

COOCH BEHAR PANCHANAN BARMA UNIVERSITY

Department of Zoology

NOTICE INVITING E-TENDER

Tender Ref. No.: CBPBU/Zool/01

Dated: 28.12.2017

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

List of Items to be Purchased:

S1.	Item	Specification	Quantitity
No		k	
		Chemidoc System:	
		1. System with true16 bit CCD (not A/D) camera; pixel density of	
		65,536 gray levels.	
		2. Individual pixel size should be at least 4.54 x 4.54 μ m or	
		bigger.	
		3. Camera resolution should be more than 6 megapixels.	
		4. The system should have dynamic flat fielding technology.	
		5. The instrument should provide excellent quantitative data from	
		a single blot having very intense and weak signals in a single	
		image; to facilitate the same instrument's dynamic range should	
		be at least 4 orders of magnitude for all applications (please	
		support with relevant technical data)	
		6. Instrument should provide highest level for sensitivity and	
		hence must have minimal dark current with maximum limit of	
		0.002 e/p/s and low read noise of not more than 6e	
		7. The system should be supply with a 10% strain free solution.	
		8. The camera should have peltier based cooling.	
		9. Quantum efficiency at 425 nm should be 70% or more, this will	1
1	Gel Doc	ensure that the instrument is highly sensitive to very faint signals	
		from chemiluminescent blots.	
		10. Motorized zoom fast lens with $f/0.95$ or better should be	
		provided.	
		11. Light sources/excitation should include – Trans-UV (302 nm),	
		Epi White, trans-white (requires White sample tray).	

	 12. Instrument should have provision for protective UV shield for use during band excision with safety interlocks to avoid un- intentional UV exposure to the user. 13. Minimum imaging area for white light and chemiluminesence application should be 20.5 cm x 16.5 cm. 14. Sample drawers with fixed stage. 15. Should provide image acquisition with automatic zoom, focus, and iris adjustment without the need for users to focus or adjust aperture settings. 16. The instrument should have onboard attached touchscreen of 12" or bigger with multi-touch capability (2 points) enabling users to easily interact with the touchscreen to acquire, assess and export images. Touchscreen actions should include – tap, double tap, pan, scroll to zoom. 17. Instrument should have multiple input/output ports with minimum 3 USB ports allowing users to connect USB devices (like keyboard, mouse, data storage, and printer). One USB port should be provided on the front panel for easy export to USB. Also, system should have one Ethernet port so that users can transfer image files via Ethernet to networked computers. 18. Factory calibrated flat fielding for ensuring uniform data for all applications. System should be calibrated for image area, focus, and flat field correction at the factory and files stored in the integrated PC. 19. Users should be able lock the system to prevent others from interrupting/changing the settings 20. The system should have the below illumination sources : Trans-UV, 302 nm (standard) Epi-white (standard) Epi-blue, 460-490 nm ((standard) Epi-star ed, 650-675 nm excitation (standard) Epi-star should have a fixed sample stage. 23. The system should have fixed sample stage. 24. Atleast five prior installation report of the exact same model of the instrument in different universities/ institutes/ companies in 	
	 Trans-blue, 450-490 nm ((standard) Epi-blue, 460-490 nm excitation (standard) Epi-green, 520-545 nm excitation (standard) Epi-red, 625-650 nm excitation (standard) Epi-far red, 650-675 nm excitation (standard) Epi-near IR, 755-777 nm excitation (standard) 21. System should be supplied with a stain-free acrylamide solution kit to enable stain-free imaging of gels and blots. 22. The system should have a fixed sample stage. 23. The system should provide flexibility in selecting the pixel binning options, should be possible to select minimally 2x2, 4x4 and 8x8 binning. 24. Atleast five prior installation report of the exact same model 	
	of the instrument in different universities/ institutes/ companies in India is required (should be provided with proper documentation from corresponding authority). 25. Should be supplied with a suitable Online UPS	
2	<u>Description & Technical Specification :</u> Wavelength range 400–750 nm • Photometric range 0.0–3.5 OD • Linearity _1.0% from 0.0–2.0 OD; _2.0% from 0–3.0 OD , • Accuracy ±1.0% or 0.010 from 0.000– 3.000 OD at 490 nm ,	

	• Precision 1.0% or 0.005 OD from $0.0-2.0$ OD: 1.5% from	
	2 0 3 0	
	• Resolution 0.001 OD	
	• Filter wheel capacity & Wheel with 6 proinstalled filters with	
	A15 A50 A90 595 655 and 750 nm	
	• Plate shaking 3 speeds: low mid high: duration: 0, 000 sec	
	• Plate shaking 5 speeds. low, find, firgh, duration. 0–333 sec,	
	very algorithm + Data output Onboard graphical thermal printer and	
	USD2 interface with DC on Mag data stations	1
	DSB2 interface with PC or Mac data stations	
	• Data storage Calendar/clock function; 64 assay Protocols,	
	• Flexible configurations with ability to read flat-, U-, or, V-	
	bottom microplates or 8- or 12-well strip plates,	
	• Automatic calibration before each reading,	
Elisa Plate	• Variable-speed plate-shaking capability	
Reader	• Easy-access 8-position filter wheel with 6 tandard Filters,	
Reduct	• USB2 port for external computer control	
	 Data and protocol presentation on LCD display 	
	• Onboard data storage of protocols, standard curves, and graphs,	
	• Self-diagnostic capabilities to detect lamp burnout at startup,	
	 Motorized door for plate loading Software specification: 	
	Microplate Manager for High-Throughput Analysis and	
	Reporting,	
	• Running of 12 separate assays on the same plate,	
	• Optional automatic printing upon completion of Measurement,	
	• Multiple-plate processing with automated data export	
	• Custom reporting function that provides one- button screening	
	for predefined assays, such as for TSE Comprehensive Curve- Fit	
	Analyses	
	• Linear, quadratic, cubic, Log-Log, Zero-Intercept Linear, Semi-	
	Log Logit Log Point to Point or logistic (4-narameter 5-	
	narameter) fit types	
	• Linear or logarithmic automatic axis scaling	
	• External standard curves for multiple plates	
	• Curve fit graph everlay for comparison Performance	
	verification	
	• Spectral blocking Complex Kingtic Analyses	
	Specifial blocking Complex Kinetic Analyses Choice of number of calculation points for Vmax	
	• Choice of humber of calculation points for vinax	
	• Simple velocity calculation	
	• Negative or positive slope calculation	
	• Absorbance limit selection	
	• Kinetic correlation coefficient display and calculation for fit (r	
	value)	
	• Real-time data acquisition display and ability to zoom in on a	
	well	
	• Automatic scaling and real-time monitoring	
	Can be acquired with up to 7 fixed angle retars and 1 and a set	
	Can be equipped with up to 7 fixed angle folors and 1 swing out rotors $-30x + 1.5/2ml$ tubes $20x + 1.5/2ml$ tubes $24x + 1.5/2ml$	
	10:018 , $50x = 1.3/2111$ (ubes $50 = x = 1.3/2111$ (ubes $5x = 1.3/2111$ tubes $6x = 15/50$ ml Eoloon $19x = 1.2$ ml are tubes or assure that	
	tubes of 15/50111 Factol, 16x 1- 2111 cryo tubes of screw cap	
	tubes simultaneously, $24 \times \text{spin}$ column tubes, $8 \times 8 \text{-P}$ I	
	$\frac{1}{100}$	
	Performance: which temperature range of $-11^{\circ}\text{C} + 40^{\circ}\text{C}$, which is	
	modifiable during the run operation Centrifuge must have a "fast	
	cool function where cooling process can be shortened	
	Have a standby cooling and heating mode up to 8 hours which	
	enables cooling or heating even when not in operation.	
	Have automatic temperature start up at a specific time to	
	automatically pre-prepare temperature before centrifugation	

3	Refrigerated Centrifuge	Must be able to maintain at 4°C at max. speed Max speed of 17,500rpm, max rcf of 30,130g adjustable from 100rpm upwards in an increment of 10rpm up to 3000rpm and in an increment of 100rpm thereafter. Acceleration time to maximum speed must be less than 14s for all rotors at max load and a deceleration time of less than 15s with the standard 30 x 1.5/2ml rotor, but has option to accelerate and decelerate gently for sensitive samples using SOFT function Timer for run can be set up to 99minutes continuous Must have "At set rpm" function which enables timer countdown to be started only when selected speed is achieved General features: • Must have digital display of time, speed and temperature • Programmable time and speed using jog dials • Must be able to store 50 routine procedures with 5 programmable buttons for frequently used programs in the first level • Able to switch display between rcf and rpm speed setting • Separate short spin key • Low noise levels less than 63db at max speed • Brushless maintenance free drive • Automatic motorised locking when lid almost closed Safety features: • Must follow safety standards set by IEC 1010-2- 020 • Rotor should be made of anodised aluminium to ensure chemical resistance Chamber must be of stainless steel material • Rotor must be autoclavable at 121°C for 20min to completely eliminate any contaminating material • Aerosol tightness should be certified by external body such as the Centre for Applied Microbiology and Research, Porton Down, UK • Automatic imbalance detection • Automatic rotor recognition • 2-point lid screwing for maximum security even at high speed centrifugation Technical specifications: Maximum RCF: 30,130 x g Maxiimum RPM: 17,500 1/min Acceleration time: 14s Deacceleration time: 15s Soft ramp : adjustable Timer : 30 s - continuous Noise level -	1
4	<u>(-86 degree)</u> <u>Freezer</u>	 Ultra-low temperature Freezer (-86 °C), Upright model, 410 Liters capacity Upright ultra-low freezer with Internal Dimension of 126.5 x 55 x 57.5cm Approx. and external dimension of 191.5 x 80 x 85.2 cm approx. Freezer should be of 410 Liters capacity System should have Programmable operating temperature from -50°C up to -86°C with 1°C increment Fully programmable microprocessor controlled with membrane keypad and eye level control panel. Construction should be of Polyurethane foam (130mm thick) insulation. System should be made up of 18 gauge Steel, 1.2 mm thick with powder coated paint to resist scratch and rust and the interior should be polished with 304 SS for easy cleaning and to eliminate potential for oxidation. Inner door should have 5 Compartment with five inner doors. Ambient to -85 C pull down timing should be 5.3hrs Freezer should have the sample (2" vials) capacity of 24,000 or more. 	1

