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DEPARTMENT OF ZOOLOGY NOTICE INVITING E-TENDER

Online E-Tender is invited, by the Registrar, Cooch Behar Panchanan Barma University, for supplying the different Instruments/ Laboratory Equipments to the Department of Zoology, by the eligible vendors. Interested vendors may follow the instructions as given below for submission of their tenders under online mode:

Sl. No	Item	Specification	Qty.
1	LAB GRADE WATER PURIFICATION SYSTEM	<p><u>Part 1: High Quality Pre Filter Before Main Unit to counter the feed water contamination</u> <u>Manufactured by same equipment manufacture</u></p> <ul style="list-style-type: none">➤ Iron Removal Filter must be with the backwash and rinse facility, capacity should be upto 400 L/Hr and which can take care up-to 4 ppm of Iron contamination.➤ High quality Prefilter with Low pressure switch cuts off system which can able to take care high TDS upto 5000 ppm and high SDI up to 50 having 5 Micron and 1 Micron with DC diaphragm pump to boost water pressure from 0 to minimum 2.5 bar at approximately 120 L/hr with noise levels of Less than 50 Db. <p><u>Part 2: Main Unit Lab Grade Water purification System(Type II)</u> Feed water acceptance capability Specifications for main unit- Conductivity: < 2000 μS/cm, Fouling Index (SDI): upto 12, Free Chlorine: upto 3 ppm</p> <p><u>Product Water and main unit should meet or exceed Type II water quality</u></p> <ul style="list-style-type: none">• Resistivity 10-15 Mega Ohms with Flow Rate - 3Ltrs/Hr and TOC <30 ppb• Automatic EDI – With Carbon Beads at cathode which doesn't required extra pre softening cartridges.• System should have facility to control remotely with the help of software interface.• No of Conductivity Cell to ensure the Input Output water quality- 3 Nos.• RO pressure, RO water quality, RO membrane efficiency (% ion rejection) should be seen on display• Inbuilt Pretreatment Cartridge- 0.5 Micron filter, anti-scaling compounds and RFID tag.• Pre-treatment pack contains silver-impregnated activated carbon which prevents the proliferation of Bacteria present in tap water; antiscaling compounds must to eliminate hardness and protect the RO membrane against oxidation, scaling and plugging.• RFID Tag- for Traceability of pretreatment cartridge and every Liter throughput water volume should be seen on the display. Date of	1

		<p>installation also be seen on the display.</p> <ul style="list-style-type: none"> • Co axial resistivity meter-0.01/cm coefficient for optimum measurement accuracy of low ionic contamination as required by ASTM® D 1125-95 (2009) and comply USP <645> • RO reject water recovery- up-to 50 % before and after RO conductivity cell to know the % rejection RO so that performance of RO can be seen in the display. • 3 Way solenoid Valve- RO permeate is diverted to drain until the quality meets expectations. No. of Recovery loop – 1 Nos to save wastage of reject water. Recirculation in regular interval should be from system and reservoir to maintain the water quality. <p><u>Specifications for Bottom Feed Storage Reservoir</u></p> <ul style="list-style-type: none"> • <i>Cylindrical tank Capacity minimum 30 Liter. Conical in bottom and water dispensing from the bottom to avoid stagnation of water.</i> • <i>Bottom feed tank to minimize airborne contamination, Fully Drainable tap should be there for easy cleaning, Opaque reservoir walls</i> • Single 3 stage vent filter consisting of soda lime, activated carbon and 0.45 micron to minimize airborne contamination • Have the option of using submersible 254 nm UV Automatic sanitization Module. Tank should not be a consumable, it should be cleanable. <p><u>Display Type II system:-LCD Display must show all below parameter to understand the main system’s performance, maintains and servicing quality and consumable status by the user itself.</u></p> <ul style="list-style-type: none"> • Product water Resistivity and % of RO rejection • RO pressure, RO water quality, RO membrane efficiency % ion rejection, RO feed water conductivity and Permeate water conductivity • Volume of main system’s pretreatment cartridge consumption- so that service and cartridge replacement should be monitor by user. Consumable status on the display- like pretreatment so that user can easily understand no need to depend upon service person. • Alarms and alters with complete text description for better understanding, not just red or yellow indicator. <p><u>Certifications for Type- II Water System:-</u></p> <ul style="list-style-type: none"> • CE, cUL, FCC, ISO® 9001 v. 2000- and ISO® 14001, All certificates need to be submitted along with tender • GMP and GLP, ASTM® D 1193, ISO 3696, ASTM® D 1125-95 (2009) and • USP (645) <p>Part3: Ultra-Pure Water (Type I) should meet: Type I water should be produced from two stage mixed bed ion exchange and activated carbon cartridge, and conductivity sensor, and an option for final filter in dispensing arm.</p> <p>➤ <u>Product Water Quality: UltraPure (Type I) water:</u></p> <ul style="list-style-type: none"> • Resistivity: 18.2Mohm.cm • TOC: <2ppb • Bacteria: <0.1 • Pyrogens (endotoxins) <0.001 EU/mL • RNases <1 pg/mL 	
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2	<p>Table top refrigerated centrifuge with multiple rotors</p>	<p>Refrigerated High Speed with multiple rotors (1.5/2ml, 15ml, 50ml, 250ml with adaptor; fixed angle and swinging): 1 (one) unit</p> <ul style="list-style-type: none"> ➤ Refrigerated multipurpose bench-top centrifuge 3 Lit capacity ➤ System should be capable of using fixed angle and swing out rotors with adapter to use different tube formats. ➤ System should maintain temperature range –9°C to 40°C ➤ System should have a maximum Capacity of 4 x 250 ml bottles and 2 x 5 MTP ➤ Maximum speed for fixed angle rotors should be 14,000 rpm and RCF 20,913 xg force, for swing out rotors maximum speed of 4,500 xgforce 	1

		<ul style="list-style-type: none"> ➤ System should have user-friendly operation; key panel with provision to set speed RPM / RCF, radius correction values that can be changed during centrifugation. ➤ System should have fast temperature function for rapid cooling of centrifuge and stand-by cooling options ➤ System should have an in-built condensate drain to prevent water accumulation ➤ System should have excellent temperature control with compressor running continuously during the run time ➤ System should have automatic shut off function to reduce energy consumption and to extend compressor life when not in use for long hours ➤ System must be equipped with automatic rotor recognition and imbalance detection for maximum operational safety ➤ Timer setting 1 min to 99 min, with continuous run function and separate short spin key with selectable rotational speed ➤ System should have 10 acceleration and deceleration steps ➤ Noise level at max speed should be less than 59 dB(A) for quiet operation in work place ➤ Rotors and rotor lids should be made of metallic and must be fully autoclavable at 121°C ➤ Centrifuge lid with soft-touch lid closure, and low opening height for stress-free lid locking ➤ System must have a smallest possible foot print and smallest lid opening height for easy sample accessing while loading and unloading samples ➤ System should have LCD display ➤ Features in the quotations should be substantiated with proper company catalogue ➤ System must be European CE Certified ➤ Warranty of at least one year from the date of successful installation in the lab <p><u>Rotors:</u></p> <ul style="list-style-type: none"> ➤ Fixed angle rotor for 6 x 50mL tubes with maximum of 12,100 rpm and 20,130 x g ➤ Adapters for 15 mL tubes (6 no.s) must be provided ➤ Metallic rotor lid with aerosol tight for safe centrifugation ➤ Rotor must be low weight (<3.2 kg) for easy handling ➤ Rotor bore angles must be 45° angle to minimize the pellets smear along the tube walls ➤ Fixed angle rotor for 30 x 1.5/2.0 mL tubes with maximum of 14,000 rpm and 20,800 x g ➤ Rotor and lid must be autoclavable with aerosol tight for safe centrifugation ➤ Swing out rotor of 4x 250 mL with rectangle bucket to fit tube/bottle using adapter with maximum of 4,000rpm and 3,220 x g. ➤ Swing out rotor for 2x5 microtitre plate , 2x4 cell culture plates, 2x2 deepwell plate, 3700rpm/2250xg, autoclavable. ➤ Adapters for 36 x 15 mL, 48 x 3 - 15 mL, 4 x 250 mL flat bottles. <p>Note : True Online UPS with ½ hour back-up .Suitable UPS and stabilizer should be provided with the equipment setup</p>	
3	Table top refrigerated	<ul style="list-style-type: none"> ➤ Maximum Speed of 21,130 xg /15,000 rpm with a brushless motor 	1

	<p>microcentrifuge</p>	<p>and Temperature range should be from -10°C to +40°C</p> <ul style="list-style-type: none"> ➤ System should have timer settings from 30sec to 9:59 h, with continuous run function ➤ System should have a capacity to use max24 x 1.5/2mL tubes ➤ Rotor and lid both should be metallic and withstand autoclaving at 121°C ➤ System should also have the provision to use additional rotors for 18 x Spin column tubes, 4 x PCR strips and chemical resistance PTFE coated rotor for 24 x 1.5/2 ml tubes ➤ Adaptersto support tube formats like 0.2ml, 0.5ml should be available ➤ Aerosol tightness of the rotor should be certified by a third-party agency ➤ System should be possible to operate the rotor even without rotor lid ➤ System should have an in-built condensate drain to prevent water accumulation in the rotor chamber ➤ System should have fast temperature function for rapid cooling of centrifuge ➤ System should possess a separate short spin key with defined maximum speed for brief spin ➤ System should be possible to program compressor shut off after 8 hours of non-usage of thecentrifuge ➤ System should be possible to operate the centrifuge at set rpm, for short spin protocols ➤ System should have key lock function to prevent accidental change in the set parameters ➤ Noise levels should be <54 dB(A) for quite operation in work place ➤ System must have an USB-port for service maintenance ➤ System should be CE Certified and UL marked ➤ Warranty of at least one year from the date of successful installation in the lab <p><u>Rotor:</u></p> <ul style="list-style-type: none"> ➤ Fixed angle rotor for 24 x 1.5 / 2.0 mL tubes with aerosol tight lid with maximum of 15,000 rpm and 21,130 x g. Rotor with metallic aerosol-tight lid for safe centrifugation. 	
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4	<p>High-End Multicolor Flow Cytometer Analyzer</p>	<ul style="list-style-type: none"> ➤ The required system should be a Bench top flow cytometer (analyzer) with 3 lasers, 12 colors & 14 parameters. The lasers should be 488nm (blue), 640 nm (red) & 405 nm (violet) and should work simultaneously. All the lasers, their excitation optics & collection optics should be fixed aligned. All fluorescence channels and side scatter detection channel must incorporate Photomultiplier Tubes (PMTs) to ensure maximum possible resolution from even dimly stained populations. ➤ The system in addition, should offer software driven auto alignment & fine alignment features to ensure consistent performance. The system should be able to do automated compensation calculation, single fluorochrome addition and inter-beam compensation. ➤ The analysis speed should be at least 35,000 events per second or better. The system -apart from offering low, medium & high flow rates, should also offer high sensitivity mode, which can result in higher fluorescence signal resolution for dim stained population. ➤ The system should be capable of doing absolute cell counting with and/ or without reference beads. The system should accept various kinds of sample input devices like 2ml, 5ml, 15ml or 50 ml tube. The system should be in a single tube acquisition format & upgradable in future to universal plate and tube loader platform which can accommodate minimum 30 tubes & 96 / 384 well plates as well. ➤ The System should have sample carry over less than 0.1% or better. ➤ The system software should be capable of establishing baseline settings of system performance and be able to adjust for instrument variability thereby automating instrument setup leading to consistent & reliable results. The system should also offer automatic (time defined) startup& shut down procedures ➤ The system software should offer support for 21 CFR part 11 guidelines for electronic records and signatures to protect data integrity. The system software should also have pre-defined assay menu for one-click launch. The system should also allow analysis of data parallel to sample acquisition. 	1

