End of cycle (Buzzer) signal of completion of sterilization cycle after set time is over. 6. Instruments should be supplied with traceable certificate for Pressure Gauge and temperature Indicator.	01	Each	

	7. Instruments should have CE Certification 8. Instrument must have buzzer indicator system for completion of sterilization 9. Must include Sterilization kit 10. Capacity: 75 lit Should be Compatible stabilizer			
8	Conductivity Meter and TDS with ATC Prob : Eutech - ECCON70043S Large Display - Screen displays Conductivity or TDS readings with Temperature in °C or °F Measurement Stability - Ready indicator lets you know when readings are stable Flexible Probe Options - Selectable cell constant Auto-ranging - Automatic ranging across 5 Conductivity and TDS ranges Multi-point Calibration - Up to 5-point push button calibration Data Storage - Non-volatile memory holds up to 100 data points Built-in Convenience - Integral electrode holder Conductivity Range: µS to 200.0 mS Resolution 0.01 / 0.1 / 1 µS ; 0.01 / 0.1 mS Accuracy ±1 % full scale Calibration Points Up to 5 Cell Constant 0.1, 1.0, 10.0 (selectable) TDS Range 0 to 100.0 ppt @ 0.5 factor (200.0 @ 1 factor) Resolution 0.01 / 0.1 / 1 ppm ; 0.01 / 0.1 ppt Accuracy ±1 % full scale Calibration Points Manual (5 points); maximum 1 per range Temperature Range (Meter) 0.0 to 100.0 °C / 32.0 to 212.0 °F Resolution 0.1 °C / 0.1 °F Accuracy ±0.5 °C / ±0.9 °F Coefficient (Per °C) 0.00 to 10.00 % Normalization 15.0 to 30.0 °C / 59.0 to 86.0 °F Compensation Type & Range Automatic with supplied cell or manual 0.0 to 100 °C / 32.0 to 212.0 °F, 0 to 80 °C / 32.0 to 176.0 °F with supplied cell Calibration Offset in 0.1° increments; offset range: ±5.0 °C / ±9.0 °F	01	Each	
9	Digital Refractometer with Accessory : ASP brand –ASP-R502 User-Friendly Operation: The touch screen interface allows for easy navigation through menus and settings. It simplifies the operation process, making it accessible even for users with minimal training. Automatic ABBE Enhanced Display: A large, high-resolution screen provides clear visibility of readings and settings, reducing the chances of errors and improving user			