	-20 Deep	 Freezers should have heated air vent and front panel air filter. Should have security keyed locks on the outer doors and lids keep out unauthorized users Freezer must have battery back-up and 4 PIN security lock for unauthorized tampering. Freezer must have RS 485 interface data logging port and it must also have on board SMART PLUS diagnostic software. Freezer must have three compartments with three inner doors for easy handling of samples. Audible and visible alarms for temperature, power failure, system failure, battery low etc. Should also have remote alarm port for connection to an auto dialer. Freezer must use CFC-FREE, HCFC-FREE nonflammable refrigerants, and refrigeration System must be energy efficient and hermetically sealed two stage cascade refrigeration system. Compressor should be capable to run any voltage between 190 – 270V. Freezer must have ISO 9001 standard quality test requirements and IEC 61010 Electrical safety CE & UL certified. Freezer should have efficient power consumption in the range of 10 to 11 kWh/day Freezer must have capacity to hold 15 racks and 240 boxes of 2" height vials ULTRALOW FREEZER Model : Technical Specification Capacity (litres) : 344 Dimension (Inches) WxDxH : 23x23x73 	
5	Freezer	Temperature Range : -17 °C ~ -24 °C Wheels : Yes (Rear) Lock : Yes Defrost : Manual Rated Load, Wattage : 140 No. of Baskets/Shelves : 8 No. of Lids/Doors : 1	1
		Tamp. Banga $\pm 5^{\circ}$ C to 70°C (gunning Tamp. 15 °C to 70 °C	
		Temp. Accuracy +/-0.2 °C at 25 °C	
		Temp. Controller Digital P.I.D controller	
		Display: Dual LED Display	
		Dimension (IN) 600x600x1200 (H)mm	
		(OUT) 750x880x1790(H)mm	
6	BOD Incubator	Capacity 432 Liter	1

		Material (IN) Stainless steel	
		(OUT) Steel plate with powder coating	
		Door Double door, silicon packing magnet door	
		Inner door Tempered Safety glass door	
		Circulation fan Internal convectional fan	
		Shelves 3EA, adjustable type	
		Safety Device Exclusive over/under temp. protector	
		Net weight 122 Kg	
		Power 220V, 6.5A, 1.5KW, 60HZ	
		FLOOR STANDING ICE FLAKING MACHINE WITH BUILT - IN-BIN	
7	Ice Flaking Machine	 Air cooled system CFC Free Refrigeration system Ice flaker body is made of non corrosive steel and well electrically grounded for safety. Auto shut off if water temperature is high Built in visual alarm Stainless steel insulated storage bin. Auto shut off when bin is full. Auto shut off of low water pressure Continuous crushed ice production facility. Electronic controlled system. Highly hygienic bin for storage of ice. Low power and water consumption. Attractive drain hose Production capacity minimum 70 kg per day Bin capacity not less than 30 kg 	1
8	Mini- 1-D vertical gel electrophoresis system	 Mini gel Specification- for 8 X 7 cm gels High throughput- Capable of running up to 4 mini gel (8 X 7 Cm) simultaneously. Should be supplied with the capability of running two gels . Flexible- Capable of running hand cast as well as precast gel. Running and casting module should be different Interchangeable module- Should be capable of using blotting module to do western blotting. Leak proof, tape free and easy assembly. Patented Flap wing for leak proof assembly. 	2
		Permanently bonded spacer plates for leak proof, without agarose sealing & taping casting of gels. Casting frame with simple cam closure mechanism that gives	

	1		
		precision alignment on any flat surface. Side by side casting stands that allow access to both gels simultaneously. Patented colored sample loading guides to prevent the skipping or repeated loading lanes. Modular design can be used do western blotting by using the blotting module only. Should able to run gels in 15-20 mins. Should come with buffer dam. Should come with 10% Stainfree Fast Acrylamide	
		Blotting Module:	
		It should be compatible with small SDS page Unit. It should be capable of doing the western blotting of the mini gels. It can run 2 blots simultaneously Color coded cassettes for proper orientation of gels and	
		membranes	
		System is able to transfer two mini gels. Ice free cooling unit for proper temperature control for western	
		blotting Modular design can be used do electrophoresis by using the electrode assembly and caster only.	
		Power Supply Basic-	
		Programmable power supply should be capable to operate four	
		electrophoresis units simultaneously for four identical runs with graphic LED display.	
		The output range should be 10-300 V, 0.4-400 mA, 1-75 W. Constant voltage, current or Power with Automatic crossover Memory storage: 9 programs, 9 steps, Timer Control : 99 hr, 59	
		min Automatic Power up after Power failure, Safety features: No-load detection; sudden load change detection.	
9	Fast Blotting System	Fast Blotting System	1
	System	Should have following specs:	
		Fast blotting system with four gel simultaneously,2 different cassettes same protocol at different time in 3 mins.	
		System should be open for traditional blotting consumables System should have inbuilt fix electrodes	
		Input power: 100–240 VAC, 276 VA, 50–60 Hz, 175 W max	
		System should have Cooling fan	
		Should have inbuilt Power supply with high current of 2.5 A	
		18 button keypad, 128 x 64 pixel monochrome display	
		Programmable methods: Up to 25 user-defined Preprogrammed methods: Standard SD, 1.5 mm gels, High MW,	
		Low MW, MixedMW, Audible clarm: Voc	
		User notifications should have following features:	
		Power fail during run No load detection	
		No cassette detection	

		• End of run			
		System should be supplied w Acrylamide solution with TE nitrocellulose for 40 blots	ith 10% Stainfree TGX fascist MED &APS , RTA transfer kit of		
10	Mini wet transfer system	Transfer two 10 x 7.5 cm gels High field strength for rapid Should be able to run overnig Wire electrodes should be p electrical fields and efficient Colour-coded cassettes and the gel during transfer Should have Ice cooling ur Mini Blot cell, for absorbing Buffer-450ml	s simultaneously I hr transfers ght at low voltage blaced at least 4 cm apart for strong protein transfer electrodes for proper orientation of hit, completely contained within the heat generated during rapid transfers	2	
11	Semi dry Transfor	Maximum gel size (W x L), cm	24 x 16		
11	Apparatus	Buffer requirement, ml	200		
		Gel capacity	4 Mini-PROTEAN [®] precast or hand PROTEAN [®] II gel sandwiches	icast gels, 3 C	riterion [™] gels, 1
		Recommended power supply	PowerPac TM HC (High Current)	1	
		Dimensions (W x L x H), cm	37 x 24 x 11		
		Weight, kg/lb	3.6/7.9		
		Together with accessories: Extra Thick Blot Filter Paper Extra Thick Blot Filter Paper Extra Thick Blot Filter Paper Extra Thick Blot Filter Paper Trans-Blot SD DNA/RNA Bl	, Precut, 7 x 8.4 cm, , Precut, 8.6 x 13.5 cm , Precut, 14 x 16 cm , Precut, 19 x 18.5 cm lotting Kit		
10	Bench-top	Capacity: 24 x 1.5/2 mL	DOE: 17.000-	2	
12	nigh speed mini	Type: Benchtop centrifuge R	un time: 1 to 99 min	3	
	centrifuge	Temperature range: Ambient	temperature		
13	Magnetic Stirrer	Speed: 100 to 1700 rpm (Con Maximum stirring capacity: Temperature control: room adjustable) Highest temperatu	stantly adjustable) 10L temperature to 199°C (Constantly are: 300°C	3	
14	Vortex	Specifications: Variable Sp	eed Control Maximum Speed: 3000		
15	Watan Dath	RPM Choice of Continuous &	to 201 Heating temperature range:	4	
13	water Dath	5°C to 100°C Temperature ac	scuracy: $\pm 0.2^{\circ}$	2	
16	Dancing	Specifications: Three dimen	sional combinations of rocking and		

