



WEST BENGAL STATE UNIVERSITY

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Ref:..WBSU/Reg./SQ/403/11-12...

Date: 04/01/2012

Sealed Quotations are invited as per the technical specifications for the following instruments

Last date of submission: 20.01.2012, 5.00 pm

Opening of the quotations: 23.01.2012, 3.00 pm

1. Final selection will be done on the basis of both quality and indexed price.
2. Service of the instrument providers will be considered seriously.
3. Price of the instruments should be considered on the basis of DSIR recognized institute.
4. Package price will also be entertained.
5. Strictly mention the **Item no.** and **(Kind attention: Chiranjib Pal, Department of Zoology)** on the top of the sealed envelopes.
6. Quotations must be addressed to **The Registrar, West Bengal State University, Barasat, 24 PGS (N), PO: Malikapur, Kolkata-700126.**

Item No.	Technical Specification for the Instruments	Qt.
No. 1	<p>MICROPROCESSOR CONTROLLED UNIVERSAL REFRIGERATED HIGH-SPEED TABLE TOP CENTRIFUGE (FOREIGN MAKE).</p> <p>FEATURES:</p> <ul style="list-style-type: none">• Maintenance-free induction drive.• Microprocessor with large LCD display.• Motor driven lid lock.• Automatic rotor identification system with over speed protection.• Active imbalance-identification and -cut off.• Imbalance tolerant drive pin.• A large variety of rotors and accessories.• CFC-free refrigeration system.• Standstill cooling.• Audible signal at the end of each run with several melody options.• Noise level under 60 dBA at max. speed.• Simple One handed operation.• Easy to program with gloves on.• Splash proof digital display.	1

	<ul style="list-style-type: none"> • Permanent indication of Preset and Actual Values. • Selection of speed in both rpm and g-force, with increments of 10. • 10 acceleration and deceleration rates with storage of up to 99 runs. • Direct access to parameters; no click through the program. • Temperature selection available in either °C or °F. • Pre-selection of the running time from 30 sec to 99 h 59 min or continuous. • Pre-cooling program option. • Quick-key for short runs. <p><u>SPECIFICATIONS :</u></p> <p>Compatible Swing out/ Angle rotor for 12 x 1.5/2.0 ml tubes Max. Speed : minimum 14000/ maximum 30000 rpm Max. RCF : minimum 16000/ maximum 65390 x g</p> <p>Compatible Swing out/ Angle rotor for 6 x 50 ml tubes Max. Speed : minimum 14000/ maximum 21000 rpm Max. RCF : minimum 11000/ maximum 41500 x g</p> <p>Compatible Swing out rotor with 2 x 3 carriers for microtitre plates Max. speed : minimum 4500 rpm Max. RCF : minimum 2739/ maximum 3400 x g</p>	
No. 2	<p>SPECIFICATIONS FOR GRADIENT THERMAL CYCLER (Foreign make)</p> <p><u>FEATURES:</u> The devise should be LICENSED AND AUTHORISED FOR PCR Upgradeable to real time PCR Sample Capacity 96x0.2ml Test Tube or 1 PCR plate 8 x 12 (unskirted, semi-skirted, skirted - according to SBS standard) Gradient range from 1 °C to 24°C Cushion type lid with temperature Range : 37 °C to 110 °C Block Homogeneity :±0.3 °C Control Accuracy : ± 0.2° C Silver block with heating rate approx. 6 °C/s, and cooling rate 4.5 °C/s. Initial ramp rate should be up to 8 °C/s.. Temperature gradient over 12 rows Gradient blocks with steady slope technology Intuitive graphic programming Should have pause command, programmable alarm sound, freely configurable auto-restart dialogue, password protection, report filing facility for each run, incl. total temperature profiling Development testing & validation of the software using certified standards Sequenome protocols / TAIL PCR and similar applications should be performed More than 100 user-defined folders Memory capacity >600 programs Maximum number of cycles – 99.</p>	1
No. 3	<p>Scientific Color Microscopy camera with imaging software and Fluorescence Filter for DAPI detection (Foreign Make).</p> <p>Sensor: Micron MT9P031, 5 Megapixels, color, CMOS</p>	1