experience. Precision and Accuracy: The automatic feature ensures consistent and accurate measurements by minimizing human error. The device typically uses high-quality optics and sensors to provide precise refractive index readings. Speed: Automated processes significantly speed up measurement times compared to manual methods, enhancing productivity and efficiency in laboratory environments. Thermostatic Regulation: Many models come with integrated temperature control to maintain a constant sample temperature during measurements. This is crucial because the refractive index can vary with temperature. Temperature Compensation: The device can automatically compensate for temperature variations, providing accurate readings under different environmental conditions. Internal Memory: The refractometer often includes built-in memory for storing measurement data, allowing for easy retrieval and analysis. Connectivity Options: USB, Ethernet, and other connectivity options enable data transfer to computers or networks for further processing and record-keeping. Some models may also offer wireless connectivity. Wide Range of Applications: The device is suitable for various sample types, including liquids, gels, and transparent solids. This versatility makes it valuable across multiple industries. Easy Sample Loading: The design typically allows for straightforward sample placement and cleaning, facilitating quick changes between different substances. Automated Calibration: The refractometer can perform automatic calibration using standard solutions, ensuring consistent accuracy without extensive manual intervention. Low Maintenance: High-quality components and robust design contribute to low maintenance requirements, reducing downtime and operational costs. Pharmaceuticals: Ensuring the purity and concentration of substances. Food and Beverage: Measuring sugar content (Brix) and ensuring product consistency. Chemicals and Petrochemicals: Determining the concentration of various solutions. Measuring range Refractive index nD: 1.30000-1.70000 Brix (BX): 0-100%Measuring accuracy Refractive index nD: ± 0.0002 Dissolved solids Brix: ± 0.1% Measuring resolution Refractive index nD: ± 0.00001 Dissolved solids Brix: ± 0.01% Temperature Temperature display range: 0-90°C Interface RS232/USB			
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	Display 7-inch color touchscreen Weight Overall dimensions 500mm x 330mm x 220mm			
10	Ice Making & Flaking Machine : ASP Brand : ASPIC-60 Should be Ice making Capacity : 60-75 Kg/Hr Should be Ice Storage : 30 kg Should be Cooling Type : AirCooling Should be Refrigerant :R134a Should be Water Supply : TapWater Should be Stainless Steel 304Exterior Should be AdjustableFeet Should be Slide Away AccessDoor Should be World Famous Brand Compressor Should be Fully AutomaticController Improved Design For HigherReliability Certification Should be : ISO,CE, USDA	01	Each	
11	Soxhlet Apparatus : ASP brand Make : Soxhlet Apparatus for Fat Estimation. Delivering classical solutions with modernized approach for fat extraction 6 Position Digital Display -1-999 min & Continuous Flask Capacity (ml) : 500 ml PID control Microprocessor based	01	Each	
12	Pellet Making Machines : ASP Brand : ASP PMM80 Product Details: Type of Machine Cattle Feed Machine Capacity : 40-50 Kg/hr Motor Power 3 hp Three Phase Feeder Motor Power 3 hp Single Phase Material Should be CI/WPS/MS Weight Should be 80-85 kg Automation Grade Semi Automatic No of rollers Should be 2 Should be Frequency 50 Hz Should be Voltage 220, 230V Die Hole Diameter Mm 4 mm Organic YES Pellet Size Mm: 2mm to 6 mm	01	Each	
13	MULTIPARAMETER PORTABLE METER pH/ mV/ ION/ CONDUCTIVITY/ TDS/ RESISTIVITY/ SALINITY/ DISSOLVED OXYGEN/ TEMP. Make: EUTECH THERMO SCIENTIFIC Features : Waterproof CyberScan PCD650 pH/mV/Ion/Conductivity/TDS/ Resistivity/Salinity/Dissolved Oxygen handheld meter with pH electrode ECFC7252203B, 4 cell Conductivity probe ECCONSEN9203J, Dissolved Oxygen probe ECDOHANDYNEW, DAS software, power adapter & carrying kit set (all probes have 3 m cable length). ORP and Ion Electrodes	01	Each	

to be ordered separately.

- Simultaneously measures and displays four parameters. View individual parameter details at the press of a button
- Measures accuracy of up to ± 0.002 pH and resolution of up to 3-decimal points
- Accepts 2-cell and 4-cell Conductivity probe, enabling it to measure a wide conductivity range of up to 500 mS/cm – meter even measures pure water!
- Ion measurement capabilities with 3 digit resolution and 8 calibration points
- Measures 90.00 mg/L in DO concentration and 600 % in DO saturation – one of the widest Dissolved Oxygen measurement ranges offered in the handheld market
- Rugged and waterproof for applications in harsh environments
- Step-by-step prompts that guide users through set-up, calibration and trouble-shooting
- High/low alarm limits
- Meter automatically logs up to 500 readings with time and date in GLP-compliant format
- RS 232 through LED , USB / IrDA Interface Adapter
- Non-volatile memory protects information and meter settings, even when batteries run out
- Password protection to prevent tampering
- Warranty 3 years on meter against manufacturing defect and 6 months for electrode
- * Improper or inadequate maintenance by the customer.
- * Unauthorized modification or misuse.
- * Normal wear and tear or if the equipment has been put to wrong application or misused or put in mismatched environmental conditions