	~ .		-
	Shaker	orbital motion, Non slip platform: adjustable from horizontal to a	2
		steep angle continuously, Low foaming agitation and uniform	
17	THE C	mixing capacity at slow speed, Speed limit: 0-60 RPM.	
1/	P ² meter	Microprocessor based, Ph range 1-14 Digital display, touch based	1
	table top	calibration and measurement button. systems that will measure	1
		pH, ion concentration (ISE), conductivity, dissolved oxygen,	
10	DH (temperature, or a combination of parameters.	
18	P ^m meter	Microprocessor based, Ph range 1-14 Digital display, touch based	1
	hand held	calibration and measurement button. systems that will measure	1
		pH, ion concentration (ISE), conductivity, dissolved oxygen,	
10	.	temperature, or a combination of parameters.	
19	Micropipette	Fully autoclavable, 0.2 -10 ul, 2-20ul, 20-200ul, 200-1000ul and	3 each
20			2
20	Multichannel	wunichannel pipette	
-	pipette		
		Compact ultrasonic processor	
		Power: 200 watts Frequency: 24 kHz	
	ти тра	Capacity: Up to 2000 ml.	
21	ULIKA	Automatic frequency scanning system,	1
21	SUNICATOR	Dry running protection	1
	SISIEN	Solid titanium probe for all sample even for organic solvents or	
		low surface tension liquids. Replaceable tip or sonotrode with	
		multiple joint will not be entertained	
		Fasy positioning of samples under the ultrasonic probes to	
		control immersion denth stainless steel	
		Specification for CO2 Incubator	
		Direct Heat Chamber	
		 160L Electro polished stainless steel chamber with 	
		compact footprint, easily stackable	
		 Standard left hand door swing; reversible door swing for 	
		added flexibility	
		THRIVE Active Airflow	
22	CO		1
22	CO ₂	 In-chamber fan gently distributes clean, humidified air 	1
	incubator	throughout the chamber ensuring homogeneous	
		conditions	
		Protected Humidity Reservoir	
		 Should have directly heated water reservoir provides 	
		stable high relative humidity levels, preventing culture	
		desiccation	
		• Cover should limits particles and spilled media from	
		 Setting into the reservoir Should have Condensation free inner should be reserved. 	
		- Should have Condensation free inner chamber, prevents a	
		 Should have 5V factor humidity recovery then traditional 	
		- Should have 3A faster humidity recovery than traditional	
		 water pail uesigns For easier water handling, humidity reservoir may be 	
		 Should have Condensation free inner chamber, prevents a breeding ground for contaminant Should have 5X faster humidity recovery than traditional water pan designs For easier water handling, humidity reservoir may be 	

filled or drained without the removal of shelves or cultures are preferable
In situ sensors and probes
 Dual temperature probes for over temperature protection with operational back up Should have facility of up gradation for O₂ control for future application
Steri-Run, high temperature defection cycle
 Overnight cycle simplifies cleaning and eliminates the need for separate autoclaving of parts Should have 180°C cycle assures uniform 6-log sterilization on all chamber surfaces eliminating biological contaminants
Intuitive, interactive iCAN TM Touchscreen Control
 Convenient on-screen user prompts and reminders for easy navigation Selectable languages simplify operation: English, Spanish, German, French, Italian, Japanese and Mandarin Visibility to changes in culture environment on performance graphs and error and data logs
Technical Specification
 Chamber volume 160 liters or more Shelf count : 3 standard / max. 10 numbers Temperature range :3°C above ambient to 55°C Humidity Range :>93% @ 37°C Concentration Control : ±0.1°C Stabilization Time : Under 12 hours Port Type : 42mm access port, rear left Sensor Types : TCD Sensor Certifications: CE, CSA * Pre-requisites like CO2 regulator, 18 18Kg CO2 cylinder filled with CO2 gas & suitable servo voltage stabilizer from local source to be required at the time of installation. After Sales Service should be provided from Kolkata office.
The cabinets are fabricated of thick board duly sunmica clad. Interior surfaces are expoxy painted for its longer life. The work table made of heavy gauge S.S. sheed and is fitted with U.V. Germical light, static pressure Manometer, Exhaust System (Suitable for 6 feed duct) and Virus Burn Out Unit. Side panels

23	Biosafety Cabinet	are made out of thick transparent plexis glass duly framed. The unit is fitted with pre- filter and HEPA filter. Air is drawn though pre- filter and is made to pass through highly effective HEPA (HIGH Efficiency particular Air) filters having efficiency retaining all air – borne particles of size 0.3 micron and larger. Using a dynmic balancing machine, the blower and motor assembly is statically and dynamically balanced. Motor of 1/H.P. capacity operates with minimum noise level. The working area is illuminated by fluorescent lighting fitted to the unit. The height of the working table provides a comfortable "SIT DOWN" working position for the operator. In addition to the above features of a standard Vertical laminer flow Bench the Bio- Safe Cabinets have arrangement for re- circulating a part of the air thus creating highest level of clean air, The unit is also convertible to the conventional vertical air flow bench with downward air flow by lifting the sliding front door upwards. Air is sucked through the per- filter and theexcess air flow by lifting the sliding front door upwards. Air is sucked through the pre- filter and the excess air is thrown out from the top, through a HEPA filter. Supplied with HEPA filter, Pre- filter U.V. light and fluorescent light. Working Size:- 2"x2"x2" Size of HEPA Filter:-2"x2"x6" No. of HEPA filter:-1 1	1
24	Laminar Air Flow	Features: System is designed to meet the requirement of US Federal Standard 209B (BS 5295) providing particle free air to meet class (Class condition) the cabinets are fabricated out of thick board duly sun mica clad. Interior surface are epoxy painted for its longer life. The work table is made of thick board pasted in S.S. lined at top. Side panels are made out of thick transparent plexi glass duly framed. The unit is fitted with pre filter and is made to pass through highly effective HEPA filters having efficiency as high as 99.99% with cold DOP and 99.97% with hot DOP, thus retaining all air-borne particles of size 0.3 micron and larger The system is used with dynamic machine the blower and motor assembly is statically and dynamically balanced ISI MARKED Motor of ¼ H.P Capacity operates with minimum noise level The working area is illuminated by fluorescent lighting fitted to the unit Height of the working table provides comfortable "SIT DOWN" working position for the operator To work on 220/230volts AC supply Supplied with S. Steel table top HEPA Filter ,pre filters ,and fluorescent illumination Transparent Front door, static pressure manometer, Built in Germicidal light, cock for gas, air or vacuum line. Etc Specifications: Working Size: 2' x 2' x 2' Size of HEPA Filter: 2' x 2' x 6" No. of HEPA filter: 1 Illumination:1x 20 W	1
25	Shaker Incubator	(Benchtop model) Small Capacity $50 \sim 300$ rpm, Amb.+5 $\sim 60^{\circ}$ C Flat platform with non-slip rubber mat OR Double platform with non-slip rubber mat	1
26	Portable microweighin g Balance	Specifications: Capacity: 120g-10 microgram Minimum display: 0.01mg Pan size (mm): 110 dia Power supply: two ways (AC or Battery operation).	2
27	Balance	Specifications: Capacity: 32/180 Gms Readability: 0.01mg	1

28	Upright	Specifications: Temperature Control Chamber: 0° to -35°C (at Upright wide field research microscope with large heavy rugged stand for longevity, highest stability and vibration free work.	
	Microscope	The microscope for BF, DF, Phase, Differential Interference Contrast (for plastic dishes also) and Fluorescence	1
		Transmitted light halogen illumination	
		Hextuple nosepiece with slots for DIC sliders.	
		Binocular tube with field of view minimum 22mm or higher. Higher is preferable. Viewing inclination angle not more than 20degree.	
		Separate port for camera attachment.	
		Objective magnification 10x, 20x, 40x.	
		Intensity regulator and focusing knob should be placed side by side, accessible from both side and can be controlled each of them without moving the hand position for better ergonomic and continuous observation without moving away from eye piece.	
		Integrated luminous-field diaphragm and aperture stop	
		6-position filter wheel at the front equipped with the integrated shutter and additional filter slider at the back.	
		Reflected light 100 watt mercury vapour or LED Fluorecence excitation with Fluorecence filter (1) UV excitation filter 365 shift free Dichromatic Mirror 395, emission filter bandpass 445/50 (2) excitation filter 450-490, Dichromatic Mirror 510, emission filter longpass 515 (3) excitation filter 545/25, Dichromatic Mirror 570, emission filter bandpass 605/70.	
		Must be completed with dust cover and dust protection arrangement from manufacturer.	
		standard warranty of 1 year.	
		1.4MPixel Monochrome CCD camera Pixel size: 4.65 μm x 4.65 μm Digitization: 12 Bit / Pixel Integration Time: 1 ms to approx. 4 s	
		<u>SOFTWARE</u>	
		Camera driver for use camera. Support for the acquisition of individual images (SNAPs). Movie Recorder Various manual microscope components (objective, Optovar, camera adapter) configur to generate a theoretical scaling. Graphical user interface can be switched between bright or dark design to adapt to ambient brightness. User interface offers stepless scaling and zooming for optimal adjustment to the screen size.	