		<ul style="list-style-type: none"> ➤ Data management system: PC workstation with at least 3.0 Ghz processor, 2GB RAM, 160 GB hard drive, DVD/CD-ROM read/write combo drive, 19" LCD monitor and laser jet printer. ➤ System should come with a Warranty of at least 3 yearS from the date of installation ➤ Suitable UPS and stabilizer should be provided with the equipment setup ➤ System should be accompanied by an additional high-end research use offline data analysis software as a single solution for flow analysis with intuitive drag-and-drop analysis models for advanced data analysis using unlimited wide open novel Plugin architecture with fast updates and publication quality graphics like UMAP, FitSNE, FlowSOM, EmbedSOM etc. 	
5	<p>Ultra-low Temperature Freezer (-86°C) with sample storage boxes</p>	<ul style="list-style-type: none"> >Volume : 410 L (14.5 ft³). > Maximum sample capacity with 2 inch box : 24,000 > Freezer type : Vertical (Upright) > Temperature range : from -50°C to -86°C > Cooling type : air-cooled > Cooling liquid : Hydrocarbons (green or natural gases)- propane (R290) and ethane (R170) > Insulation : 130 mm wall based on polyurethane insulation and vacuum insulation panels > No. of compartments : 5 > Noise level : 53 dB > Pull-down time (of empty freezer with shelves fitted, from 21 – 26 °C ambient conditions) to -85°C : 4.7 hrs. > Max. power consumption : 8.4 kWh per day > Voltage Stabiliser with Output Voltage Range: 230 Volts +/-1% & input Voltage Range :170-270 volts > Non-corrosive anodized Aluminum racks – 6 nos. > Storage boxes with outer footprint dimensions of 133 mm made of polypropylene for high stability in freezing applications and autoclavable (121°C, 20 min) for sterilization. Boxes should have transparent lid laser- 	1

		<p>labeled, high-contrast, permanent alphanumeric markings of each location for easy sample reference.</p> <p>Required quantity of boxes: 96 nos. of 1-2 mL capacity; 24 nos. of 15 mL capacity; 24 nos. of 50 mL capacity</p>	
6	<p>Fixed Koehler Binocular Laboratory Microscope for Transmitted Light Bright Field Studies with HAL Illumination and LED illumination and Pointer Eyepiece</p>	<ul style="list-style-type: none"> ➤ Should have Extremely stable stand with wide lower part and low center of gravity ➤ Modular designed Halogen illumination with 6V 30W Halogen lamp and Long Life LED- warm-light, 3200K. Both can be used alternatively ➤ 6V 30W halogen power supply Integrated into the stand via a park position; Storage area for power cable and power supply in back of stand. Multi voltage power supply 3 country specific plugs; IEC-Adapter for adapting the power supply into a table top power supply. Meets all international standards and safety standards (CE, CSA, UL, ICC, ISO 9001 , 1vD). ➤ Carrying handle fully integrated into the stand. Microscope should be easily and comfortably be moved. Ergonomically designed. ➤ Intensity level display by means of a 5-element Display on both sides of the stand via live blue LEDs. Should protect lamp life by ensuring that all instruments are turned off when not in use. ➤ Quadruple reverse nosepiece tiltedbackwards (to accommodate 4 objectives) with precision click stops for easy rotation. Allows easy access to stage and protects objectives. ➤ 6V/30W tungsten halogen illumination with “pre-centered” lamp mount for easy lamp changing (centering of lamp is not needed whenever changed) also Long Life LED warm light with 3200K. ➤ ABBE Condenser with aspherical lens and iris diaphragm, N.A. 0.9/1.25 for use with objectives 4x to 100x. ➤ Long-Life Stage coating; X-Y controls on the right hand side and specimen holder with spring clip on the left side; easy to read vernier scales for precise and fast repositioning of sample. ➤ Coarse and fine focusing with safety stopper; fine focusing graduations in 2.5 microns scale interval. ➤ 30° inclined ergonomic Binocular tube, sidentopf design, suitable for eyepieces upto field of view 20mm. Inter Pupillary Distance range 48-75mm and eyepiece tubes can be swivelled either way for comfortable viewing angle of the operator (unique feature). ➤ Eyepieces with 10x magnification, field of view 18mm suitable even for spectacle wearers. Focusable eyepieces are with ± 5 diopter adjustment. ➤ High contrast Plan-achromatic objectives 4x/0.10, 10x/0.25, 40x/0.65 and 100x/1.25 oil. ➤ Attachable transmitted light mirror available as option. 	6
7	<p>Microprocessor controlled Class II A2 Type Bio-Safety Cabinet for Mammalian Cell Culture</p>	<ul style="list-style-type: none"> ➤ The cabinet should be advanced microprocessor control, which supervises operation of all cabinet functions. ➤ Temperature-compensated air velocity sensor monitors both exhaust and downflow. ➤ 24-hour clock, UV timer, UV run hour meter, and blower run hour meter are standard. ➤ There should be programmable PIN , which restricts unauthorized 	1

		<p>cabinet access.</p> <ul style="list-style-type: none"> ➤ The Biological safety cabinet should comply International Standard Certificates like EN/NSF , ISO , JIS etc ➤ The cabinet should have energy efficient ECM DC blower motor with night set back mode facility ➤ The cabinet should have long life DUAL ULPA Filter for supply and exhaust (per IEST-RP-CC001.3) with 99.999% efficiency for particle size 0.1 to 0.3 microns. ➤ Should be raised armrest for elevates the operators arms to prevent inflow grille blockage for safety work. ➤ Work tray should be made of single piece stainless steel type 304 , with 4B finish ➤ Programmable automatic UV light timer should simplify operation and extending UV light life and saving energy. ➤ The Cabinet outer surface should have antimicrobial coating for minimizing contamination. ➤ The controller should include soft touch keypad controls with LCD display of air flow velocity ➤ The cabinet should have built-in warm, white, electronically ballasted zero flicker and instant start 5000K lightening provides excellent illumination of the work zone. ➤ The construction of cabinet should be electro galvanized steel including stand also. ➤ Internal Dimension around 1275 x 550 x 670 mm(w x d x h) ➤ Inflow velocity should be around 0.45m/s ➤ Instant start fluorescent lamp intensity should be around 1200 lux ➤ The sound emission of the should be less than 63 dBA ➤ There should be UV protected sliding front sash which can be fully opened to insert and remove large instruments. ➤ The cabinet should come with following accessories :- <ul style="list-style-type: none"> • Should be UV lamp, minimum two nos electrical outlet sockets, and antiimicrobial coated movable stand with wheels & brakes for easy movement. • Model should be enlisted in NSF website & NSF sticker should be on the cabinet. <p>Should have at least 25 nos user list at state/central govt institutes/Universities/Medical Colleges in West Bengal region [list require with offer]</p>	
8	Rotary Evaporator	<p><u>Rotavapour :</u></p> <ul style="list-style-type: none"> ➤ A high-quality rotary evaporator to meet the essential needs in classical Laboratory applications. It should have manually adjustable rotation speed of 20 to 280 rpm and equipped with an action jack lift for manual lifting of the evaporating flask. Complete with vertical condenser, 1 L receiving and evaporating flasks and a vapor duct and bundled with the Vacuum Pump regulated by a Digital Vacuum Controller and the Recirculating Chiller. Rotavapor:Vertical condenser for standard applications with cooling surface area 1500 cm², Angle adjustable 0 – 35°, Stroke distance 145 mm (+ 115 mm 	1

extendable),

- Rotation speed 20 – 280 rpm, Flask size range 50 – 4000 mL can be used on the same joint adapter without additional connections,
- Heating Power: 1300 W,
- Controlled temperature range : 20 – 95 °C,
- Temperature regulation accuracy : ± 2 °C.
- Maximum flask capacity : 3 kg
- Over-temperature protection of the Bath: Power cut off when actual temperature exceeds set temperature or by rapid temperature increase.
- Protection class : IP20

- Approval CE

Vacuum Pump:

- Chemically resistant PTFE diaphragm vacuum pump with a space saving design.
- Regulated by the Digital Controller and to be delivered with a silencer and 2 m of vacuum tubing.
- Suction capacity: 1.5 m³/h
- Number of steps (heads): 2 (2)
- Final vacuum (absolute): 10 mbar (± 2 mbar)
- Power consumption: 150 W
- Power consumption, Eco2 mode (70 %) : 70 W
- Nominal Speed , Eco mode 2 (70%) : 70% of Nominal Speed
- Nominal Speed : Max. 1280 rpm

- Sound level: 32 – 57 dB(A)
- Approval CE
- Pump should have ECO-mode that should get automatically activated after 1 hour of operation, hence the pump does not work on its full capacity and consumes less electrical power and works under reduced stress.

Digital Vacuum Controller:

Easy to use interface that controls the vacuum digitally. It is optimally suited to on/off-regulate the Vacuum Pump.