Specifications		ECPCDWP65044K
Highlights		Waterproof, GLP, RS232, IrDA parameter display
pH	Range	-2.000 to 20.000 pH
	Resolution	0.1/0.01/0.001 pH
	Accuracy	± 0.002 pH
	Calibration Points	1 (Offset) to 6 points
	Auto-Buffer Recognition	Yes
	Slope & Offset Display	Yes
Ion	Range	0.001 to 19900 ppm
	Resolution	2 or 3 digits
	Accuracy	0.5 % Full scale (monovalent) 1 % Full scale (divalent)
	Calibration Points	Up to 8
mV	Range	± 2000.0 mV
	Resolution	0.1 mV
	Accuracy	± 0.2 mV
	Range	-10.0 to 110.0 °C/14.0 to 230.0 °C

	Temperature		0 to 60.0 °C/32.0 to 140.0 °F (DO)		
		Resolution	0.1 °C/0.1 °F		
		Accuracy	±0.5 °C/±0.9 °F		
	Conductivity	Range	0 to 2.000,2.000 to 300.0 µS/cm; 300.0 µS/cm to 4.000 mS/cm 4.000 to 40.00 mS/cm,40.00 to 500.0 mS/*cm		
		Resolution	0.05 % Full scale 0.01, 0.1 µS/cm ; 0.001,0.01,0.1 mS/cm		
		Accuracy	±1 % Full scale + 1 LSD		
		Calibration Points	4 (1 per range) auto,5 (1 per range) manual		
		Cell Constant (K)	0.010 to 10.000		
		Temperature Coefficient	Linear & pure		
		Normalisation Temperature	15 to 30 °C		
		Auto-Ranging	Yes		
	TDS	Range	0 to 2.000,2.000 to 300.0 ppm; 300.0 ppm to 4.000 ppt 4.000 to 40.00 ppt,40.00 to 500.0 ppt#		
		Resolution	0.05 % Full scale 0.01, 0.1 ppm ; 0.001,0.01,0.1 ppt		
		Accuracy	±1 % Full scale + 1 LSD		
		Calibration Points	5 points		
		Conversion Factor	0.4000 to 1.000		
		Auto-Ranging	Yes		
	Salinity	Range	0 to 0.770,0.770 to 143.3 ppm; 143.3 ppm to 2.138 ppt 2.138 to 23.64 ppt,23.64 to 80.00 ppt#		
		Resolution	0.01, 0.1 ppm ; 0.001,0.01 ppt		
		Accuracy	±1 % Full scale + 1 LSD		
	Resistivity	Range	2.000 Ω to 25.00 Ω, 25.00 Ω to 250.0 Ω, 250.0 Ω to 3.333 kΩ, 3.333 kΩ to 500.0 kΩ, 500.0 kΩ to 20.00 MΩ		
		Resolution	0.01Ω , 0.1 Ω ,0.001 Ω,0.1 Ω,0.01MΩ		
		Accuracy	±1 % Full scale + 1 LSD		
	Dissolved Oxygen	Range	0.00 to 90.00 mg/L or ppm		
		Resolution	0.01 mg/L ; 0.01 ppm		
		Accuracy	±0.2 mg/L		
		Calibration Points	1		
	% Saturation of Oxygen	Probe	Galvanic with integral temperature sensor		
		Range	0 to 600.0 %		
		Resolution	0.1 %		
	Salinity Correction	Accuracy	±2.0 %		
		Range	0.0 to 50.0 ppt		
		Resolution	0.1 ppt		
	Barometric Pressure Correction	Method	Automatic /manual		
		Range	450 to 825 mmHg or 59.9 to 109.9 kPa		
		Resolution	0.1 mmHg or 0.1 kPa		
		Method	Automatic correction with built-in sensor		
		Operating	0 to 50 °C		