		Interactive measurement: length, contour-based measurement data	
		(area, box, perimeter, gray values), angle.	
		hars	
		Export into OME-TIFE (image format specification of the Open	
		Microscopy Environment which enables the exchange of	
		microscopic image data).	
		BatchExport of images and videos.	
		μ bar scalings.	
		Text annotation.	
		Postprocessing of images: standard operations for image	
		optimization (contrast, brightness, gamma, colors, smoothing,	
		sharpening, geometric corrections).	
		Image file browser. Multiple independent image containers, image comparison view	
		Gallery view	
		Channel view	
		Histogram measurement.	
		Profile measurement.	
		2.5D (pseudo-3D) view.	
		Info view.	
		Functions for working with data tables: filtering and sorting of	
		tables.	
		Kolkata based convice center with the convice credentials will be	
		normal based service center with the service credentials will be	
		prototodi	
29	Fully Rotary	Manual Rotary Microtome	
29	Fully Rotary Microtome	Manual Rotary Microtome Imported Rotary Microtome with	_
29	Fully Rotary Microtome	Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm	1
29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection 	1
29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection from 0.5–2 μm in 0.5 μm-steps from 2–10 μm in 1 μm-steps 	1
29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection from 0.5–2 μm in 0.5 μm-steps from 2–10 μm in 1 μm-steps from 10–20 μm in 2 μm-steps 	1
29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection from 0.5–2 μm in 0.5 μm-steps from 2–10 μm in 1 μm-steps from 10–20 μm in 2 μm-steps from 20–60 μm in 5 μm-steps 	1
29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection from 0.5–2 μm in 0.5 μm-steps from 2–10 μm in 1 μm-steps from 10–20 μm in 2 μm-steps from 20–60 μm in 5 μm-steps Total horizontal specimen feed 25 mm 	1
29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection from 0.5–2 μm in 0.5 μm-steps from 2–10 μm in 1 μm-steps from 10–20 μm in 2 μm-steps from 20–60 μm in 5 μm-steps Total horizontal specimen feed 25 mm Vertical specimen stroke 59 mm 	1
29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection from 0.5–2 μm in 0.5 μm-steps from 2–10 μm in 1 μm-steps from 10–20 μm in 2 μm-steps from 20–60 μm in 5 μm-steps Total horizontal specimen feed 25 mm Vertical specimen stroke 59 mm Specimen retraction ON/OFF 	1
29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection from 0.5–2 μm in 0.5 μm-steps from 2–10 μm in 1 μm-steps from 10–20 μm in 2 μm-steps from 20–60 μm in 5 μm-steps Total horizontal specimen feed 25 mm Vertical specimen stroke 59 mm Specimen retraction ON/OFF Specimen orientation: XY – 8° 	1
29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection from 0.5–2 μm in 0.5 μm-steps from 2–10 μm in 1 μm-steps from 10–20 μm in 2 μm-steps from 20–60 μm in 5 μm-steps Total horizontal specimen feed 25 mm Vertical specimen stroke 59 mm Specimen retraction ON/OFF Specimen orientation: XY – 8° Should have two steps mechanical trimming function for 	1
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29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection from 0.5–2 μm in 0.5 μm-steps from 2–10 μm in 1 μm-steps from 10–20 μm in 2 μm-steps from 20–60 μm in 5 μm-steps Total horizontal specimen feed 25 mm Vertical specimen stroke 59 mm Specimen retraction ON/OFF Specimen orientation: XY – 8° Should have two steps mechanical trimming function for fast and convenient specimen trimming Trimming thickness 10 μm, 50 μm 	1
29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection from 0.5–2 μm in 0.5 μm-steps from 2–10 μm in 1 μm-steps from 10–20 μm in 2 μm-steps from 20–60 μm in 5 μm-steps Total horizontal specimen feed 25 mm Vertical specimen stroke 59 mm Specimen retraction ON/OFF Specimen orientation: XY – 8° Should have two steps mechanical trimming function for fast and convenient specimen trimming Trimming thickness 10 μm, 50 μm Working height (knife edge) 105 mm 4.134" Accessories should include disposable blade's pack of 50 	1
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29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection from 0.5–2 μm in 0.5 μm-steps from 2–10 μm in 1 μm-steps from 10–20 μm in 2 μm-steps from 20–60 μm in 5 μm-steps Total horizontal specimen feed 25 mm Vertical specimen stroke 59 mm Specimen retraction ON/OFF Specimen orientation: XY – 8° Should have two steps mechanical trimming function for fast and convenient specimen trimming Trimming thickness 10 μm, 50 μm Working height (knife edge) 105 mm 4.134" Accessories should include disposable blade's pack of 50 blades high profile, disposable blade holder for low profile or highprofile blade. 	1
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29	Fully Rotary Microtome	 Manual Rotary Microtome Imported Rotary Microtome with Section thickness setting range 0.5–60 μm Section thickness selection from 0.5–2 μm in 0.5 μm-steps from 2–10 μm in 1 μm-steps from 10–20 μm in 2 μm-steps from 20–60 μm in 5 μm-steps Total horizontal specimen feed 25 mm Vertical specimen stroke 59 mm Specimen retraction ON/OFF Specimen orientation: XY – 8° Should have two steps mechanical trimming function for fast and convenient specimen trimming Trimming thickness 10 μm, 50 μm Working height (knife edge) 105 mm 4.134" Accessories should include disposable blade's pack of 50 blades high profile, disposable blade holder for low profile or highprofile blade. Should have effortless manual sectioning via a counter-balanced, exceptionally smooth-running 	1
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		 Should have minimum 20 installation in eastern Indiain which 10 should be in Government Medical colleges. Should have factory trained engineer support in Kolkata. 	
		Engineers should be based at Kolkata with more than 95% ontime service record.	
30	Rocker	20 rpm, Tilt Angle: 20°	3
31	Spectrophoto- meter	Spectrum analyser (wave length). Measuring of optical density converted to electrical measurement in millivolt. Optical system : Double Beam Monochromator : Seya – Namioka Monochromator Wavelength range : 190 to 1100 nm Spectral bandpass : 1. 5nm Stray light : 0.05% or less (220 nm for Nal, 340 nm for NaNO2) Wavelength accuracy : ± 0.3 nm (at 656.1, 486.0nm) Wavelength accuracy : ± 0.3 nm (at 656.1, 486.0nm) Wavelength setting repeatability : $+/-0.1$ nm Photometric mode : ABS, CONC, %T Photometric range : - 3 to 3 Abs / 0 to 300% T Photometric accuracy : ± 0.002 Abs (0 to 0.5 Abs), ± 0.004 Abs (0.5 to 1.0 Abs) (certified according to NIST SRM 930) ± 0.008 Abs (1.0 to 2.0 Abs), $\pm 0.3\%$ T Photometric repeatability : ± 0.001 Abs (0 to 0.5 Abs), ± 0.002 Abs (0.5 to 1.0 Abs), (certified according to NIST SRM 930) \pm 0.004 Abs (1.0 to 2.0 Abs), $\pm 0.1\%$ T Baseline flatness : ± 0.0006 Abs (within 200 to 950 nm) Baseline stability : 0.0003 Abs/hr (at 500 nm, 2 hours after power on) Response : fast, standard, slow Wavelength scan speed : 10, 100, 200, 400, 800, 1200,2400, 3600 nm/min Light source changeover : Automatic switchover interlocked with wavelength. Sample Compaetment : Beam Spacing – 100nm Detector : Silicon photodiode Display : 26.4 cm (10.4 inches) colour LCD display with backlight. Noise level : ± 0.00015 Abs (at 500 nm) Printer I/F : Centronics interface Serial I/F : RS-232C (exclusive for UV solutions program) Dimensions : 500(W) x 605(D) x 283(H) mm (with LCD lowered) GLP/GMP : Complied. QUARTZ CUVETTES – Volumes 3.5ml, Path length 10 mm	1
		Microscopestand	
		to attach	
		camera on Coded Left Side port with 0:100 % light sharing with 18mm or more	
		FOV for Camera.	
	Inverted	Motorized Z focusing with Course and Fine knobs with travel range preferably	