	<p>Basic resolution: 2560 (H) x 1920 (V) = 5.0 Megapixels Pixel size: 2.2 µm x 2.2 µm Sensor size: 5.7 mm x 4.28 mm equivalent 1/2.5" (diagonal 7.1 mm) Live frame rate (depending on hardware and software configuration): H x V Frame Rate 800 x 600 max. 13 Digitization: 3 x 8 bit/pixel Integration time: 10 µs up to 2 s Interfaces: 1x SD card slot, 1x mini USB 2.0, 1x AV (S-Video), 1x DVI-D (HDMI) Spectral range: Approx. 400 nm-700 nm, IR-Filter Read-out mode: Progressive Optical interface: C-mount Housing: blue anodized aluminium Registration: CE Ambient conditions: +5° ...+45° Celsius, 10% ... 80% relative air humidity,not condensing, ree air circulation required Standalone features: Power supply via USB 2.0 or external power supply (optional) Dual color LED: Power on and ready for capture (green); Recording (blinking green); Not ready (red); Error (blinking red) Integrated slot: SD card slot for SD and SDHC cards Recording: Switch for image capture Set new white balance: Switch for new setup Supported operating systems: Windows XP x32 Prof. SP3 and Windows 7 x32 Ultimate</p> <p>imaging software : point to point measurement & Annotation - captured image, scale bar micron Measurement tools & Annotation - captured image (Calibrate your camera, Display calibration bar, Measurements: Line, Angle, storage in separate file).</p> <p>Filter set DAPI shift free EXG 365, BS FT 395, EM BP 445/50.</p>	
No.4	<p>Power Supply for Electrophoresis (Foreign Make)</p> <p>Display : LCD Display; Output range (programmable) Volts : 10-300 V, Current : 4-- 400 mA, Power : 75 W; Type of Output : Constant voltage, constant current or constant power; Automatic crossover : Yes; Timer : 1 min- 99 hr, 59min; Volt - hour control : Suitable Adaptors required for connectivity.</p>	1
No. 5	<p>SINGLE/ RATIO BEAM UV-VIS SPECTROPHOTOMETER (FOREIGN MAKE)</p> <p>Wavelength range : 190 to 1100nm or 200 to 800 nm Spectral bandpass : 4nm Stray light : 0.05% or less (220nm for NaI, 340nm for NaNO2) Wavelength accuracy : ±0.5nm (at 656.1, 486.0nm) Wavelength setting : ±0.3nm repeatability : -3 to 3Abs Photometric range : 0 to 300%T : Conc: 0.000 to 9.999</p>	1

	<p>Photometric accuracy : ± 0.002 Abs (0 to 0.5 Abs) (certified according to : ± 0.004 Abs (0.5 to 1.0 Abs) NIST SRM 930) : $\pm 0.3\%$ T Photometric repeatability : ± 0.001 Abs (0 to 0.5 Abs) (certified according to : ± 0.002 Abs (0.5 to 1.0 Abs) NIST SRM 930) : $\pm 0.15\%$ T Wavelength scan speed : 10, 100, 200, 400, 800, 1200, 2400, 3600 nm/min Baseline stability : 0.0004 Abs/h (at 500 nm) Noise level : ± 0.00015 Abs (at 500 nm) Baseline flatness : ± 0.002 Abs (within 200 to 950 nm) Light source : WI and D2 lamps/ Xenon Flash Lamp Light source changeover : Auto (at 340.0 nm) Detector : Silicon photodiode or CMOS photodiode array Display : LCD with backlight (12.2 cm) Printer I/F : Centronics interface Serial I/F : RS-232C (exclusive for UV Solutions program) Size (main unit) : 380 (W) \times 643 (D) \times 311 (H) mm Weight (main unit) : About 27 kg Power supply : 100, 115, 220, 230 or 240V, 50/60 Hz Power consumption : 300 VA</p> <p>With MICRO CELL HOLDER (SPECIFICATIONS):</p> <ul style="list-style-type: none"> • Wavelength range : 220 to 950 nm • Cell mounting /dismounting repeatability : Within $\pm 0.3\%$ T • Noise level : Within 0.004 Abs <p>With UV SOLUTION PROGRAM ALONG WITH BRANDED COMPUTER Of Latest Configuration With PRINTER & UPS</p>	
No. 6	Rotary Microtome	1
No. 7	Split Air conditioner (Branded) Capacity- 1.5 ton With 1+ 4 years warranty coverage	1

A. Talapatra
4/1/12

Registrar
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