	Meter Features	Temperature			
		ATC	Yes		
		Hold Function	Yes		
		Ready Function	Yes		
		Memory	500 Data sets		
		Communication Output	USB / IrDA Interface Adapter (for 600 Series Meter to PC Communication) to be ordered separately		
		Inputs	DC Phono sockets, BNC, 8 Pin connector, 6 pin connector		
	Power		4x 1.5 V ‘AA’ Alkaline batteries or 9 V DC Adapter, 500 mA		
Standard supply		pH electrode ECFC7252203B, 4 cell Conductivity probe ECCONSEN9203J K=0.530 , Dissolved Oxygen probe ECDOHANDYNEW, DAS software, power adapter & carrying kit set (all probes have 3 m cable length) ORP electrode and Ion Selective Electrodes to be ordered separately			
14	Commercial Wet and Tilting Grinder : ASP Brand : ASPWTG20 Capacity : 20 ltr Usage/Application Commercial Type Tilting Capacity (l) 20 Litres Material Stainless Steel Voltage (V) 380 V Grade Semi Automatic Grinding Time 45 min Power Source 1/3 Packaging TypeCarton Color Silver Frequency (Hz) 50 Motor Capacity (HP) 1.5 Motor Power (HP) 1.5 Motor 1.5hp Number Of Phase 1/3 Rotation Speed (RPM) 1440 Material Grade 202,304 Surface Treatment plain Weight (kg) 140 Condition New I Deal In New Only Corrosion Resistance Yes coconut scrapper own brand motor Country of Origin Made in India Commercial Conventional Wet Grinder Capacity : 20 lit		01	Each	

15	Drier : Paul Scientrument : PSD350 1. Instruments should have double walled construction; inside wall SS316 or better sheet and outside mild steel sheet. 2. Instrument must be microprocessor based with key base Display. 3. Capacity: 300-400 lit 4. Temperature range: Above ambient to 250°C or better. 5. Temperature accuracy: $\pm 1-3^{\circ}\text{C}$ or better. 6. Temperature control: Digital temperature indicator cum controller. 7. Heating elements must be placed at the bottom. 8. Number of shelves: Must have at least 6 nos. removable & adjustable shelves. 9. Should be CE, ISO Certificate 10. Should be Double daker Should be Sterilization kit		Each	
16	Mixture Commercial : ASP Brand Capacity (l) 25 KG Phase SINGLE OR THREE Motor Capacity (HP) 2 HP Condition New Corrosion Resistance Yes Constructed with high-grade components to ensure its longer service life Provides high operational fluency Dynamically balanced design that allows comfortable operation 2 HP Motor with Less Noise. Machine Capacity 25 Litres. Single phase or three phase. Semi-Automatic	01	Each	
17	Analytical Balance : Wensar Make Max Capacity : 200 gm Readability : 0.1 mg/0.01 mg Min Capacity : 10 mg Calibration : Internal LED Display Pan Size : 90 mm Sensitivity : 2 ppm Key Sound : YES Should be ECMF Calibration technology CE, ISO ,IQ OQ, PQ ,USDA certification	01	Each	
18	Two Lid Hard Top Chest Freezer (Deep freezer)-Celfrost : ASPCF500 Capacity Should be : 500-550 lts. Temperature range: 2 degree C ~ -20 C Should be Door lock facility, Should have Double Door. Refrigerant: R134a Should be Insulation (CFC free PUF) : 80 mm for Body & Door	01	Each	

	Should be Temperature control : Microprocessor Should be Internal Body Material : Galvanized SS – 304 grade (Non Magnetic, Non Corrosive) External Body Material : Precoated GI Steel (Corrosion resistant & Water Resistant) Sample storage rack & box should be here for the Crab			
19	Honey Extractor : ASP Suitable for Apis Mellifera Type -A box Frames Honey Bee extractor – 12 colonies (SS 304) Special gears set for easy handling. SS frame buckets, Suitable for Brood Frames Quality workmanship, with Easy spin gear for fast spinning Tags: Apis Cerana Hive, Apis Mellifera Hive, Flow Hive, Honey Extractor Bee Enthusiasts Brand Should have CE, ISO, certification	01	Each	
20	Projector with Laptop : BenQ & Dell 10 W Speaker, 3D Capable, White Display Technology DLP Display Type DLP Image brightness : 4000 Image contrast ratio : 20000:1 Aspect Ratio : 4:3 Screen Resolution 1024 x 768 Resolution 1024 x 768 Pixels Noise Level 34 dB Voltage 240 Volts Wattage 50 Watt Screen should be provide Amplifier with 12 inch speaker box • 13th Gen Intel® Core™ i5-1305U, 5 cores • Windows 11 Home • Intel® UHD Graphics • 8 GB DDR4 • 512 GB SSD 15.6" Non-Touch FHD	01	Each	
21	12.5 kVA Kirloskar DG Set Generator 12.5 KVA KIRLOSKAR GREEN DG Set compliant with CPCB - IV+ norms, Engine Model – 3R550NA 4G1, 3-Phase, 415 Volt, 50Hz, RPM-1500, with standard Control Panel Smooth performance with mechanical fuel injection system Better startability & low smoke Better steady state & transit performance - support for better clean power Maintenance free EGR system to meet CPCB IV+ emission norms No replacement to displacement Kirloskar Alternator is rugged and compact in design, with best in class	01	Each	