	Microscope with Phase	more than 10mm.	
37	Contrast,	ObservationTube	1
32	Fluorescence Technique	Binocular tube with 45 degree Viewing Angle and 100:0, 50:50 & amp; 0:100 light	
	CCD Camera & software	sharing.	
		Transmittedlight	
		Coded Transmitted light continuously variable luminance Adjustment of	
		brightness, with Field Diaphragms. Transmitted light with 3300k -4500K	
		(preferable white light); with inbuilt fast shutter, preferably LED for long life	
		(approx 40000 hrs or more).	
		ContrastingMethods	
		Microscope should be equipped for Bright field, Phase contrast, DIC and	
		Fluorescence.	
		XY Stage	
		Manual XY stage with universal sample holder for plates, glass slides, petri-	
		plates, etc.	
		Objectivenosepiece	
		Coded/Motorized nose piece for easy operation. Features must be high-grade	
		smooth operation and with positive click stops.	
		Condenser	
		Condenser with min. Working Distance of 28mm and should have at least $6/7$	
		positions.	
		Fluorescence	
		Motorized Filter turret with 6 or more positions. Adjustable aperture and field	
		diaphragms; Should have body inbuilt 4 / 5 position light intensity	

	filter wheel /	
	slider. Cold LED light source for the fluorescence with a minimum life span of	
	25000 Hrs should be quoted.	
	Fluorescencefilters	
	Fluorescence filter for DAPI (Excitation: 350/50 Dichroic: 400,Emission:	
	460/50), FITC(Excitation: 480/40,Dichroic: 505, Emission: 527/30),	
	RHOD(Excitation: 546/10,Dichroic: 510, Emission: 585/40) All filters should	
	not have any pixel shift.	
	Objectives	
	Plan Objective of 10x and 20X for phase contrast application.	
	Fluorescence grade Objective $40X/0.55$ long working distance and with	
	correction collar WD 3.3~1.7 & amp;100X/1.25 NA Oil.	
	Optional: 63x/0.70 long working distance and with correction collar WD	
	2.6~1.8	
	40X, 100X & amp; Optional 63X Objectives should be quoted with DIC accessories.	
	Eyepiece pair	
	10x/25mm Field of View or above	
	CCD Camera	
	2.8 MP Color & amp; Monochromatic cooled camera with -20° C Peltier cooling, with	
	1920 x1440 MP & amp; 4.54 μ m x 4.54 μ m pixel size should be quoted.	
	40 fps or better,	
	4.54μm x 4.54 μm pixel size	
	A/D converter 16 Bit,	
1		1

		Dynamic range > 65 dB (typical),	
		Along with Microscopy $0.5x \sim 0.7x$ C-mount for Side Port and Trinocular port.	
		Software	
		Software to control motorized components of Microscope, above camera for	
		acquisition of images in Multi-Channel Mode with Image Overlay & amp; Interactive	
		measurement module. Desirable branded Computer/ laptop with OS-Windows8	
		or more upgraded version (along with MS Office and Antivirus) for microscope-	
		software and other work and a colour laser printer.	
		UPS along withspike breaker	
		Suitable UPS (2KV or more) is required for the whole system (running	
		microscope and computer/laptop)	
		Computer	
		Dell Vostro 3900 / 3902	
		Dell OptiPlex Mini Tower	
		Intel® Core TM i7-4770 with Intel HD Graphics 4600 (3.4 GHz, 4 cores),	
		1.0TB HDD, 8.0GB (4+4) DDR3 RAM 1600MHz, SATA SuperMulti DVD	
		writer, 6 USB 2.0, 1 VGA, 1 microphone/headphone jack, 1 line in, 1	
		line out, 1 RJ-45, (10/100/1000mbps), 2.0GB Graphics, 1 full-height	
		PCIe x1, 23" wide screen Monitor, Windows 7 Prof. 32Bit	
		Warranty and AMC/CMC	
		Warranty of minimum 01 year is required & amp; need to be included in the quote.	
	a la	Others Microscope, Camera & amp; Software should be from the same manufacturer.	
33	Specification	Specification of Microprocessor based Stand alone Fluorescence	
	<u>of</u>	spectrophotometer	
	Microprocess		

<u>or based</u> <u>Stand alone</u> <u>Fluorescence</u> <u>spectrophoto</u> <u>meter</u>	 PC Independent System must have a built in high resolution large LCD display, keyboard and provision for PC operation both. A small amount of 1 x 10⁻¹²mol/L fluorescein should be detected by the low fluorescence intensity of range from 	
	0.001 to 9999.	
	 Should have option for quantum yield measurement. System should be satisfied Cutting-Edge Elyopagenee analysis 	1
	 Should have automatic pre scan and compatible for GFP measurement and DDE, OLE functions. The dynamic range Should be at least 6 order magnitude or more 	
	 Should have a JIS K 0120 satisfied performance check function. Should have monochromatic light monitoring ratio calculation function 	
	 Measurement techniques: 3-dimensional Fluorescence measurement, automatic sensitivity measurement, measurement of wavelength accuracy and wavelength setting repeatability. prescan, Data storage capacity(minimum up to 50) 	
	 Spectral Range : Should 220-730nm, with 0-order light Spectral Bandwidth : 2.5, 5, 10, 20nm (Both excitation) 	
	 and emission) Sensitivity : High sensitivity not less than S/N 10000:1. Peak to peak S/N 800 or better (RMS) using Raman band of water Excitation wavelength 350nm, bandwidth 5 nm, response 26 	
	 Light source : Self-deozonating Xenon flash lamp 150 W Detector : High Performance Photomyltiplier Tube 	
	 Detector : High renormance rhotomathipher rube Monochromator: Aberration-corrected stigmatic concave diffraction mechanical grating instead of Holographic grating Brazed wavelength : Excitation side 300nm,(emission side) 400nm (fluorescence side). Half value width calculation with spectrum averaging 	
	 Wavelength pre scan speed : Should 1500nm/min. 	
	 Wavelength drive speed : Maximum 12000 nm/min Wavelength Accuracy : +2 nm 	
	• Wavelength Repeatability : ≤ 1 nm	
	• Wavelength scan function : Provision for synchronous spectra/repetitive measurement/CAT, Linear to biquadratic differentiation, trace, scale conversion, smoothing etc	
	• Software should have provision for controlling the instrument & its accessories & 3-dimensional time scan measurement and Data processing features such as quantitative analysis, cumulative data averaging, first to fourth order differentiation, statistic calculation, graph axis change, smoothing, area calculation ,spectrum	
	normalization ,wavelength scan measurement, time based measurement such phosphorescence life time, 3-D measurements, Data export to Microsoft Excel etc.	

		Thermostatic cell holder	
		All the above specifications should be mentioned in printed literature of manufacturer Additional weightage will be given to the vendors those are experienced having installation of at least 5 units spectroflurimeter per year for last three years.	
34	Rotator	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. 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.	2
35	Refrigerated Shaker Incubator	 Temperature range: Ambient -20°C (Min. +4) to 80°C. Competitive high shaking speed up to 500 rpm. (Stackable up to 250rpm) Orbital shaking motion in 19.1mm diameter. Microprocessor PID control. Three points temperature calibration / Automatic tuning. Wide speed range even with heavy workload. Equipped with a maintenance-free BLDC motor to generate smooth, quiet, uniform, and yet powerful shaking motion. Best effort run function intelligently manages its rpm to keep shaking even workload is out of its capacity. Automatic shaking speed adjustment in case of excessive workload such as unbalanced load placement, unusual vibrations caused from unstable floor or external shock. Pleasant test environment by the smooth acceleration and deceleration control. Smooth start and smooth stop function prevents chemical spills from flasks or test tubes. High-velocity fan ensures uniform temperature distribution and rapid thermal recovery after door open. Air-tight silicone door seal to provide excellent temperature uniformity. 	1
		 Easy-set digital timer for shaking operation. (1 min. to 	

		999 hr. 59 min.)	
		 Wide sample monitoring. Clear observation of samples without affecting inner chamber's environment thanks to the transparent viewing window with bright LED lamps. Papetitive tack can be assily performed as the platform 	
		 Repetitive task can be easily performed as the platform stops where it starts. Stopping the shaking platform always at the same position is highly beneficial for automated dosing or sampling process. Two adjustable-height shelves provided allow static incubation or refrigeration, which increase storage capacity. Built-in electrical outlet with a safety cover inside the chamber. Corrosion resistance stainless steel interior. Easy-access drain system with a quick disconnect valve offers great convenience to clean up of spills. Built-in RS-232 port and USB port for external control and data collection. 	
		• Retractable foot caster, beneficial for easy mobility during installation or relocation (optional)	
		Chambers stackable, up to two levels.	
36	Portable Suction Machine	Portable Suction Machine fitted with Reuseable Filter Jars : 1 x 1.5 Ltrs. The Polycarbonate Jar fitted with lids on the side of the Suction Unit with over flow protection mechanical type Tubing is noncollapsible Vacuum Gauge has 50 mm diameter graduated. Bacterial Filter are Autoclavable and Reusable Pump is Oil Free Rocker Piston Pump Vacuum Capacity is not less than -600 mm Hg \pm 10% at 15-20 LPM which is controlled by knob. Noise Level<50 dB A \pm 3 Almost Whispers Motor Shared Pole Power : 220/230V AC, 50HZ , 90W The Valve: Synthetic Rubber	3
		 Bench top flow cytometer Cell Sorter required with 488 nm /equivalent blue Laser, 633-642 nm /equivalent Red laser and 405 nm / equivalent Violet Laser. 2. The system should be based on cuvette based fixed aligned cell sorting to avoid any user level alignment while day to day run of the instrument. 3. The system should have at least 8 fluorescence/colour (10 parameters) measurement capability simultaneously, upgradable to more colours. 	
	Bench Top Compact High Speed cell sorter	4. System should have minimum3 beam spots without any customization with the base instrument.	