- Measurement range 1400 – 1 mbar
- Control range 1100 – 1 mbar
- Timer function to stop the process after pre-set time
- Overpressure prevention - Automatic aeration when pressure above 1400 mbar
- Protection class IP21
- Approval CE/CSA
- Hysteresis : Automatic or 1 – 500 mbar
- Display : Digital, monochrome, 4.0 in

		<ul style="list-style-type: none"> • Measuring accuracy: ± 2 mbar (± 1 digit) - after calibration at constant temperature • Output voltage : 30 VDC • Indication of values : Set and actual value of pressure are shown simultaneously on display • Operation of Vacuum Pump : Automatic On/Off-function • Operation of Recirculating Chiller : Automatic On/Off-function <p style="text-align: center;"><u>Re-circulating Chiller:</u></p> <ul style="list-style-type: none"> • Temperature Range: -10°C to $+ 25^{\circ}\text{C}$ • Cooling Capacity: 530 W at 15°C • Temperature Regulation Accuracy: $\pm 1^{\circ}\text{C}$ • Tank Volume: 3.0 Litres • Pump Pressure: 0.6 bar • Pump Flow rate: 2.5 Litres/min • ON/OFF regulation by Vacuum Controller • Power Consumption : 850W • Refrigerant : R134 a(280 g) • Temperature display : digital, resolution 0.1°C 	
9	CO₂ Incubator	<ul style="list-style-type: none"> ➤ Capacity : 170 lit(6.0 ft³) ➤ highly uniform atmosphere with uniform temperature verified at 27 points by multiple temperature sensors and four individually controlled heating circuits ➤ High temperature disinfection (HTD) : 140°C ➤ Fan-less design for increased capacity and less contamination ➤ no internal HEPA-filters ➤ Seamless, stainless-steel interior to minimize possible points of contamination ➤ Perforated and reinforced 1.5 mm stainless steel shelves. Number of shelves 4standard with maximum of 8. ➤ Ethernet port for data export ➤ Dual-channel Infrared (IR) CO₂-sensor ➤ easy-to-open magnetic latches on inner door ➤ Sealed inner glass door ➤ Temperature range : Ambient $+4^{\circ}\text{C}$ to 50°C ➤ CO₂ range : 0.1 – 20 % with 0.1 % control increment ➤ 2 Access ports ➤ For full protection of our precious cell culture experiments incubators should have upgrade provision in future to send important 	1

		<p>notifications instantaneously and directly to the right person with.</p> <ul style="list-style-type: none"> ➤ Two CO2 Cylinder & Regulator to be included in the offer. ➤ Suitable UPS and stabilizer to be included 	
10	P^H meter	<p>pH range: 0 to 14 or wider pH Resolution: 0.01 or lower Relative accuracy: ± 0.01 or better Temperature compensation: automatic Display: LCD pH calibration point: 3 point auto calibration. Store of last calibration data (to avoid recalibration): Yes, stored in device/pH electrode Accessories:</p> <ul style="list-style-type: none"> ➤ pH Electrode: Standard size Glass body electrode suitable for aqueous solutions including Tris buffer. ➤ Electrode arm with holder. ➤ Standard buffers etc. for calibration and other solutions, if any. 	1
11	Inverted Microscope with High Resolution Color Scientific Digital Camera	<ul style="list-style-type: none"> ➤ Inverted Microscope for observation under bright field & phase contrast. ➤ Transmitted illumination with Halogen or LED illumination with Neutral Density filter, conversion filter & green filter. ➤ Minimum 5-position nosepiece for Bright Field & DIC ➤ IC²S Optical system suitable for bright field & phase contrast LD 20x, LD 40x, 63x. ➤ Focus range should be 13 mm or more ➤ Mechanical stage and universal mounting frame for petri dishes and slides. ➤ Binocular tube with minimum FOV 23, IPD adjustable 55 mm to 76 mm and Wide field 10x with a minimum field of view 20 mm focusable front lens and rubber eyecups. ➤ Digital microscopy camera with minimum 5 Megapixels, color, CMOS, minimum Pixel size: 2.2 µm x 2.2 µm, minimum Sensor size: 5.7 mm x 4.28 mm equivalent 1/2.5" (diagonal 7.1 mm) & software for measurement, color adjustment, text annotation etc. ➤ One year warranty is to be provided ➤ Suitable desktop PC with licensed OS, TFT monitor ➤ Suitable UPS to be supplied along with the system ➤ Immersion oil (20 ml) x 2 	1
12	Trinocular Microscope for Transmitted Light Bright field and Phase contrast studies	<ul style="list-style-type: none"> ➤ with Universal Condenser and Digital Camera ➤ High stability stands with rust proof and acid proof painting. ➤ High quality optics with latest Infinity Colour Corrected System (IC²S) for high brightness, rich contrast and superb colour correction. All optics coated with anti- reflection / anti-fungal treatment. ➤ Quintuple revolving reverse looking nosepiece (can accommodate upto 5 objectives) with precision click stops, with ribbed grip for 	1

	<p>with Universal Condenser and Digital Camera</p>	<p>easy rotation.</p> <ul style="list-style-type: none"> ➤ Modular Illumination, you can choose from 12V/35W Halogen illumination with “pre-centered” lamp mount for easy lamp changing OR 3W LED Illuminator. ➤ Built-in “variable” field diaphragm with full Koehler-illumination setting and filter clamping device to mount filters on the field diaphragm. ➤ Special white balance filter to provide white light for visual observation available as an option. ➤ Abbe Condenser with aspherical lens, N.A. 0.9/1.25, with focussing and centering provisions. ➤ Mechanical stage, hard coat anodized surface for scratch free movement, with right handed co-axial low positioned X-Y scanning control knobs with scanning range 75x30 mm, vernier graduation, with right handed spring loaded specimen holder. ➤ 30° inclined ICS optics Trinocular tube, 360o rotatable, suitable for eyepieces upto field of view 22mm. I.P.D. range 55-75mm and eyepiece tubes can be swivelled either way for comfortable viewing angle of the operator (sidentopfdesing) (unique feature). ➤ 100% perfect “Koehler Illumination” setting is possible due to focussable& centering condenser and variable field diaphragm ➤ Eyepieces with 10x magnification, field of view 20mm/22mm suitable for spectacle wearers with front soft rubber cup. Focusable eyepieces are with ± 5 diopter adjustment. ➤ High contrast Plan-achromatic ICS objectives “A-Plan” , 5x/0.12, 10x/0.25, 40x/0.65 and 100x/1.25 oil. 40x and 100x front optics are spring loaded. ➤ Digital microscopy camera with minimum 5 Megapixels, color, CMOS, minimum Pixel size: 2.2 μm x 2.2 μm, minimum Sensor size: 5.7 mm x 4.28 mm equivalent 1/2.5" (diagonal 7.1 mm) & software for measurement, color adjustment, text annotation etc. ➤ One year warranty is to be provided ➤ Suitable desktop PC with licensed OS, TFT monitor ➤ Suitable UPS to be supplied along with the system ➤ 3 x 1 Immersion oil (20 ml) 	
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13	Autoclave Horizontal (cylindrical type)	<p><u>Construction:-</u></p> <ul style="list-style-type: none"> ➤ Triple walled with separate steam jacket and boiler. ➤ The inner chamber, steam jacket, outer chamber and boiler are made of heavy gauge stainless steel with leak proof argon are welding. ➤ The Radial locking lid is made of thick S.S plate ➤ Hydraulically tested to withstand 2.5 times the working pressure. ➤ Fitted with safety valve as a safety device. ➤ Drain valve is fitted at the side bottom for easy draining/cleaning. ➤ The unit is provided with a positive Self-locking safety door. ➤ Sterilization cycle is controlled by single point multiport valve. ➤ Highly accurate temperature indicator is fitted for monitoring temperature. ➤ Two separate valves are provided for evacuating stem from inner chamber and jacket as and when desired. <p>Other Accessories:</p> <ul style="list-style-type: none"> • Timer with Alarm system • Digital temperature indicator cum controller • Digital pressure indicator • S.S Trolley 	1
14	Single and Multichannel pipette with pipette controllers	<p><u>Single Channel</u> 3 X each pipette of different volume range (a,b,c,d,e)</p> <p>Each pipette should have the following features:</p> <ul style="list-style-type: none"> ➤ Ultra light& very low operation forces ➤ Ability to be fully autoclaved without the need to be disassembled ➤ Colour coding for easy identification of pipette volume ➤ Large 4 digit volume display with magnifying window ➤ Option to temporarily adjust the pipetting volume by up to $\pm 2\%$ to offset inaccuracies when working with liquids such as warm, cold, volatile or high density ➤ Embedded data chip for traceability. The chip should contain all relevant data like serial number, dispensing volume, factory adjustment data etc. ➤ Chemically resistant piston ➤ Spring loaded tip cone ➤ The bidder should have NABL certification for pipette calibration ➤ Pipettes for the following volume range are required: <ul style="list-style-type: none"> a. 0.5 μL to 10 μL X3 b. 10 μL to 100 μL X3 c. 20 μL to 200 μL X 3 d. 100 μL to 1000 μL X 3 	1