	efficiency Advanced digital AVR improves the voltage regulation and response time State of the art genset controller Genset monitoring at your fingertips On-board diagnostics Best fluid efficiency (fuel) Less coolant required Low operation cost Adequate fuel tank capacity to run 8-12 hours continuously K-Oil premium Compact footprint Peace-of-mind ownership Machine should be Fitted Concrete floor, Hight should be 15 ft from Land (10*10 ft) Two room Should be 4 mm wire with all plug point with connection in Commercial meter. 3 slight table should be provide in two room also vibration free Should be connection from Transformer (100 mt length) Machine Totally cover by Shade by GI road & Tata tin (15*15 ft) Warranty 1 year from date of Installation			
22	Customized 20 KVA voltage stabilizer three Phase Controlled Voltage Stabiliser (Copper wound Transformer) 1) Input Voltage: 160V-270V 2) Output Voltage: 230V (The output voltage can be set anywhere between 230V – 240V) 3) Regulation: □ 1% 4) Control: Automatic / Manual 5) Display: Digital Voltmeter to indicate line voltage input /output with selector switch. 6) Frequency: 47 Hz to 53 Hz (Sinusoidal) 7) Input Indication: High and Low voltage indicators with audible alarm. 8) Output wave form: The output waveform is true replica of the input. 9) Correction rate: 28 V / Sec 10) Ambient Temperature: 0 - 45° C 11) Type of Cooling: Natural Air Cooled. 12) Type of Motor: A.C. Step synchronous motor. 13) Protection: A Circuit Breaker is provided for Overload protection 14) Digital Display micro processor based	01	Each	

	15) Connection 6 mm Wire100 meter from Meter Box			
23	ZOOMSTAR-IV PLUS' UPGRADED STEREOZOOM TRINOCULAR MICROSCOPE WITH 'DIGI-1000' USB 3 MICROSCOPIC CAMERA ATTACHMENT AND DIGICAM SOFTWARE : Make- DEWINTER FEATURES : - Positive Image Optical System Zoomstar - IV Plus with zoom ratio 10:1, provide comfortable operation and superior image, relieve the fatigue of long-time observation. - LED illumination with the characteristics of safe, green, less heat and long lifetime, is highly efficient and economic, is able to restore the natural color of samples. - Different applications, such as biomedical, microelectronics and semiconductor inspection, are available. VIEWING HEAD : 45-degree Inclined Trinocular Head, splitting ratio binocular: trinocular 50:50, inter-pupillary distance: 54-76mm EYEPIECES : High eye-point wide field plan eyepiece PL10X/22mm, diopter adjustable OBJECTIVES : Zoom objectives system 0.65X ~ 6.5X. ZOOM RATIO : 10:1 MAG. RANGE : 6.5x to 65x with Standard 10x Eyepiece FRAME : Coaxial fine and coarse focusing mechanism, integrated Cylindrical Roller guide, focusing range 50mm, fine precision 0.002mm BASE : Base size : 320mm (W) x 260mm (D) x 274mm (H) dia. 100 Clear Glass and Black & White Plates and Specimen Holding Clips WORKING DISTANCE : 110mm Standard, Vertical Effective Movement : 220mm ILLUMINATION : Reflected illuminating 3W High Brightness LED / Transmitted illuminating 3W High Brightness LED FIELD RANGE : Ø 33.8 ~ Ø 3.49 CAMERA ADAPTER : 0.5X C-Mount with Focus adjtable 'DIGI-1000' USB-3.0 HIGH SPEED 10 MEGA PIXEL CMOS CAMERA ATTACHMENT WITH 'DIGICAM' LIVE IMAGE PREVIEW, CALIBRATION, MEASUREMENT WITH SCALE BAR IMAGE ANALYSIS SOFTWARE. TECHNICAL SPECIFICATION	01	Each	