37	and Flow based analyzer	5. The system must have nozzle of size of 100 microns and the nozzle tip can be removed during operation, replaced and stream optimized.	1
		6. No manual alignment of nozzle to be done by the user even after removal and replacement of the nozzle into the system.	
		7. The system should be able to acquire & sort at least 25,000 or more -events/second.	
		8. The system should have option of automatic cell deposition unit which allows for slide and plate sorting into 6, 24, 48, 96 and 384 plates.	
		9. Viability & yield should be more than 90% in routine applications	
		10. Date Management system: Latest PC Workstation from source, with compatible monitors	
		11. The company should offer the latest and updated model and should have a dedicated training centre with documented proof of conducting regular training for research applications.	
		12. The system should be space saving and compact model	
		13. System must have upgradability option with Bio-safety cabinet.	
		14. Warranty: 1 year from the date of installation	
		15. Starter Kit for installation and 3 KVA Online UPS & colour laser Printer should be supplied with the system.	
		16. System should be installed with minimum 3 years of comprehensive maintenance contract (CMC) from manufacturer.	
		17. Minimum 40 lt of sheath fluid should be provided at the time of installation.	
		18. At least 6 Fluorescence labelled antibody of choice must be included in the package.	
	Oyugaanh	 The system Should consist of a highly sensitive Clark type Polarographic Oxygen sensor for gas And liquid phase measurement. a) Electrode output : 1µA at 21% O2 b) Response Time : 10 – 90% <5 seconds 	
38	Oxygraph	2. Measuring Range : Oxygen: 0-100% : pH 0-14pH	1
		3. Resolution : 0.0003% Oxygen (24 bit) : pH 0.0006pH	
		4. Liquid Phase Sample Volume: 0.2-2.5ml	
		5. Power: 230V AC, 50Hz	

		 6. Option for connecting external circulating bath to maintain different sample temperatures. 7. Micro controller based 8. Supply should be complete with all accessories, Software for PC controlled magnetic Stirrer (150-900rpm, Variable) with windows based software for PC Control with USB 2.0 Connector. 9. Should be provided with One Year Warranty. 	
39	Thermocycler	 Gradient PCR specification: Should have a sample capacity of 96x0.2ml tubes, 0.2ml tube strips or universal or standard 1x96-well plate of 8x12 format with six or more Peltier heating and cooling. System which are not capable of taking plates will not be considered. Should have true gradient capability with Dynamic ramping technology, other technologies apart from gradient will not be considered. Should have the feature of dynamic ramping with identical hold times for all the 8 rows of gradient. Should have a temperature differential range of 1-25degC across the rows. Should have intuitive 5.7" (14.5 cm) touch screen interface which can displays graphics in high resolution for easy programming. The touch screen should be responsive for both gloved and ungloved fingers. Should have a maximum ramp rate of 4 degC/second. Should have a temperature accuracy and uniformity of ±0.5 deg C Should have a temperature accuracy and uniformity of ±0.5 deg C Should have a memory of >500 programs with further expansion through a USB Flash drive for transfer of files. Should have a block and calculated temperature control modes. The software should be capable of exporting Run logs and system error logs Should have the feature of "Instant Incubation" to keep samples at constant temp for ligation and restriction digests. Should have the capather of "Instant Incubation" to keep samples at constant temp for ligation and restriction digests. 	2

		• The vendor supplying the Instrument should also have the capability of supplying cDNA Synthesis Kit, Hot Start Taq Polymerase, plastic ware, and horizontal electrophoresis system with power pack from the same Principal Company	
40	qPCR (Real Time PCR)	 Real time PCR with block of 96 x 0.2 ml tubes or plate to Run typical 0.2ml tubes, strips, and plates. Should have a gradient capacity with Dynamic ramping. Should have a Detection of 2 or more different fluorescent reporters in the same tube without the use of ROX. Should be capable of Detecting FAM/Sybr Green, VIC, HEX, TET, CAL Fluor Gold 540 or more. The system should have a ramp rate of: 5°C per sec or better. Should have one channel dedicated for FRET experiments without the need of a service engineer to change the filters. Should have a mass reduced block to offer better average ramp rate and 10 sec of settling time. Should have an Excitation –Emission range of 450-580nm No internal reference dye should be required. True 2 Color Multiplexing with use of 2 different flourophores without the need of addition of any internal reference dye, Should have 3 filtered LEDs as an excitation source with 3 filtered Photodiodes for detection. The system should be capable of networking with multiple systems in the future. Should have a Dynamic range of 9 orders or more. The system should be an Open system capable of running various chemistries so that Different chemistries using TaqMan, Molecular Beacon, SYBR green etc all can be performed. Temperature range 0– 100 °C with accuracy of ±0.2 °C and uniformity of ±0.4 °C within 10 sec of arrival at 90 °C. Sample volume should be 1-50µl or better. Should have built in data analysis modules with advance features like well highlighting. QC flags and custom data view assist with quick analysis. Should be capable to perform Gene expression analysis by relative quantity (ΔCt) or normalized expression (ΔΔCt). 	1

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		• End point analysis for upto 2 fluorophores		
		• Should have mode for Melt curve analysis	1	
		• Comparison of upto 5000 Ct values from different	data	
		System should be compatible for HBM application	e.	
		 System should be compatible for Them application Should have the feature of Email notification with 	s. data	
		file after run completion.	Julu	
		• Software should have express load feature which all	llows	
		entry of data after experiment.		
		Should be licensed for Research & IVD application	18.	
		• System should be compliant with the MIQE Guide	lines	
		• System should be provided with a license copy of	qbase	
		plus software from Biogazelle which is RDML	aat	
		PCR Quality helps in inter run calibration, to access po	ost —	
		helps in bio-statistical analysis, CNV Analysis and	MIOE	
		Compliancy.		
		• Software should be capable to import and analyze of	lata	
		from any real time PCR platform.		
		• System should be supplied with a suitable compute	r &	
		UPS		
		Binocular Dissecting Microscope		
		• Binocular Stereozooni Microscope with minimum $range 8x to 40x$ or higher	200111	
		 Free working distance minimum 110 mm or higher 	for	
		easy micromanipulation operation without any		
		supplementary optics.		
		• The front lens should not block the oblique light pa	th.	
	Binocular	• Eyepieces 10x both focusable with minimum field	of	
41	Dissecting	view 23mm. completed with eye piece eyecup.	1	
	Microscope	 Large object field minimum 29 mm or higher Large Stand base 100mm v 210mm or higher with 	huilt	
	-	• Large stand base 190mm x 310mm of higher with in LED transillumination with rotatable and slidabl	e	
		mirror for brightfield, darkfield and oblique		
		transillumination		
		Rugged Stand & driving system with load capacity	5kg	
		• Separate controls for switching on, off or dimming	of	
		reflected or transmitted light illumination		
		• Integrated power unit to operate on fluctuating volt from 100 240 V AC/50 60 Hz	age	
		• Glass and B/W plastic plate around D=85 mm		
		• Dust cover from manufacturer.		
		Type : Vertical		
		Volume $\cdot 221 \text{ Lit}$		
		Control : Microprocessor control		
		Refrigeration system : Air cooled, CFC free		
		refrigeration system		
		Display : Eye level, Digital LED d	isplay	
	G • @•	Defrost System : Automatic Defrost		
	Specification	□ Lemperature range · + L ^o C to + 12°C (tactory r	re-set	1

	for <u>Lab</u>	at +4°C)		
42	Refrigerators	Electrical system : Automatic low voltage surge		
	(Single Glass	l		
	Door):	Interior	: Stainless steel with rounded	2
		corners for easy cleaning.		
		Exterior Cabinet construction	: Heavy gauge, cold-rolled steel	
		ex	sterior construction with a powder	
			coated paint finish that resists	
			chinning and rust	
		Insulation	\cdot 5 inch foamed $-$ in $-$ place	
		Institution	nolyurathana insulation	
		Vacuum relief port	· Allows assy and quick access	
		vacuum rener port	. Allows easy and quick access	
		Tanan daan	after door opening .	
		Inner door	: 5 independent interior	
		comparti		
		often d	Improve temperature recovery	
		after d	loor closing and to help maintain	
		1 .	Cabinet temperature during	
		door opening.		
		Shelves	: 3 sturdy, solid stamless steel	
		shelves to create 5 interior cor	npartment	
		Filter	: Easy to remove air filter	
		Access Port	: I wo I inch (25 mm) access	
		port standard		
		Centralized Information Centr	e: Microprocessor controlled	
		monitoring system	m ensures all controls & displays	
			are easy to reach and read	
		Security Key Lock	: Standard with unique key	
		option	0, 1, 1	
		Pad Lock Compatible	: Standard.	
		Door Lock	: Sturdy integrated key lock with	
			handle for single hand operation	
		Туре	: vertical	
		Temp. Range	: +4°C	
		Volume	: 1006 Lit	
		Control	: Microprocessor control	
		Refrigeration system	: Air cooled, CFC free	
		Dignlau	· Eve level Disital LED display	
		Display Define at Sections	: Eye level, Digital LED display	
		Derrost System	: Automatic Derrost	
		Temperature range	$\pm 1^{\circ}$ C to $\pm 12^{\circ}$ C (factory pre-set	
		Electrical system	· Automotic low voltage avega	
		protection with voltege hugh/h	. Automatic low voltage surge	
	Lab	Interior	UOSL.	
12	<u>Lan</u> Defnicenctors	acrears for assuration	: Stanness steel with rounded	
43	(Dual Class	Exterior Cohinet construction	· Hanny gauge and rolled steel	1
	(Dual Glass Door) :	exterior construction with a po	. Heavy gauge, cold-folied steel	1
	<u>Door)</u> :	exterior construction with a po	Costed point finish that resists	
		chipping and rust	Coated paint missi that resists	
		Insulation	\cdot 5 inch formed $-$ in \cdot place	
		nolvurethane insulation	1.5 men toamet – m – place,	
		Vacuum relief port	· Allows easy and quick access	
		after door opening	. Thows easy and quick access	
		Inner door	: 5 independent interior	
		compartment doors to reduce of	cold air loss	
			Improve temperature recovery	
		after door closing and to help r	naintain	
	1	abor brooms and to help I		1