		<p>e. 0.1 µL to 2.5 µL X 3</p> <hr/> <p>8 Channel, variable volume pipettes (1x each volume range (a,b,c,d))</p> <p>Each pipette should have the following features:</p> <ul style="list-style-type: none"> ➤ Ultra light& very low operation forces ➤ Ability to be fully autoclaved without the need to be disassembled ➤ Colour coding for easy identification of pipette volume ➤ Large 4 digit volume display with magnifying window ➤ Option to temporarily adjust the pipetting volume by up to ±2% to offset inaccuracies when working with liquids such as warm, cold, volatile or high density ➤ Embedded data chip for traceability. The chip should contain all relevant data like serial number, dispensing volume, factory adjustment data etc. ➤ Chemically resistant piston ➤ Spring loaded tip cone ➤ The bidder should have NABL certification for pipette calibration ➤ Pipettes for the following volume range are required: ➤ a. 0.5 µL to 10 µL b. 30 µL to 300 µL c. 20 µL to 200 µL d. 100 µL to 1000 µL <hr/> <p><u>Electronic Pipette Controller (3 Qty.)</u></p> <ul style="list-style-type: none"> ➤ Electronic Pipette controller for use with pipettes from 0.1 – 100 mL ➤ Serial dispensing of aliquots of different volumes ➤ Resuspension of bacteria or cell pellets ➤ Aspiration of cell layer from, e.g., Ficoll® gradient ➤ Intuitive and convenient speed adjustment simply done with the tips of your fingers ➤ Lightweight, well-balanced and ergonomic design that allows for fatigue-free pipetting ➤ Vibrant backlit LEDs provide optical feedback of the remaining battery life ➤ Lithium polymer rechargeable battery to offer long cordless runtime ➤ Smooth setting of pump speed ➤ Operation while recharging should be possible ➤ Autoclavable pipette adapter for sterile applications ➤ Quick release of aspirating cone for easy exchange of membrane filters <hr/> <p><u>Serological pipets designed to work in perfect harmony with electronic pipette controller (1pkt of each volume (a,b,c,d))</u></p> <ul style="list-style-type: none"> ➤ Clear and precise graduations for easy volume determination ➤ Color-coding for easy identification of pipet sizes ➤ Subunits with dispenser option to keep stored products safe ➤ Individually wrapped pipets for reliable sterility ➤ Ultra-pure virgin polystyrene meeting the requirement of USP VI ➤ Sterility assurance level of 10⁻⁶ ➤ Certified absence of detectable pyrogens, DNA, RNase and DNase 	
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		<ul style="list-style-type: none"> ➤ Certified non-cytotoxic Volume required – (800 pcs each). a. 1 mL, b. 2 mL, c. 5 mL, d. 10 mL 	
15	Cell Culture seeding accessories	<p>A) Cell culture flask for performance of cell-based assays and microscopic analysis, with below features:</p> <ul style="list-style-type: none"> a) 3 to 7ml volume (24 bags) b) 8 to 20 ml volume (16 bags) <p>>100 % Mycoplasma-safe filter technology and optimized gas exchange > Special design for facilitated access to growth area and easier and safe cell treatment to make cell seeding and media exchange more convenient, safe and reliable >Defined arrested position on plug-seal caps to prevent undesired closing >Anti-rolling cap with corrugation facilitates cultivation steps when the cap needs to be set aside >100 % in-line control for leakage-free flasks and maximum safety >Direct surface identification on flask and cap >SAL 10⁻⁶ >Certificates for leachables, trace metals, cytotoxicity etc. should be made available >T-25 (Working volume 3.0 – 7.0 mL) &, T-75 (Working volume 8.0 – 20.0 mL) flasks to be offered with TC treated surfaces >Material–polystyrene >Purity grade - Sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free. Non-cytotoxic</p> <p>B) Cell culture dishes (Tissue culture treated)-</p> <ul style="list-style-type: none"> a) 35mm (Working volume 2.0 – 3.0 mL), - 30 Bags b) 60mm (Working volume 3.0 – 5.0 mL), - 30 Bags c) 100mm(Working volume 8.0 – 10.0 mL) – 30 Bags <p>>Unsurpassed safety in handling during transportation and while working due to corrugated handling ring >Special design inside of the dish lid to trap liquid and prevent spills during transportation or incubation >Pronounced rim on dish lid and exact fitting of lid and bottom to ensure sturdy, secure stacking >Easy differentiation of lid and dish bottom to prevent unintended removal of the lid >Packaging to combine tool-free opening, resealable top and side for tape-free closing, and an easy solution to shrink the package for space-conscious storage >SAL 10⁻⁶ >Certificates for leachables, trace metals, cytotoxicity etc. should be made available >Material – polystyrene</p>	1

		<p>>Purity grade - Sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free. Non-cytotoxic</p> <p>D) Cell culture Plates with lid (Tissue culture treated)-</p> <p>a) 6 well, - 60 plates</p> <p>b) 12 well, - 60 plates</p> <p>c) 24-well, - 60 plates</p> <p>d) 48 wells, - 60 plates</p> <p>e) 96 wells) - 60 plates</p> <p>with below features:</p> <p>> To prevent the edge effect and use of more wells by filling the moat surrounding the outer wells with liquid</p> <p>>Level out well-to-well temperature shifts outside the incubator by chimney-well design to enables filling of the inter-well spaces</p> <p>>Robust stacking performance by pronounced rims on plate lid and excellent fitting of lid and base when used in stacks</p> <p>>Minimized surface contact and reduced contamination risk by lid taps under the plate</p> <p>>Easy and fast well identification by contrast rich individual well ID and alphanumeric labeling</p> <p>>Easy differentiation of lid and plate bottom due to a pronounced corrugation and wider sized base</p> <p>>Optimized gas and temperature transfer when incubating in stacks by pronounced ventilation gaps</p> <p>>Optimized microscopical performance with enhanced planarity, reduction of meniscus and clarity of the material</p> <p>>Material – polystyrene</p> <p>>Purity grade - Sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free. Non-cytotoxic</p> <p>E) Cell culture imaging dishes with lid</p> <p>>TC treated surfaces for efficient growth of adherent cells</p> <p>>All plate types to have a low skirt design to perfectly suit to access all wells with immersion objectives</p> <p>> Excellent signal-to-noise ratio is expected regardless of the plate bottom type</p> <p>>Excellent planarity of all plates to ensure unsurpassed manual handling and reliable results in automated devices</p> <p>>Individually wrapped for reliable purity</p> <p>> Ultrathin film bottom to allow high gas permeability and UV-light transparency, ideal for phototoxicity and hypoxic studies</p> <p>>Material - glass/polystyrene</p> <p>>Bottom shape – flat</p> <p>>Max. RCF – 300 x g</p> <p>>Purity grade - Sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free. Non-cytotoxic</p> <p>>170 µm coverglass</p>	
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		<p>F) Cell culture imaging slides</p> <ul style="list-style-type: none"> > Material - glass/polystyrene > No. of chambers– Single Chamber&2 Chamber >Purity grade - Sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free. Non-cytotoxic > 170 µm coverglassproviding excellent signal-to-noise ratio in fluorescent staining protocols >Facilitated growth of most adherent cell types due to innovative TC treated glass surface >Chambers and lids to show high chemical resistance, so fixation even with acetone is possible without problems >Benefit from easy and tool-free removal of the chambers with minimized glue residues >Precise planarity to support high resolution microscopes and autofocus systems 	
16	Cell culture filtration and sterilization accessories	<p>A) – 02 Qty. Vaccum pump 220volts/50 Hz-</p> <ul style="list-style-type: none"> • Maximum vaccum- 600mmHg, • max. flow 13L/min, • 1400rpm motor rotation, 1/8 HP, Pole 4P, • pot thread 1/8 PS. • Noise level 54db <p>B) - 01 Qty. Vaccum trap kit-1000ml</p> <p>C) - 02 Qty. Membrane filter holder -47mm</p> <p>D) -02 Qty. Membrane filter paper (0.2µm)</p> <p>E) -02 Qty. Reusable bottle top filter- 250 ml</p> <ul style="list-style-type: none"> • autoclavabile, resuable • Filter housing screwed onto standard glass bottle (45 mm neck size. • With removanle membrane support plate <p>F) – 04Qty. Filtering flask (500 ml)</p> <ul style="list-style-type: none"> • single piece moulede flasks • implosion proof and withstand vaccum upto 29 in-Hg. • Tubulation at 45° 	
17	Double Distillation unit, demountable boiler panel series, vertical type	<p>➤ <u>Water output cap.(approx.)as follows:</u></p> <ul style="list-style-type: none"> c) 1.5ltr, phase (single,3kw), cooling requirement (1ltr/min) – 01 Qty. d) 5ltr, phase (single,4x2.2 kw), cooling requirement (2.5 ltr/min) -01 Qty. <p>➤ <u>Electrical measurements-230-250 volts</u></p>	

		<p><u>Quality specifications</u></p> <ul style="list-style-type: none"> ➤ Biological activity- Pyrogen free glass ➤ Conductivity S/cm – 1x10 ➤ Organic carbon(Toc) - <500 ➤ Total solids mg/lit- <0.1 ➤ Standard plate count- 0 ➤ KMno 4 color retention- 1 hr ➤ UV absorbance at 254 nm- 0.007 	
18	MULTIMODE MICROPLATE READER	<p>Monochromator-based absorbance from 200 nm to 999 nm, filter-based top fluorescence and luminescence.</p> <p>General:</p> <p>Detection mode: UV-Vis absorbance, fluorescence intensity, luminescence. End point, kinetic, area scanning, absorbance spectral scanning (under software control).</p> <p>Microplate types: 6- to 384-well plates.</p> <p>Other labware (optional accessories): Micro-Volume Plates.</p> <p>Shaking: Linear, orbital, double-orbital.</p> <p>Full data analysis and reporting (under software control).</p> <p>Absorbance:</p> <p>Light source: Xenon flash lamp</p> <p>Detector: Photodiode</p> <p>Wavelength selection: Monochromator</p> <p>Wavelength range: 200 – 999 nm, in 1 nm increments</p> <p>Monochromator:</p> <p>Bandwidth: ≤5 nm</p> <p>Wavelength accuracy: ±2 nm</p> <p>Wavelength precision: ±0.2 nm (standard deviation)</p> <p>Dynamic range: 0 to 4.0 OD</p> <p>Pathlength correction: Yes (under software control)</p> <p>Optical density:</p> <p>Accuracy: <1% at 2.0 OD <3% at 2.5 OD</p> <p>Linearity: <1% from 0 to 2.5 OD</p> <p>Repeatability: <0.5% at 2.0 OD</p> <p>Stray light: 0.03% at 230 nm</p> <p>Reading speed (kinetic): 96 wells: 12 seconds 384 wells: 23 seconds</p> <p>Fluorescence Intensity</p> <p>Light source: Halogen lamp</p> <p>Detector: PMT</p> <p>Wavelength selection: Bandpass filters</p> <p>Wavelength range: 200 – 700 nm (low noise PMT)</p> <p>Dynamic range: 7 decades</p> <p>Sensitivity: Fluorescein 2 pM</p> <p>Reading speed (kinetic): 96 wells: 24 seconds 384 wells: 76 seconds</p> <p>Luminescence</p> <p>Wavelength range: 200 – 700 nm (850 nm option)</p> <p>Dynamic range: 7 decades</p> <p>Sensitivity: 10 amol ATP.</p> <p>Software: Reader control, advanced data analysis, Excel export Control</p>	1