	Sensor : 10 MP Image CMOS sensor Scan : Progressive Max Resolution. : 3584 x 2748 Sensor : 1/2.3" (5.98 x 4.58) Pixel : 1.67μm x 1.67μm G Sensitivity : 0.31v/lux-sec Dynamic Range : 65.2dB A/D Converter : 12-bit Parallel, 8-bit R.G.B to PC SN Ratio : 35.5dB Spectral Range: 380-650nm (IR-cut filter) Frame Size & rate : 7.2fps @ 3584 x 2746 Max. 35 fr/sec Binning : 1X1, Exposure : Normal Exposure: 0.38~2000ms, Long Exposure: 119.37ms~4mins ROI : Auto & Manual Long Color Rendering Technique : Ultra Fine™ Color Engine White Balance : One Push ROI White Balance/ Manual, Temperature and Tint Adjustment Capture/Control : Twain Capture Mode : Still Picture and Video Software : Digicam Data Transfer : USB3.0 5Gbps interface ensuring high speed data transmission Dimensions (L x W x H) : 3. 58 x 2.00 x 2.75 inches C-Mount Lens : 0.5x Reduction lens. Camera Control Tools Exposure & Gain : Auto exposure (exposure target preset) and manual exposure (exposure time can be inputted manually)/ Up to 5 times gain White Balance : Advanced single-click intelligent white balance setting, temperature and tint can be manually adjusted.			
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	Black Balance : RGB Correction. Colour Adjustment : Hue, saturation, brightness, contrast, gamma initialization adjustment Frame Rate Control : Adjustment of frame rate According to computer features Anti Flicker Mode : Switching thoroughly eliminates video flickering. Flip Mode : Check Vertical and Horizontal Position of original Image direction. Parameters : Load, Save, Export & Import Images by Camera Self defined control (including Calibration, Colour Managements) DIGICAM ONLINE MEASUREMENT AS WELL AS ANALYSIS SOFTWARE Provision to open 1 to 4 cameras at a time. Measurement on live zoom preview. Capture still and video format Capture at time interval (TimeLapse). Instant image capturing. Real time full screen image. Programmed interval captures. Video capture by time settings. Easy measurement calibration Background correction. On line (Live) Measurement in microns, inches, millimeters, Length measurements, Ellipse, Rectangle, Irregular shape measurements, Perimeter, Radius, Circumference measurements, Angle measurements Magnifier (zoom) function, Distant Image sharing, On-line files sending/receiving. Image amalgamation Image adjustment effects, Data export, Report generating and print out. Interactive file format. Scale Bar Facility			
24	Honey Filling Machine- Automatic bottle filling machine : ASP Brand : FILLING-SIN The Honey Filling Machine offers precise and efficient honey packaging for various production needs. Designed for both manual and automatic operation, it ensures smooth and consistent filling for honey and other viscous products. Filling Capacity: 50g to 500g Filling Head: Single-head paste filling system Operation Mode: Supports both manual and automatic control Speed: 6-10 cycles per minute for efficient performance Control System: Equipped with a pneumatic pedal switch for easy operation Material: Contact parts made from SS 304 stainless steel for hygiene and durability Hopper Capacity: 30kg to handle large batches seamlessly Versatile Usage: Ideal for honey, jams, syrups, and other viscous liquids. Hygienic & Durable: Stainless steel construction ensures food-grade safety. Easy to Operate: Offers seamless switching between manual and automatic	01	Each	

	modes. High Efficiency: Delivers consistent and accurate filling with minimal wastage. Compact & Sturdy: Designed for both small-scale and large-scale honey production Certification should be CE,ISO			
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Important Dates:

Sl. No.	Items	Publishing Date (s)
1	Date of uploading of N.I.T. & Tender documents (online) from this end	31.07.2025, 06:00 P.M
2	Documents downloading, Starting date (online)	31.07.2025, 06:00 P.M
3	Bid submission, starting date (online)	31.07.2025, 06:00 P.M
4	Bid submission, closing date (online)	18.08.2024, 01:00 P.M
5	Bid opening date for Technical Proposal (online)	20.08.2024, 01:00 P.M
6	Date of uploading of the list of Technically qualified Bidder (online)	To be communicated later
7	Date and Place for opening of Financial Proposal (online)	To be communicated later
8	Date of uploading of the list of bidders along with the approved rate	To be communicated later

INSTRUCTIONS TO BIDDERS

Instructions / Guidelines for electronic submission of tenders have been annexed for assisting the contractors to participate in e- tendering.

- I. **Registration of Bidder:** - Any bidder willing to take part in the process of e –tender will have to be enrolled & registered with the Government e – Procurement system through logging on to <https://wbtennders.gov.in>. The bidder is to click on the link for e – Tendering site as given on the web portal.
- II. **Digital Signature Certificate (DSC):** - Each bidder is required to obtain a class - II or class – III Digital Signature Certificate (DSC) for submission of tenders from the approved service provider.
- III. **Collection of Tender documents:** - The bidder can search & download NIT & Tender documents electronically from computer once he logs on to the website mentioned Clause 1 using the Digital Signature Certificate. This is the only mode of collection of Tender documents.

IV. Cost of Earnest Money (EMD)

Earnest Money (EMD) Quoted INR	Transaction No. & Date	Bank Name
80000 /- (To be deposited Online)		

Earnest Money (EMD):- Intending bidders are requested to deposit Rs. 80000 /- (to be deposited online by each bidder) only to be deposited by the bidder concerned electronically: online – through his net banking enabled bank account, maintained at any bank or: offline – through any bank generating NEFT/RTGS Challan from the e–tendering portal. Intending bidder will get the beneficiary details from e–tender portal with the help of Digital Signature Certificate and may transfer the EMD from their respective Bank as per the Beneficiary Name & Account No., Amount, Beneficiary Bank name (ICICI Bank) & IFSC Code and e–Proc Ref No. Intending bidder who wants to transfer EMD through NEFT/RTGS must read the instruction of the Challan generated from E–Procurement site.

Bidders are also advised to submit EMD of their bid, at least 3 working days before the closing date for bid submission as it requires considerable time for processing of Payment for EMD.

For getting exemption of EMD: - Bidders are requested to upload the relevant NSIC / MSME Registered Certificate against each item work for getting exemption of EMD, failing which their Tender will be rejected. For that they need to select the EMD page as Yes and provide the exemption type as fixed and put the actual EMD amount in Rupees and upload the exemption document.

N.B.: During evaluation, the bidders may be invited and clarification/ information or additional documents or original hard copy of any of the documents already submitted may be sought from them & if these are not produced within the stipulated time frame, their bid will be liable to rejection.

Rejection of Bid:

Tender Committee reserves the right to accept or reject any Bid and to cancel the Bidding processes & reject all Bids at any time prior to the award of Contract without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the ground for Tender Committee's action.

I. Submission of Tenders:-

- a. **General process of submission:** - Tenders are to be submitted through online to the website <https://wbtenders.gov.in> in two folders at a time for each work, one is Technical bid and other is Financial Bid before the prescribed date and time using the Digital Signature Certificates.
- b. **Technical Bid:-** Technical Bid contain scanned copies of the followings further in two cover (folder).
- c. **Online bid submission process (Bidder/Contractor)**
in <https://wbtenders.gov.in> portal, download the pdf file.