		Cabinet temperature during		
		door opening.		
		Shelves : 5 sturdy, solid stainless steel		
		shelves to create 5 interior compa	artments	
		Filter	Easy to remove air filter	
		Access Port	Two 1 inch (25 mm) access port	
		standard		
		Centralized Information Centre:	Microprocessor controlled	
		monitoring system ensures all co	ntrols & displays	
			Are easy to reach and read	
		Security Key Lock	: Standard with unique key	
		option		
		Pad Lock Compatible	Standard.	
		Door Lock : Sturdy integrated key lock with		
		handle for single hand operation.		
		Power requirements	230 V, 50 Hz, single phase.	
		After-sales service	Prompt and efficient after-sales	
		service always available.		
		·····	Suitable servo voltage stabilizer	
		require for operation.		
4.4	Smaaifiaatian	Effective way to stope hi	alogical complex in cones	2
44	<u>Specification</u>	The system can safely be	Id samples for extended Periods	2
	<u>lor (Liquia</u> Nitrogon)	of time without replanish	ing I N2	
	I N2	• I N2 Capacity: 24.8 I	ling Linz	
	<u>L112</u> Container	• LN2 Capacity. 54.8 L	• LN2 Capacity: 34.8 L	
	Container	• stainless canistersS, 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 I N₂ evaporation 		
		 Durable aluminum construction and vacuum insulation 		
		 Durable auminium construction and vacuum insulation Lockable lid and optional low level alarm enhance sample 		
		• Lockable lid and optional low level alarm enhance sample		
		security		
		Application : Portable sample Storage Vessel		
		Level indicator with cry alarm		
		Roller bases for easy por	• 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	t H): 18.2 x 26.6 in (47.2 x 67.6	
		cm)approx		
		• Shipping weight : 18.Kg	approx	
		Instrument have CE Certified	1	
				<i>c</i>
45	<u>Horizontal</u>	1. A horizontal electrophore	esis system should be able to run	2
	<u>Electrophores</u>	the gel size of 7 x 10cm	x / X / cm, and 7 x 10 cm the	
	<u>is system</u>	gel tray should be suppli	ed along with the Gel tank with	
		satety lid.		
		2. The supplied get trays sh	ould be UV proof and the trays	
		can be directly kept on the	$U \cup V$ I ransiliuminator and fluorespont malar in the trans T^{1}	
		should have a integrated	nuorescent ruler in the tray. The	

ruler should get illuminated on exposure to UV Light for easy and safe calculation of the band movements.3. A system should include tape free gel casting module for leak free operations.	
a asy and safe calculation of the band movements.3. A system should include tape free gel casting module for leak free operations.	
15. A system should include tape free get casting module for leak free operations.	
leak nee operations.	
4 A system should include two 1 5mm combs 8- & 15-well	
fixed height combs each.	
5. A system should have the option for adjustable height	
combs with comb holders.	
6. Migration rate of Bromophenol Blue dye should be	
similar to 4.5cm/hr(at 75 V).	
7. A system should have a lid with the safety banana Jacks,	
8 Should be provided with a hubble leveler for even gel	
casting.	
9. The gel caster should have 3 height adjustable screws for	
balancing the uneven platforms for uniform gel casting.	
10. The electrodes should be color coded to remove the	
confusion of wrong orientation.	
11. The Lid should have a safety option so that the lid cannot be closed in the wrong orientation	
12. The Lid should have a integrated cables to connect it to	
the power pack directly.	
A system should be capable to run precast ready agarose	
and Hand Cast gels.	
Basic power supply:	
Programmable power supply should be capable to operate	
electrophoresis units simultaneously for four identical run	
with graphic LED display.	
The output range should be $10-300 \text{ V}$, 0.4-400 mA, 1-	
• Constant voltage, current or Power with Automatic crosse	
Memory storage: 9 programs 9 steps Timer Control : 9	
59 min	
57 11111	
Automatic Power up after Power failure, Safety features	
Automatic Power up after Power failure, Safety features No-load detection; sudden load change detection	
Automatic Power up after Power failure, Safety features No-load detection; sudden load change detection	1
46 UV UV Transilluminators	1
46 UV UV Transilluminators ators Single Wavelength	1
46 UV UV Transilluminators ators Single Wavelength 302nm (15 x 8 cm)	1
46 UV Transillumin- ators UV Transilluminators 59 hum UV Transilluminators 302nm (15 x 8 cm) Single Wavelength	1
46 UV Transillumin- ators UV Transilluminators 47 Water During transition Specification for Water Purification system	1
46 UV Transillumin- ators UV Transilluminators 47 Water Purification system (Milli Specification for Water Purification system Water Purification system canable of independently disponsing	1
46UV Transillumin- atorsUV Transilluminators46UV Transillumin- atorsUV Transilluminators47Water Purification system (Milli O water)Specification for Water Purification system Water Purification system capable of independently dispensing both Type I and Type II water • Type II able to use tap water as	1
46UV Transillumin- atorsUV Transilluminators46UV Transillumin- atorsUV Transilluminators47Water Purification system (Milli Q water)Specification for Water Purification system Water Purification system capable of independently dispensing both Type I and Type II water. • Type II able to use tap water as feed (able to accept upto 2000 micro Siemens conductivity • Tap	1
46UV Transillumin- atorsUV Transilluminators47Water Purification system (Milli Q water)Specification for Water Purification system Water Purification system capable of independently dispensing both Type I and Type II water. • Type II able to use tap water as feed (able to accept upto 2000 micro Siemens conductivity • Tap water should be treated in a pre-treatment cartridge for efficient	1
46UV Transillumin- atorsUV Transilluminators47Water Purification system (Milli Q water)Specification for Water Purification system both Type I and Type II water. • Type II able to use tap water as feed (able to accept upto 2000 micro Siemens conductivity • Tap water should be treated in a pre-treatment cartridge for efficient removal of particles, colloids, free chlorine and hardness •	1
46UV Transillumin- atorsUV Transilluminators46UV Transillumin- atorsUV Transilluminators47Water Purification system (Milli Q water)Specification for Water Purification system Water Purification system capable of independently dispensing both Type I and Type II water. • Type II able to use tap water as feed (able to accept upto 2000 micro Siemens conductivity • Tap water should be treated in a pre-treatment cartridge for efficient removal of particles, colloids, free chlorine and hardness • Reverse osmosis step should be water conservative and should	1
46UV Transillumin- atorsUV Transilluminators46UV Transillumin- atorsUV Transilluminators47Water Purification system (Milli Q water)Specification for Water Purification system Water Purification system capable of independently dispensing both Type I and Type II water. • Type II able to use tap water as feed (able to accept upto 2000 micro Siemens conductivity • Tap water should be treated in a pre-treatment cartridge for efficient removal of particles, colloids, free chlorine and hardness • Reverse osmosis step should be water conservative and should ensure constant flow rate and optimal water quality • All the	1
46UV Transillumin- atorsUV Transilluminators46UV Transillumin- atorsUV Transilluminators47Water Purification system (Milli Q water)Specification for Water Purification system Water Purification system capable of independently dispensing both Type I and Type II water. • Type II able to use tap water as feed (able to accept upto 2000 micro Siemens conductivity • Tap water should be treated in a pre-treatment cartridge for efficient removal of particles, colloids, free chlorine and hardness • Reverse osmosis step should be water conservative and should ensure constant flow rate and optimal water quality • All the cartridges used should have considerable life • Should have	1
Automatic Power up after Power failure, Safety features No-load detection; sudden load change detection46UV Transillumin- atorsUV Transilluminators5Single Wavelength 302nm (15 x 8 cm)47Water Purification system (Milli Q water)Specification for Water Purification system Water Purification system capable of independently dispensing both Type I and Type II water. • Type II able to use tap water as feed (able to accept upto 2000 micro Siemens conductivity • Tap water should be treated in a pre-treatment cartridge for efficient removal of particles, colloids, free chlorine and hardness • Reverse osmosis step should be water conservative and should ensure constant flow rate and optimal water quality • All the cartridges used should have electro deionisation or other equivalent or superior technology for ensure of the of the other equivalent or superior technology for	1
46UV Transillumin- atorsUV Transilluminators46UV Transillumin- atorsUV Transilluminators47Water Purification system (Milli Q water)Specification for Water Purification system Water Purification system capable of independently dispensing both Type I and Type II water. • Type II able to use tap water as feed (able to accept upto 2000 micro Siemens conductivity • Tap water should be treated in a pre-treatment cartridge for efficient removal of particles, colloids, free chlorine and hardness • Reverse osmosis step should be water conservative and should ensure constant flow rate and optimal water quality • All the cartridges used should have considerable life • Should have electro deionisation or other equivalent or superior technology for removal of ions • The resin beads used should be of superior audity and abardia pat darged by waters used should be of superior	1