		<p>through USB or serial port. Software offers a logical interface designed to easily flow from reading parameters, to plate layout, to powerful data reduction, and finally to flexible data output options. The results of this intuitive design, including the exclusive StepWise™ protocol and data reduction tools and the power of software data reduction, will be evident in increased laboratory efficiency.</p> <p>Physical Characteristics</p> <p>Connectivity: (1) USB 2.0 ports for computer control</p> <p>Dimensions: 12” H x 15” W x 15” D (30.5 cm H x 38.1 cm W x 38.1 cm D)</p> <p>Weight: ≤27 lbs (12.3 Kg)</p> <p>Power: External 24VDC power supply compatible with 100-240 volts AC @50-60Hz. 60W maximum consumption.</p> <p>It must be included a Green filter cube.</p> <p>Provide Suitable UPS, Computer & Printer.</p>	
19	-20 deg C Freezer Vertical Type	<ul style="list-style-type: none"> ➤ The instrument should be vertical type. ➤ Temperature Range : System should have operating temperature range of -20°C to -40°C . (factory pre-set at -40°C) ➤ Internal Volume: System should have internal volume capacity of around 280liters . ➤ Refrigeration system: Air cooled. ➤ Advanced air stability: +/- 3°C ➤ It should have manual defrost system. ➤ The system should have Reliable temperature uniformity and air stability performance (tightest uniformity at -40°C set point) ➤ The instruments must have high-density, fluorine free insulation, Heavy-duty construction;. ➤ The instruments must have lockable, high quality steel door for easy operation. ➤ The instruments must have minimum drawers: 4 nos ; 2 flip-top compartments; ➤ Access Port: Two 1 inch (25 mm) access port standard ➤ It should have High and low visual temperature and audio alarms ➤ Power requirements : 230 V, 50 Hz, single phase ➤ It should be provided one year warranty ➤ It must provided a suitable servo voltage stabilizer require for operation. ➤ Prompt and efficient after-sales service should be available from locally or from Kolkata. 	1
20	Lab Refrigerators(Dual Glass Door)	<ul style="list-style-type: none"> ➤ The instrument should be vertical type. ➤ Temperature Range : System should have operating temp. +1 deg C to + 12 deg C, factory preset to + 4 deg. ➤ Internal Volume: System should have internal volume capacity of around 1000 litres . ➤ Refrigeration system : Air cooled. ➤ It should have automatic defrost maintains optimal cooling capacity. ➤ The system should have digital temperature controller with intuitive interface and reliable temperature uniformity and air stability 	

		<p>performance.</p> <ul style="list-style-type: none"> ➤ The instruments must have dual interior fan for forced-air circulation. ➤ The instruments must have lockable, dual-pane glass doors . ➤ Internal Lighting : Interior cabinet must have Interior lighting, keyed on / off switch on control panel . ➤ The instruments must have minimum 12 shelves ➤ Access Port: Two 1 inch (25 mm) access port standard ➤ Pad Lock Compatible : Standard. ➤ Door Lock : Sturdy integrated key lock for easy operation. ➤ Power requirements : 230 V, 50 Hz, single phase. ➤ It should be provided one year warranty ➤ It must provided a suitable servo voltage stabilizer require for operation. ➤ Prompt and efficient after-sales service should be available from locally or from Kolkata. 	1
21	Specification for (Liquid Nitrogen) LN2 Container	<p>Effective way to store biological samples in canes. The system can safely hold samples for extended Periods of time without replenishing LN2</p> <ul style="list-style-type: none"> • LN2 Capacity: 34.8 L • stainless canisters of different volumes • canisters have 6 unit and comes along with 2.0ml • Canister handles are color-coded for easy canister identification • Durable aluminum construction and vacuum insulation • Narrow-mouth design minimizes LN₂ evaporation • Durable aluminum construction and vacuum insulation • Lockable lid and optional low level alarm enhance sample security • Application : Portable sample Storage Vessel • Level indicator with cry alarm • Roller bases for easy portability • Total vial capacity (6/cane)-720 • Total straw capacity (10/cane)-1200 • Daily evaporation rate of 0.0 to 0.35 It/day • Static Holding time 193 Days • Neck diameter 3.5 in / 8.8 cm • Static Evaporation rate -0.5-0.7 litres per day Approx • External Dimension (D x H): 18.2 x 26.6 in (47.2 x 67.6 cm)approx • Shipping weight : 18.Kgapprox <p>Instrument have CE Certified A single 1.5/2 Lit portable Liquid Nitrogen can for regular sample handling should accompany with the 34.8 L LN can.</p>	1
22	Analytical Balance	<ul style="list-style-type: none"> ➤ Digital display having range upto 220gm and LC 0.1mg/0.0001gm with full Tare facility ➤ Pan Size: 90mm (Dia) ➤ Setting Time: 3 Sec. or Better ➤ The Balance should be Fully Internal Adjustment/ Calibration Technology. ➤ The Balance should have Die Cast Housing with Chemical Resistant and shall have Overload Protection upto 100kg ➤ Sensitivity Temperature Drift: 2.0ppm/°C ➤ PC/Printer compatibility ➤ Should cover with a glass Draft shield. 	1

		<ul style="list-style-type: none"> ➤ The Balance should be supplied with a Dust Proof Cover. ➤ Power Supply: 220V/50Hz ➤ Automatic Reminder: Balance will remind if service required for routine accuracy test ➤ GWP – Good Weighing Practice - Based on Global Weighing Guideline ➤ Service/repair back up of the equipment shall be available in Kolkata. 	
23	SOXLET	<ul style="list-style-type: none"> ➤ Extraction apparatus FAT 4 with solvent drain tap on 4 samples and individual control of each sample, 250 ml. (incl. soxhlet extractor, dimroth condenser, ro flask, ➤ No. of samples : 04 ➤ Volume : 250 ml. ➤ Power : 3 KW. ➤ Maximum Heating Temperature : 350°C+ 10% ➤ Dimension with racks (without glass parts) : 556x340x600 (wxdxh) mm ➤ Weight : 12 kgs. 	
24	Hot air oven	<p><u>Description:-</u> Outside made of mild steel with powder coated paint. Inside made of anodised stainless steel. The double walled door asbestos gasket lining is fitted o heavy brass cast chromium plated hinges and has a latch type lock. Temperature can be controlled from few degree above ambient to 250° c by thermostat. Heating elements are placed in the ribs at the bottom and sides. Built in L-shape prismatic thermometer, with two shelves, works on 220/230 v AC supply with or without air circulating fan.</p> <p><u>Accessories:-</u></p> <ol style="list-style-type: none"> a. Air circulating fan b. Timer 0-24 hours c. Microprocessor PID digital temp. Indicator-cum-controller. 	1
25	Magnetic Stirrer	<p>Speed: 100 to 1700 rpm (Constantly adjustable) Maximum stirring capacity: 10L Temperature control: room temperature to 199°C (Constantly adjustable) Highest temperature: 300°C Each machine should come with</p> <ul style="list-style-type: none"> • Variable (Macro) sizes magnetic stirring beads (7 beads for each piece of magnetic stirrer machine) • Micro magnetic stirring beads for each Magnetic stirrer • 1 Magnetic stirring beads retriever for each machine. 	3
26	Rotator	<p>The rotator which is ideal for using on a lab bench; in a small incubator or refrigerator; in a biological cabinet; or in a fume hood or any other place where space is at a premium. It should handle both large and small applications for micro centrifuge tubes and micro test tubes as well as 15 ml and 50 ml tubes.</p> <p>Specifications: Speed: Variable speed control (0-80 rpm) Ambient Temp.Range- 0°C to 40°C Electrical: Speed Control with ON/OFF Switch and protected-fuse with suitable-wire cord.</p>	1

27	Vortex	Specifications: Variable Speed Control Maximum Speed: 3000 RPM Choice of Continuous & Touch Mode Rubber Feet	1
28	UV Transilluminator	<ul style="list-style-type: none"> Designed with an optimized anti-glare surface ensuring uniform UV light distribution. Comes with a UV protection Cover. Facilitated with 200mmx240mm filter <ul style="list-style-type: none"> a. wavelength- 254nm, Filter size in mm-200x210 b. wavelength -312nm, filter size in mm- 200x240 	1
29	Hot plate	<ul style="list-style-type: none"> top plate size-10x10cm, top plate material –ceramic Temp- range 150°c-500°c Maximum load 6-11 kg Power supply 240volt. 	3
30	Non Refrigerated Centrifuge	<ul style="list-style-type: none"> Laboratory centrifuge machine Model-R-8c with Rotor Head 15 ml tube with 16 Place capacity Microprocessor controller with digital display Alphanumeric LCD display of speed & RCF 7 segment LED display of speed Digital countdown timer & continuous run Dynamic brake for quick deceleration Emergency lid lock release Wide variety of rotors & reduction adaptors Stainless steel centrifuge chamber, easy to clean Brushless induction motor with variable frequency drive. Maximum RPM 16000 	1
31	Incubator	<ul style="list-style-type: none"> inner chamber stainless steel Outside made of mild steel with powder coated paint. Inside made stainless steel. The double walled door with asbestos gasket lining is fitted on heavy brass cast chromium plated hinges and has a chromium plated latch type lock. Temperature can be controlled from few degree above ambient to 70°C by thermostat. Heating elements are placed in the ribs at the bottom and sides. Built in L-shape prismatic thermometer, with two shelves, works on 220/230v AC supply with or without air circulating fan. Size- 350x350x350 MM(HWD) , Inches Approx- 14’’x14’’x14’’ Air circulation fan Timer 0-24 hours Microprocessor PID Digital Temp. Indicator-cum-controller Number of shelves -2 With suitable stabilizer 	1
32	Dancing Shaker	Specifications: Three dimensional combinations of rocking and orbital motion, Non slip platform: adjustable from horizontal to a steep angle continuously, Low foaming agitation and uniform mixing capacity at slow	2

		speed, Speed limit: 0-60 RPM.	
33	Electroporation apparatus for cell and molecular biology	<p>The system should have the following:</p> <ul style="list-style-type: none"> ◆ Versatile and modular Electroporator for reproducible transformation of Eukaryotic and Prokaryotic cells (Mammalian, bacterial, yeast & microorganisms.) ◆ Should have both Square wave and exponential decay wave functions for better transformation rate and flexibility of use. ◆ Simple one button pulse delivery, attached cuvette chamber & rapid charge time speed-sample handling. ◆ Should have Pulsetrac circuitary for Arc Quenching thereby maximizing viability of cells. ◆ Should have Preset Optimized programs for common bacterial, fungal and mammalian cell lines ◆ Output: 10-3000 Volts range with 10V precision ◆ 25 to 3275 uF Capacitance with minimum increments of 10uF. ◆ Resistance: 50 – 1000 Ohm with minimum increments of 50 ohm ◆ Square wave timings: 10-500V, 0.05 to 10ms duration ◆ Compact space saving design. ◆ Display of Time constant & Actual Voltage delivered ◆ Should come with minimum 50 cuvettes each of 0.4cm, 0.2cm & 0.1cm Cuvettes. ◆ Should have Preset Optimized programs for common bacterial, fungal and mammalian cell lines. ◆ Should have an inbuilt storage of more than 100 programs. ◆ Should save a pulse parameter and results of previous 100 experiments. ◆ System should have preset protocols for minimum 10 Mammalian Cell Lines, 5 Bacterial and 5 Fungal strains. ◆ System should come with Gene Pulser Electroporation Buffer compatible with the system (2X 30 ml) 	1
34	HIGH SENSITIVE SPECTRAL CONFOCAL WORKSTATION	<p>The imaging workstation should include high sensitive spectral confocal imaging for cell lines, tissues and model organisms. The system should be available with the below mentioned configuration as mentioned below:</p> <p>A. Motorized Inverted Fluorescence Research Microscope:</p> <ol style="list-style-type: none"> a) Fully Motorized Inverted Fluorescence Research Microscope for BF/DIC/Fluorescence preferably with dedicated touch screen TFT display for controlling motorized components of the microscope. b) Mot. X-Y stage with Universal sample holders for slides, 35/60 mm Petri dish, labtek chambers with multipoint, tile and mosaic imaging software. c) LED / Halogen illumination for transmitted light & 120W metal halide illumination or LED illumination with higher lifetime for Fluorescence should be offered. In case of LED Illumination in fluorescence mode , min 4 LED's should be part of the configuration (375nm, 477nm, 552nm and 640 nm or equivalent) d) Motorized 6 position DIC nosepiece, Universal Motorized Condenser NA 0.55 or better with modules for DIC, 6 position fluorescence turret for accommodating fluorescent filters for 	1