II. Statutory Cover Containing

- i) NIT and Corrigendum if any (Download the NIT and upload the same by digitally sign).

VII. NON-STATUTORY/MY DOCUMENTS containing the following documents:

Sl.No.	Category	Sub Category	Sub-Category Description
A.	Certificates	Certificates	1. PAN Card
			2. Professional Tax Registration Certificate
			3. GST Registration Certificate
			4. Valid Trade License
			6. NSIC / MSME Registered Certificate for getting Exemption of EMD.
			7. For non-registered organizations under NSIC/MSME, EMD documents are to be enclosed.
			8. Certificate of sole Authorized agent for supplying foreign instrument.
B.	Credential	Credential for satisfactory completion of similar nature of job amounting to 75% of the quoted value in a single tender in the last three (03) financial years in Government, or Government Undertaking or any State Aided University. Only completion certificate of the work will be considered as Credential of works.	

Note: Failure of submission of any of the above-mentioned documents will render the tender liable to be summarily rejected for both statutory & non statutory cover.

VIII. Financial Bid: - BOQ in INR (in excel sheet)

- i) The financial bid should contain the following documents in one cover (folder) i.e. Bill of Quantities (BOQ). The contractor is to quote the rate through online in the space marked for quoting rate in the BOQ.
- ii) Only downloaded copies of the above documents are to be uploaded, virus scanned & digitally signed by the contractor.
- iii) The lowest bidder should be the sole authorized agent of the foreign instrument as per specification mentioned in BOQ and purchase order will be issued either to the Indian sole authorized agent (Lowest bidder) or in favour of the manufacturer (For foreign organization only) duly certified by the lowest bidder (sole authorized agent) and as per terms & condition of the lowest bidder.

IX. Opening & Evaluation of Tender:-

Opening of Technical Bid:

- i) Technical bid will be opened by the University of Calcutta Officials. Intending bidders may remain present if they so desire. Statutory Cover (folder) would be opened first & if found in order and correct Non Statutory Cover (folder) will be opened. If there is any deficiency in the Statutory & Non statutory documents the tender will summarily be rejected.
- ii) Decrypted (transformed in to readable formats) documents of the non statutory cover will be downloaded & handed over to the evaluation committee.
- iii) List of technically qualified bidders would be uploaded.

NB: While evaluation, the committee may invite the bidders & seek clarification/ information or additional documents or original hard copy of any of the documents already submitted & if they are not produced within the stipulated time frame, their bid will liable for rejection.

X. Opening and evaluation of Financial Bid:

Financial bid of bidders declared technically eligible by the Committee will be opened electronically from the web portal on the prescribed date and time.

XI. Penalty for suppression / distortion of facts:

Submission of false document by bidder is strictly prohibited and will be liable for rejection of the tender.

XII. Special conditions related to Payment Terms:

- 1) The rate should be inclusive of all Govt. taxes and cost of loading, un-loading, and commissioning to the University of Calcutta.
- 2) Only one currency will be given.
- 3) The lowest bidder should be the sole authorized agent of the foreign instrument as per specification mentioned in BOQ and purchase order will be issued either to the Indian sole authorized agent (Lowest bidder) or in favour of the manufacturer (For foreign organization only) duly certified by the lowest bidder (sole authorized agent) and as per terms & condition of the lowest bidder.
- 4) The payment terms would be 100% Letter of Credit on submission of shipping documents.

- 5) The quote should be submitted up to CIP Kolkata basis. For clearing, charges will be added to the main system cost in any single currency only.
- 6) The lowest bidder should quote the rate of clearing charge in any single currency only.
- 7) 100% Payment will be made after delivery, successful installation and commissioning of the equipment.
- 8) Vendor should mention the terms & conditions of payment in the Technical Bid (NON-STATUTORY/MY DOCUMENTS).
- 9) The price quote should be broken up into basic rate, all government taxes, loading, unloading carrying etc. all complete.

Surekha Kundu

Joint-PI, Project DST/SEED/SCSP/STI/2023/1176
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