		without affecting its quality • The module should be able to	
		continuously regenerate its beads used. Thereby effectively	
		reducing operational cost • The cartridges should be easily	
		replaceable • The replacement cartridges should not be very	
		expensive • The Equipment should have a low maintenance cost •	
		The generated water should be treated with UV to destroy	
		bacteria, before it is stored in the storage tank • The storage tank	
		should be capable of maintaining the purity of stored water • A	
		vent filter should be there for preventing airborne contamination.	
		• Biofilm formation should be prevented • The water dispenser	
		should be designed such that various small filters/cartridges can	
		be connected for obtaining specific quality water for different	
		research needs (Ultra pure water free of particulates, pyrogens,	
		nucleases, VOCs, endocrine disruptors and organics for LC. •	
		Should be able to dispense pre assigned volume of water •	
		Production rate minimum 3-5L/h • Should have calibrated meters	
		for continuous monitoring and display of water quality parameter	
		• Should have customisable alert and alarms. • Should meet	
		internationally recognised safety norms • Prompt services should	
		be available • A minimum warranty for one year. • AMC terms &	
		conditions beyond the warranty period to be specified \bullet	
		Three separate quote should be made: - 1) Water purification	
		system for Type I quality water. 2) Water Purification system for	
		Type II quality water. 3) An integrated water purification system	
		capable of producing and dispensing both Type I and Type II	
		water. • Type I water with the following properties o Resistivity $(100 - 1)^{10} = 10^{10} = 10^{10}$	
		$(MS2-cm) = 18.2MS2-cm$ (a) 25 deg C o Conductivity (μ S/cm) < 0.055 μ S/cm a TOC <5mb a Bostoria 0.22 μ m) < 1 a Chlarida	
		$(1.055 \ \mu\text{S/cm}\ 0.100 \ \leq \text{Sppb}\ 0.84 \text{Bacteria}\ 0.22\ \mu\text{m}) < 1.000 \text{Cmorde}$	
		(ppb) < 1 o 1 otal Silica (ppb) < 3 o Flow fate = $2L/\min \bullet$ Type II water with the following momentum Resistivity (MO am) = 12.15	
		water with the following property 0 Resistivity ($MS2-CHI$) = 12-15 MO100 ($MS2-CHI$) = 12-15	
		$(\mu_{2}, \mu_{3}, \mu_{3}) = 0.22 \mu_{3}$	
		2L/min	
48	Crvostat with	Specification : Freestanding, handwheel with marking. Low-	
	Microtome	temperature stabilizer for heat extractor motorized open-top	
		cryostat with independent specimen temperature control.	
		1. Prism of 90° for direct specimen freezing on specimen head	
		with clamping screw to facilitate specimen trimming. Removable	
		heated glass sliding window.	
		2. Cooling via two separate refrigeration system.	
		3. Cryochamber temperature setting down to -40 °C in 1° steps.	
		Permanently cooled (down to -45°C) guick-freeze shelf for 10	
		specimen discs.	
		4. Programmable automatic 24-hour defrost cycle. Defrost cycle	
		duration programmable from 6 to 12 minutes. Additional manual	
		defrost feature.	
		5. Menu-driven Counterbalanced handwheel, lockable in two	
		positions, for manual sectioning. Locking status indicated on	
		display.	
		6. Motorized sectioning: Motorized sectioning operated via	
		control panel and foot switch. Section counter with reset.	
		Sectioning window adjustment. Handle of the handwheel can be	
		centered in motorized operation. Emergency stop switch. 3	
		sectioning modes: intermittent, single and continuous stroke.	
		Sectioning speed ranges selectable: 0.1 - 170 mm/s 0.1 - 100	

mm/s Additional maximum speed setting of: 210 mm/s	
7. Specimen temperature control: Specimen head with specimen	
temperature control. Temperature setting range: -10 °C to -50 °C	
in 1° increments. Specimen quick-freeze feature. Manual	
defrosting.	
8. Stainless steel rotary microtome. Section thickness range:0.5	
to 300 μ m X/Y/Z specimen precision orientation of 8°. Specimen	
retraction: 50 μm maximum specimen size 40 mm x 55mm	
(maximum of 55 mm diameter).	
9. Total horizontal specimen feed: approx. 25 mm Total vertical	
stroke: approx. 60 mm Programmable trimming: 5 - 150 μm,	
selectable in 6 discrete steps, in 5, 10, 30, 50, 100 and 150 µm	
increments. Motorized coarse feed: 500 µm/s and 1000 µm/s.	
10. Convenient section thickness selection from outside the	
cryochamber. Reproducible high-quality thin sections via step	
motor specimen feed Programmable reverse section counter.	
11. Spacious cryochamber, easy to clean/disinfect Section	
thickness totalizer Encapsulated microtome to support efficient	
low-temperature spray disinfection.	
12. Technical Data: Mains power supply: 230 V/50 Hz	
Dimensions: Width (incl. handwheel): 882 mm / 34.72 inches	
Depth: 766 mm / 30.16 inches Height: 1,040 mm / 40.94 inches	
Weight: approx. 180 kg / 396.48 lbs. All specifications related to	
temperature are valid for a room temperature up to 22°C and a	
relative air humidity of 60 %.	
13. One set of specimen discs 25 and 30mm each, Storage shelf,	
section waste tray, rubber mat, brush shelf 1 tool set, fine brush	
1, 1 brush with magnet, 1Set of Allen keys, 1 Set of Single-head	
wrench, 1 Bottle of OCT Compound, mounting medium for	
cryosectioning, 125 ml 1 Bottle of cryostat oil 50 ml. Knife holder	
base for CN and CE holder, Knife holder CE for high profile	
disposable blades with lateral displacement features. High	
profife disposable blades (80mm long, 14mm high total 50	
blades, 4 each), 5 each embedding medium for cryosectioning	
(OCT compound) 125ml	

1. General Instructions:

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

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:// <u>wbtenders.gov.in</u>. 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 2014-15, 2015-16& 2016-17 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) BasicInformation (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 2013-14, 2014-15 & 2015-16 in "Accounts" folder.

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

II. <u>My Document (Non-Statutory Cover) containing as follows:</u>

Sl.N o.	Category	Sub-Category	Sub-Category Description	
	Certificates		PAN Card of the Bidder	
1		Certificates	VAT/ CST /GST Registration Certificate	
			Exemption Certificate for paying EMD for the current financial year (if any)	
			Trade Licence/Enlistment Certificate	
2	Company Details	Company Details 1	Registration with Registrar of Companies	
			Memorandum of Articles for Limited Companies.	
3	Credential	Credential 1	 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		Income Tax Returns submitted for the Assessment year 2014-15	
		Payment Certificate 1	Income Tax Returns submitted for the Assessment year 2015-16	
			Income Tax Returns submitted for the Assessment year 2016-17	
			VAT/CST/GST Returns (of the last quarter) for the year 2014-15	
		Payment Certificate 2	VAT/CST/GST Returns (of the last quarter) for the year 2015-16	
			VAT/CST/GST Returns (of the last quarter) for the year 2016-17	

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

<u>Bill of Quantities (BOQ)</u>: 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 beopened 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, GBP, 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 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.
- 9.9 **DSIR Certification**: The Cooch Behar PanchananBarma 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 Geography, Cooch Behar PanchananBarma University, Cooch Behar -736101.
- 9.14 **Payment Schedule**: Payment be made after delivery and installation of the items.

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, 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 2015-16.
- 9.19 **Disposal of Disputes**: In case of any dispute, the University's decision will be treated as the final and conclusive. All legal actions are subject to Kolkata 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 hereinabove for selection of responsive vender.

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	28.12.2017	
2	Documents download (online)	28.12.2017 (from 6.00 p.m.)	
3	Bid Submission Start Date(on line)	28.12.2017 (from 6.00 p.m.)	
4	Bid Submission Closing Date (Online)	17.01.2018, (up to 11.00 a.m.)	
5	Bid Opening Date (Online) – Technical Bid	19.01.2018 (from 11.30 a.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	

10. Dates & Information:

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

 \Box 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

 \Box 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

 \Box 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, GBP) 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.

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	Yes/No
	for supplying similar nature of	(Please put tick mark)
	Items at Educational Institute of	
	Higher Learning?	
	(Please enclose copy of Purchase	
	order & user list, if yes)	
9	Annual Turnover as per Audited	2014-15 :Rs
	P/L ACCOUNTS & BALANCE	2015-16 :Rs
	SHEET	2016-17 :Rs
		Average Annual Turnover: Rs
10	Status of the hidder (Please enclose	Manufacturer/Dealer/Distributer/Selling
10	conv authenticating vour status)	Agent/Stockiest
	copy authenticuting your status)	(Please nut 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 Head

Department of Zoology Cooch Behar Panchanan Barma University Cooch Behar-736101 West Bengal

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 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 :-

Contact no: E-mail address Postal Address: Signature of applicant including title and capacity in which application is made.

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.

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).