		<p>sample visualization.</p> <ul style="list-style-type: none"> e) High precision Z-focus drive with step size of 15 nm or better. f) High resolution confocal grade objectives of 10x/0.40, 20X/0.80, 40x/1.30oil, 60/63x/1.40oil immersion. g) Shift free DIC accessories for all objectives. h) Band pass fluorescent filters for DAPI, GFP, Cy3 and Cy5 should be offered. i) An active anti-vibration table with compressed air damping, bread board table top with M-6 threading for the complete microscope system. j) Monochrome cooled CCD camera, 1/1.2 '' Chip with 2.3 million net effective pixel resolution (USB III based) controlled by the same confocal software for multichannel, z stack, fast time lapse wide field imaging with frame rates of 30 fps or better at full format. k) Facility for live cell imaging including Incubation system with Temperature, CO₂ , humidity control and complete laser safety regulations should be offered. The parameters for Incubation system should be controlled by confocal software as well as TFT display of the microscope. <p>B. Spectral confocal imaging unit with high sensitive detectors:</p> <ul style="list-style-type: none"> a) Laser point scanning and Confocal detection unit with at least 3 channels for simultaneous detection of 3 fluorophores in high sensitivity mode. Detectors should be capable of working in Intensity and Spectral mode Imaging. System should be a combination of min or more 3 GaAsP/HyD detectors. b) Scanner unit should have laser ports for at least 4 lasers to be integrated with the system. c) The scanner should have real "ROI" scan capability for fast scan. Maximum scan resolution should be at least 6Kx6K or better per channel and should reduce to 16X16 resolution. d) Scan speed should be 7-10 fps or better @ 512x512 and should be able to increase up to 200 fps@512X16 or better. e) Transmitted PMT or Detector for laser based DIC imaging should be included. f) The scan field diagonal should be min 18 mm or better. Scan Zoom range minimum 1X to 40X with increments of 0.1X. Scan rotation of 200 degrees or better should be available. g) A provision desired for attaching co-relative accessories for superimposition of confocal and scanning electron microscope (SEM) images as future upgradation. It should consist of software and universal sample holder with at least three-position calibration marker for combining with quoted confocal system and SEM for performing co-relative microscopic imaging studies <p>C. Solid State Laser module with AOTF control:</p>	
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- a) 405 nm, b) 488 nm, d) 561 nm e) 640 nm.

All lasers should be connected to the scan head through fiber optic cable and should be controlled through AOTF or direct modulation for fast laser switching and attenuation in pixel precise synchronization with the laser scanner for Real ROI scan for FRAP, Photo activation/conversion experiments. All the laser lines should be controlled through a computerized AOTF device for fast laser switching and attenuation.

D) Realtime OnlineHardware based Super resolution Imaging:

- a) Fully automated and motorized SR attachment with suitable high sensitive Detector for complete Vis Spectrum.
- b) Lateral resolution of 120 nm or better and Axial resolution of at least 350 nm or better should be expected out of the system. Online processing of data for SR Imaging should be part of standard system.
- c) Detection should be based on GaAsP or high sensitive detectors.
- d) Should be able to perform live cell SR Imaging with frame rates of at least 15-20 fps @512X512 pixel resolution . All laser lines for Confocal Imaging should be used for imaging in SR mode.

D) Control computer and Monitor:

Latest 64 bit control computer with Intel Xeon Processor, DDR RAM 64 GB or better, HDD: 4TB SATA upgradable to 8 TB or better, DVD, SuperMulti SATA +R/RW, Graphics card 8 GB or better, Gigabit Ethernet, Win 10 64 bit , USB 2.0/3.0, Fire wire. Large 32" LCD TFT monitor.

E) System control and Imaging Software:

- a) Software should be capable of controlling Motorised components of microscope, digital camera, confocal scan head, laser control including AOTF and Image acquisition & processing for confocal and super resolution imaging
- b) Saving of all system parameters with the image for repeatable/reproducible imaging.
- c) Line, curved line, frame, Z-stack, Time series imaging capabilities.
- d) Real ROI bleach for FRAP, Photo-activation/conversion experiments.
- e) Standard geometry Measurements like length, areas, angles etc including intensity measurements.
- f) Advanced 3D image reconstruction with rendering from a Z-stack image series.
- g) Co-localization and histogram analysis with individual parameters.

		<p>h) Spectral un-mixing with fingerprinting for separation of</p> <table border="1" data-bbox="511 163 1453 571"> <tr> <td colspan="2">Details of other terms and condition</td> </tr> <tr> <td>Warranty</td> <td>3years</td> </tr> <tr> <td>AMC</td> <td>2 years</td> </tr> <tr> <td>Trained Man power</td> <td>1 year</td> </tr> <tr> <td>Suitable UPS</td> <td>1</td> </tr> <tr> <td>Suitable Dehumidifire</td> <td>1</td> </tr> <tr> <td>Suitable AC</td> <td>1</td> </tr> <tr> <td>CO₂ Cylinder for live cell incubator with regulator</td> <td>1</td> </tr> </table> <p>overlapping excitation/emission spectra of fluorophores.</p> <p>D. <u>Essential Accessories:</u></p> <p>Essential reagent kit required to study cell development, apoptosis, signalling under confocal microscope:</p> <ol style="list-style-type: none"> a. Fluorescent tagged and untagged primary antibodies b. Fluorescent tagged secondary and Alexa Fluor antibodies for fluorescence c. Mitochondrial membrane potential detection fluorescent probes and kit, Mit C. Nuclear staining fluorescent dyes, Nucleic acid staining fluorescent dyes, R probes, Fluorescent probes for Cell membrane, D. Cell apoptosis detection fluorescent probes E. ER-tracker, Lyso Tracker F. Fluorescent microscopy grade immersion oil G. Chamber slide and Glass bottom dishes. 	Details of other terms and condition		Warranty	3years	AMC	2 years	Trained Man power	1 year	Suitable UPS	1	Suitable Dehumidifire	1	Suitable AC	1	CO ₂ Cylinder for live cell incubator with regulator	1	
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Suitable AC	1																		
CO ₂ Cylinder for live cell incubator with regulator	1																		
35	Field Emission Scanning Electron Microscope (FESEM)	<p>The Field Emission Scanning Electron Microscope (FESEM) should have the state-of-the-art & cutting-edge latest technology with related accessories for analyzing variety of materials from various disciplines in the university including materials & biological samples.</p> <ol style="list-style-type: none"> 1. Make: Imported reputed brand 2. Electron Source: Schottky Thermal Field Emitter 3. Electron Optics: The system electron optics should have Beam Deceleration/ Beam Booster technology/ Gentle Beam technology or equivalent technology for high resolution imaging at low KV. The lens design should have Magnetic/Electrostatic objective lens assembly/ hybrid lens assembly or equivalent lens system for getting high resolution imaging of magnetic materials with shorter working distance. The lens system must be water-cooled. The system must have motorized aperture. Field of view should be same for both High vacuum & low vacuum mode. 	1																

4. **Resolution:** @ 15 kV : 1.0 nm or better, @ 1 kV : 1.6 nm or better, @ 15 kV : 2.0 nm or better in low vacuum mode. All the resolution should be demonstrated during installation
5. Everhart-Thronley (E-T) secondary electron detector, In-lens/in-column/upper SE detector with automatic brightness/contrast adjustment
6. **Backscatter Detector (BSD):** 5 Segment SSD Type HD BSD
7. **Maximum Scan Speed:** 100 ns/pixel or higher
8. **Accelerating Voltage:** 0.02 – 30 kV - all voltage settings should be adjustable through software
9. **Magnification:** 10× – 1,000,000× or better
10. **Probe Current:** 4 pA – 100 nA or higher
11. **Image Frame store:** 32 k × 24 k pixels
12. **Ports:** 10 or more for retrofitting accessories including EDS etc
13. **EDS Ports:** 2 (1 dedicated port)
14. **Vacuum System:** The system should have both high vacuum and low vacuum (up to 133 Pa) mode of operation having IGP, TMP and RP. The system should have pumping time of less than 5 min after specimen exchange. The switching over between High & Low vacuum should be seamless and without insertion of mechanical apertures.
15. **Variable Pressure:** 2 – 133 Pa
16. **Stage Type:** 5 axis Compucentric stage
17. **Stage travel :** X : 125 mm, Y : 125 mm, Z : 50 mm, T : -10 to +90 degrees, R : 360° Continuous. The stage should accommodate sample holder with at least 8 no of specimen stub of 1 cm² or more
18. **Computer:** Suitable branded computer with laser printer
19. **Software:** Suitable software for data acquisition and analysis
20. **Accessories:** All other related accessories (including suitable vibration isolation table) to be offered. Also necessary equipment for sample preparation prior to SEM characterization should be provided:
 1. Gold Sputter Coater
 2. Critical Point Dryer
 3. Multiple Sample Holder- 1 No.
 4. Specimen Stub – 50 Nos.
 5. Conductive Carbon Tape – 5 rolls
 6. Specimen Preparation Kit
 7. Joy stick
 8. Control panel
 9. Chiller
 10. Compressor
 11. Consumables: Silver paste, graphite paste, rotary pump oil, apertures (2 sets), tool kit, vacuum grease should be supplied

		<p>with the system</p> <p>12. Interface between FESEM & EDS</p> <p>13. Additional FEG source: 1 no. - as & when required basis</p> <p>21. EDS: The FESEM system should have integrated Energy Dispersive Spectrometer (EDS) for elemental analysis with:</p> <ul style="list-style-type: none"> - With liquid nitrogen free silicon drift detector type, Peltier cool detector - Detector Active area: 30 mm² or more - Energy resolution: 129eV or better - Elemental Detection range: Be to Am - Relevant software for data acquisition and analysis - Both Quantitative and Qualitative elemental analysis - Seamless integration with FESEM <p>22. Spares: Commitments to supply spares for at least 10 years to be ensured. Separate Spare kits for this laser should be quoted as optional items.</p> <p>23. Warranty: Minimum one-year warranty should be offered. Product support for period of minimum five years after warranty period to be ensured by vendor/supplier.</p> <p>24. The system shall have certification from European EC/UL/ISO 9001 for quality assurance.</p> <p>25. UPS: 10KV Online UPS with 30 mins battery backup to be provided</p> <p>26. A 2 Ton Air Conditioner to be supplied with the system</p> <p>27. Manpower/operator should be provided for one year.</p>	
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FOR ANY CLARIFICATION REGARDING TENDER PLEASE CONTACT WITH COOCH BEHAR PANCHANAN BARMA UNIVERSITY E-MAIL ID – INFO@CBPBU.AC.IN

[TENDER FEE: RS.2000/- (RUPEES TWO THOUSAND ONLY), NAME OF THE A/C: COOCH BEHAR PANCHANAN BARMA UNIVERSITY, SAVINGS ACCOUNT NUMBER: 32741316141, IFSC CODE: SBIN0000058]

1. General Instructions:

In the event of e-tendering, intending bidder may download the tender documents from the website: <http://wbtenders.gov.in> directly with the help of Digital Signature Certificate (DSC) or from the Cooch Behar PanchananBarma University website www.cbpbu.ac.in.

2. Submission of bids:

Both Technical Bid and Financial Bid are to be submitted concurrently duly digitally signed by the Company personnel who is in the pay roll of the Company (having Authorization from the Company management) in the website [http:// wbtenders.gov.in](http://wbtenders.gov.in). All papers must be submitted in English language.

3. Time Schedules for the e-tender:

The Time Schedule for obtaining the Bid Documents, Pre-Bid meetings, the submission of bids and other documents etc. will be as per the list provided in Clause No. 10 given below.

4. Eligibility for Quoting:

Manufacturers or Dealers/Distributors/Agents duly authorised by the manufacturers who are able to supply the assured quantities as per requirement & have requisite Annual Average Turnover, as per clause no. 5, are only eligible for quoting. Manufacturers not having the capability to supply the required quantity solely need not apply. Failure of submission of declaration of full supply will lead to cancellation of tender.

Further, vendors who were declared black listed and/or insolvent by any Govt. Concern/any Institutions in the Country for particular item or items are not eligible to participate in the current tender for that item or items.

5. Annual Turnover Requirements:

Vender having average annual Turn Over for last three financial years is more than Rs.30 lakh in India or equivalent foreign currency in the respective foreign country for the year 2016- 17, 2017-18, 2018-19 are eligible to participate in the Tender.

6. Submission of Tenders

6.1 General process of submission

Tenders are to be submitted online through the website stated in Clause 1. All the documents uploaded by the Tender Inviting Authority form an integral part of the contract. Tenderers are required to upload all the tender documents along with the other documents, as asked for in the tender, through the above website within the stipulated date and time as given in the Tender. Tenders are to be submitted in two folders at a time, one is Technical Bid and the other is Financial Bid. The tenderer shall carefully go through the documents and prepare the required documents and upload the scanned documents of originals in Portable Document Format (PDF) to the portal in the designated locations/folders of Technical Bid. He needs to fill up the BOQ in the designated cell and upload the same in designated location of Financial Bid. The documents uploaded are virus scanned and digitally signed using the Digital Signature Certificate (DSC). Tenderers should specially take note of all the addendum/corrigendum related to the tender till the bid submission ends. Tenderers should in general upload the latest documents as part of the tender, however, in case of failure in uploading such documents, it will be deemed that they (tenderers) have taken note of such latest documents including addendum/corrigendum, if published till the bid submission ends.

6.2 Technical Bid

The Technical Bid should contain scanned copies and/or declarations in the following standardised formats in two covers (folders):

I. Technical File (Statutory Cover) containing:

1. **Notice Inviting Tender (NIT)** – The NIT as published is to be downloaded and then uploaded the same digitally signed (*to be submitted in “NIT” folder*).
2. **Annexure –**
 - a) Basic Information (Vide Annexure I) (*to be submitted in “Annexure” folder*)
 - b) Application for Tender - (Vide Annexure II) (*to be submitted in “Annexure” folder*)
 - c) Authorization letter - (Vide Annexure III) (*to be submitted in “Annexure” folder*)
 - d) Affidavit Proforma - (Vide Annexure IV) (*to be submitted in “Annexure” folder*)
3. Technical details of the Items Quoted (Bidders must submit Technical specification along with Catalogue of the

item quoted in “**Technical Details**” Folders.

4. Bidder must submit Audited Balance Sheet and Profit and loss Account for last 3 (three) financial year namely 2015-16 , 2016-17 & 2017-18 in “**Accounts**” folder.

Note: Tenders will be summarily rejected if any item in the statutory cover is missing.

II. My Document (Non-Statutory Cover) containing as follows:

Sl.No.	Category	Sub-Category	Sub-Category Description
1	Certificates	Certificates	PAN Card of the Bidder
			VAT/ CST /GST Registration Certificate
			Exemption Certificate for paying EMD for the current financial year (if any)
2	Company Details	Company Details 1	Trade Licence/Enlistment Certificate
			Registration with Registrar of Companies
			Memorandum of Articles for Limited Companies.
3	Credential	Credential 1	<ul style="list-style-type: none"> a) Copy of the purchase order for supplying Similar nature of items at least for last 2 years in an Institute of Higher Learning b) Brief User List preferably for users in West Bengal in an Institute of Higher Learning
4	Financial Information	Payment Certificate 1	Income Tax Returns submitted for the Assessment year 2016-17
			Income Tax Returns submitted for the Assessment year 2017-18
			Income Tax Returns submitted for the Assessment year 2018-19
		Payment Certificate 2	VAT/CST/GST Returns (of the last quarter) for the year 2016-17
			VAT/CST/GST Returns (of the last quarter) for the year 2017-18
			VAT/CST/GST Returns (of the last quarter) for the year 2018-19

6.3 Financial Bid

The Financial Bid should contain the following document in one cover (folder):

Bill of Quantities (BOQ): The tenderer is to fill-up the designated cell as marked by the University in the BOQ under online mode through computer for preparing their quotation and thereafter tenderer

will have to upload the same after digitally signed as submission of their quotation (Only downloaded copies of the BOQ as available in the web portal are to be uploaded without changing the name of the BOQ file after virus scanned and digitally signed by the tenderer)

7. The tenderers are not required to submit hard copies of Technical File (Statutory) or My documents (Non-Statutory). Submission of hard copy of Financial Bid is strictly prohibited and only be submitted through on line through NIC portal.

8. Evaluation of the tenders

During the tender evaluation process, the “Technical Bid” will be opened first. Those Bidders who have qualified in respect of the essential & other requirements in “Technical Bid” will be identified and their financial bid will be opened. The financial bid of those Tenderer failing to meet the technical & other requirements laid down in the tender will not be opened and be rejected. The Tenderer offering the item found suitable and as per the tender specifications will only be selected. Final selection of the lowest bidder in respect of Financial Bid is subject to further verification. The Financial Bids of only those tenderers who have been considered as Technically Qualified will be opened. If found suitable in the context of above pre-qualification etc, the Tenderer quoting the lowest rate will be considered as successful.

9. TERMS & CONDITIONS REGARDING PURCHASE POLICY OF TENDERING AUTHORITY:

9.1 **Bid Information:**

- a) **Partial Quotation within the same item serial number as mentioned in BOQ and also in this NIT will not be accepted and tender will be liable for cancellation.**
- b) All duties, taxes and other levies payable by the contractor under the contract shall be included in the total price but should be indicated separately in the price bid.
- c) The rate quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- d) Currency will be made either in INR or from any of the foreign currencies like USD, EURO and JPY.

9.2 **Evaluation of Quotation:** The Purchaser will evaluate and compare the quotations determined to be substantially responsive stage wise. Firstly, Technical Bid will be evaluated based on and thereafter Price Bid for technically qualified bidders will be evaluated for selection of vender.

9.3 **Award of Contract: The contract shall be made item wise as per Item Serial number of the List of Items as shown in Clause 15.** The purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive both technically and commercially. Purchaser reserves the right to reject any or all the tender, wholly or partly, without assigning any reason thereof and shall not be bound to accept the lowest bid.

9.4 **Warranty:** The vendor shall be fully responsible for the comprehensive onsite warranty (3/3/3-part/labour/onsite) in all respect of the equipment’s, accessories etc. including spares and services for a period of three years from the date of installation. Warranty will be effective from the date of joint installation Report.

9.5 **Adequate support service facility:** The bidder/manufacturer should have adequate service support centre in Kolkata/Siliguri/Cooch Behar for any emergency breakdown/fault offering facility within 48 hours and should be agreeable to provide AMC facility after the warranty period.

9.6 **Training Facility:** User training regarding the operation of the equipment’s shall be arranged by the

supplier/vendor at no extra cost.

- 9.7 **Manufacturer's Authorisation:** Document in support of Manufacturer/Dealer and Service Provider has to be submitted along with the tender paper. If the bidder is not the manufacturer, proper manufacturer's authorization and warranty from manufacturer is required.
- 9.8 **Credentials:** Documents of previous experience of the job, at least 2 years, must be submitted along with the tender. Documents related to the previous supply of same types of items in at least (04) four recognized National Level Institutions.
- 9.9 **DSIR Certification:** The Cooch Behar Panchanan Barma University will provide the necessary certificate at the time of purchase.
- 9.10 **Make & Model:** Bidder must mention Make and Model in the Information Sheet as given vide Annexure-I and must send the product details/catalogue/brochure in the "**Technical Details**" folder.
- 9.11 **Time Schedule:** The supply and installation work must be completed within 15 days from the date of receipt of the purchase order.
- 9.12 **Validity of offer:** A bidder should spell out in the tender that it shall remain valid for a minimum period of three months from the date of opening of the tender and during this period, the bidder shall not be entitled to revoke or cancel its offer.
- 9.13 **Place of delivery: DEPARTMENT OF ZOOLOGY, COOCH BEHAR PANCHANAN BARMA UNIVERSITY, COOCH BEHAR -736101.**
- 9.14 **Payment Schedule:** 100% of the bill value will be paid after satisfactory installation/delivery of the equipments.
- 9.15 **Performance Security: Successful bidder should deposit Performance Security money equivalent to the 10% of the order value in the form of DD/Bank Guarantee immediately before issuing purchase order from the University. Such security will be refunded after completion of the warranty period in normal case without any accrued interest. University may forfeit the Security Money in the event of the following circumstances:**
- i) Selected bidder withdraws the bid before expiry of its validity but after receipt of the Purchase Order.
 - ii) Selected bidder does not accept the order after issuing the same or fails to enter into a contract within validity period of offer.
 - iii) Selected bidder fails to supply the items within the scheduled time as specified in the Purchase Order
 - iv) If before expiry of the warranty period, the supplied items break down or do not function satisfactorily due to the cause related with the item itself or for its installation and not for any reason caused by the University Authority and the supplier denies to take the responsibility to make the supplied items in order.
 - v) In case of any false submission /statement by the bidder.
 - vi) In case of any refusal to abide by terms and conditions or refusal to enter into a written agreement as per prefixed terms and conditions.
- 9.16 **Quantity Changeability:** Quantity as stated in the tender document may subject to change at the time of issuing purchase order due to the fund crunch or for other valid reasons.
- 9.17 **Requisite Documents to be submitted:** Bidder must have adequate documents relating to Trade License and updated returns for Income Tax, VAT, GST Audited Statement of Accounts and other documents as sought for under Clause 6.2.II of this tender.

9.18 **Turnover Criterion:** Bidder must have average annual turnover of more than Rs.30 lakh in three financial year ending 2017-18.

9.19 **Disposal of Disputes/ Damage:** In case of any dispute/damage, the University's decision will be treated as the final and conclusive. All legal actions are subject to Kolkata/ Cooch Behar jurisdiction only.

9.20 **Conversion of FC Rate:** Generally, the West Bengal Government Portal is equipped enough for conversion of Foreign Currency (FC) rate into INR. In case of any problem arising out of the West Bengal Government Portal for e-tender regarding the conversion rate against foreign currencies quoted by the bidders in the BOQ, the conversion rate as existing in the official website of the Reserve Bank of India (RBI) as on the date of opening the Financial Bid will be considered for Financial Bid Evaluation.

Discretion of the University:

9.21 University may take decision about non-purchase of the said equipment even after selection of vendor due to its fund constraints.

9.22 University may seek documents from the bidder in addition to the scanned documents sent by them at the time of uploading technical bid for verification and evaluation of tender.

9.23 University reserves the right to relax any clause as stated herein above for selection of responsive vendor.

9.24 The university reserves the right to accept or reject any or all the submitted quotations without assigning any reason whatsoever even it comply all condition.

10. Dates & Information:

Sl. No.	Activities	Date & Time
1	Date of uploading of N.I.T. Documents in the e-tender portal of NIC : https://wbtenders.gov.in	05.08.2019
2	Documents download (online)	05.08.2019 (from 06.00 p.m.)
3	Bid Submission Start Date(on line)	05.08.2019 (from 06.00 p.m.)
4	Bid Submission Closing Date (Online)	26.08.2019 (up to 06.00 p.m.)
5	Bid Opening Date (Online) – Technical Bid	28.08.2019 (from 06.00 p.m.)
6	Date of uploading list for technically qualified bidder (online)	To be notified
7	Date of opening of Financial Bid	To be notified
8	Date of uploading of list of bidders along with the approved Rate	To be notified

11. Opening the financial bid as per schedule will BE NOTIFIED LATER ON.

Financial bid can be seen & accessed by the bidder through the NIC Portal on line after opening of financial bid on line. No objections raised by any Bidder in this respect will be entertained by the University. No informal tender will be entertained in the Bid further.

12. During the scrutiny, if it comes to the notice to tender inviting authority that the credential or any other paper found incorrect/ manufactured/ fabricated, that bidder would not allowed to participate in the tender and that application will be rejected outright without any prejudice.

13. The Tender Selection Committee reserves to right to cancel the N.I.T. due to unavoidable Circumstances and no claim in this respect will be entertained.

14. STEPS TO BE FOLLOWED FOR SUBMISSION OF E-TENDER

1. SEARCHING THE TENDER

- After Login on www.wbtenders.gov.in with DSC Click on Search Active Tenders
- In Keyword writes Tender Reference No. / Tender memo. No. or put Tender ID and click on submit on NIC website.

2. DOWNLOADING THE TENDER DOCUMENTS

- After searching the particular tender, you will find NIT & BOQ and other document, click on those to download and save the documents.
- Then fill the login Id and password which is written on top or your own login id and password; the same page will appear again click on NIT & BOQ to download.
- While downloading the BOQ please do not change the name of the BOQ and quote as per the exact Accounting Unit, as mentioned.

3. UPLOADING DOCUMENTS UNDER “MY DOCUMENTS” FOLDER

- First upload all the “My Documents” before starting the Bid Submission process.
- While starting the Bid submission process after the EMD payment you will find an option “Do you want to submit Other Important Documents”.
- Here click on YES to submit the MY DOCUMENTS and then tick mark the check boxes to tag those documents in that particular tender.

4. UPLOADING DOCUMENTS UNDER “STATUTORY COVER” FOLDER

- First upload Tender Document (Other than BOQ) with digital signature in **NIT Folder**. Thereafter, upload Scanned Copy of all Annexure in the **Annexure Folder**.

5. BOQ

- While first opening the BOQ there is an option at top of the rows. “Security warning Macros have been disabled” Click on Options.
- Select “Enable the content” then OK. This will enable you to visualize the BOQ.
- Select the Currency (INR, USD, JPY, EUR)** type from drop down list while quoting the amount against each item.
- Upload BOQ in the “BOQ Folder” under “Financial Cover” after filling up financial data in the appropriate columns

6. ITEM WISE DETAILS

- Select that item as Yes/No from drop down list which item bidder wants to quote the amount.



REGISTRAR
COOCH BEHAR PANCHANAN BARMA UNIVERSITY
VIVEKANANDA STREET, COOCH BEHAR – 736101

Annexure I

FURNISHING BASIC INFORMATION

(To be furnished in the Company's official letter pad)

1.	Name of the Bidder	
2.	Address for Communication	
3.	Contact Number(s)	
4.	E-mail ID	
5.	Trade Licence No. (Please enclose copy of Trade Licence)	
6.	PAN (Please enclose copy of PAN Card)	
7.	VAT No. (Please enclose copy of VAT)	
8.	Do you have previous experience for supplying similar nature of Items at Educational Institute of Higher Learning? (Please enclose copy of Purchase order & user list, if yes)	Yes/No (Please put tick mark)
9.	Annual Turnover as per Audited P/L ACCOUNTS & BALANCE SHEET	2014-15 :Rs..... 2015-16 :Rs..... 2016-17 :Rs..... Average Annual Turnover: Rs.....
10.	Status of the bidder (Please enclose copy authenticating your status)	Manufacturer/Dealer/Distributor/Selling Agent/Stockiest (Please put tick mark)

I hereby declare that the above information is true and correct to the best of my knowledge and belief. In case of any false/wrong/misleading information, I shall be bound to take the decision taken by the University.

Signature of the Bidder

(With Seal)

Annexure II
APPLICATION FOR TENDER

(To be furnished in the Company's official letter pad with full address and contact no, Email address etc)

To
The Registrar
Cooch Behar Panchanan Barma University
Cooch Behar-736101
West Bengal

Sub: NIT for the Supply of **different Instruments** for the purpose of Departmental requirement for Department of Chemistry

Ref: - _____ N.I.T. Nodated

Sir,

Having examined the pre-qualification & other documents published in the N.I.T, I/we hereby submit all the necessary information and relevant documents for evaluation:

1. That the application is made by me/us on behalf of
.....in the capacity duly authorized to submit the offer. The authorization letter from the Company is attached in Annexure II.
2. We accept the terms and conditions as laid down in the tender document vide **Clause 9** and declare that we shall abide by it throughout the tender period including its extensions, if any.
3. We have gone through the Tender Document thoroughly and quoted the tendered items keeping in mind all sorts of information as furnished in the tender document including Corrigendum/Addendum as published from time to time.
4. We are offering rate for the following item /items with manufacturing capacity and assured supply to the Cooch Behar PanchananBarma University.

Sl. No.	Description of Items	Make	Model No.	Quantity	Offer Validity

4. In the event of being selected, I will make the supply within the stipulated period excepting the condition which is beyond our control.

Date :-

Signature of applicant including title and capacity in which application is made.

Contact no:

E-mail address

Postal Address:

Annexure III

(Authorization letter in favour of the applicant (other than Managing Director/ Proprietor/Partner) from the competent authority.)

FORMAT

(To be furnished in the Company's official letter pad with full address and contact no, Email address etc)

(TO WHOM IT MAY CONCERN)

This is to certify that Mr.(Name),
employee of this Organisation as (Official Designation) is
hereby authorised to submit tender online, Vide NIT No.....,
Dated on behalf of the Organisation.

Signature of the competent authority with Seal

.....

(Signature of the Authorised Person)

Signature of Mr.....

.....is hereby attested.

Signature of the competent authority with Seal

ANNEXURE IV

(Affidavit Proforma)
(To be furnished in Non – Judicial Stamp paper
of appropriate value duly notarized)

I, Sri/Smt.

The Managing Director/Proprietor (etc.) of the Firm.,
.....(Name of the firm)

At (address).....

do hereby solemnly affirm and declare as follows:

1. That I have not ever been convicted of any offence making myself liable to be disqualified to supply of Chemicals / Equipments/other items to any Govt. or Govt. undertaking Organization /Institution in the State of West Bengal or other State or States.
2. That no case is pending against me or against my firm in any criminal court of law to supply of Chemicals, Lab. Chemicals & Laboratory Equipments and other items to the Govt. or Govt. undertaking Organization / Institution in the State of West Bengal or other State or States (If any case is pending, state the details).
3. That, I also declare that if any information subsequently found incorrect or false will it automatically render the tender submitted by me cancelled and make me liable for penal/legal action as per law of the country.
4. That my concern has not yet been declared bankrupt by any banking or money lending agency duly licensed by RBI nor has it been considered doubtful by any Government concern so far as the solvency of the organisation is concerned.
5. That I do further affirm that the statements made by me in this tender are true to the best of my knowledge and belief and all the documents attached are genuine & correct.

Deponent(s).