



**OFFICE OF THE REGISTRAR :: DIBRUGARH UNIVERSITY :: DIBRUGARH**

No. DU/RG/B.01.07/16/2045

Date: 21/12/2016

**Notice Inviting Quotation**

Sealed quotations are invited from reputed firms/authorized dealers for the supply and installation of the following items for Department of Life Sciences, Dibrugarh University as per specification mentioned below. The quotations will be received by the undersigned on or before **05/01/2017 upto 11:00 A.M.** and will be opened on the same date at **11:30 A.M.** in the presence of the intending quotationers or their authorized agents.

<b>Sl. No.</b>	<b>Particulars</b>	<b>Preferred Brand</b>	<b>Qty.</b>
01	<p><b>2-D gel electrophoresis</b></p> <p><b>Specifications:</b> <b><u>First Dimension Specifications with Software:</u></b></p> <ul style="list-style-type: none"><li>• System should include Individual Lane Control for running different samples, pH Gradients and focusing protocols in a single run.</li><li>• System should have touch screen User Interface for easy creating and editing protocols and setting up the program rapidly.</li><li>• System should include dedicated site for online data interpretation for Graphing data, Comparing lanes and generating reports.</li><li>• System should include USB Port to export data for storage and analysis</li><li>• System should include run mode flexibility- to run IPG strips gel Side Up, Gel Side Down and with cup loading configuration.</li><li>• System should have voltage 0–10,000 V, 1 V increments(50-10000V)</li><li>• Current range should be 0–100 <math>\mu</math>A per lane, 1 <math>\mu</math>A intervals</li><li>• Power range of 0–1 W per lane.</li><li>• System should have peltier based cooling platform.</li><li>• Temperature range should be 10–25°C <math>\pm</math>1.0°C @ max ambient 23°C 18–25°C <math>\pm</math>1.0°C @ max ambient 31°C.</li><li>• Focusing trays should be made of polycarbonate for contaminant free process.</li><li>• System should accommodate IPG strip length 7, 11, 13, 17, 18, and 24 cm.</li><li>• System should have display QVGA resolution (320 x 240) touch screen or mouse control</li><li>• System should have ramping Step, linear, gradual, and hold voltage ramping for each focusing step. Hold mode as a final step to prevent diffusion when IEF is complete</li><li>• System should have 2GB capacity for storing protocols</li><li>• Data collection should be in .dat format</li><li>• Should be supplied with suitable PC &amp; UPS</li><li>• System should have following regulatory compliances:<ul style="list-style-type: none"><li>• Safety EN 61010-1:2001, IEC 61010-1:2001 Use NRTL to test for compliance to UL61010-1:2004 and CAN/CSA C22.2 No. 61010-1-04</li><li>• EMC EN61326 (1997 w/A1:98) Class A FCC Code of Federal Regulations, Title 47, Part 15, Subpart B, Class A</li></ul></li></ul>	Bio-Rad	1

	<ul style="list-style-type: none"> <li>Other approvals RoHS/WEEE Research Materials to determine level of EFUP</li> </ul> <p><b>Image analysis 2D Software</b></p> <ul style="list-style-type: none"> <li>Gaussian modeling based software</li> <li>Sophisticated algorithms for Automatic Spot Detection &amp; Quantification.</li> <li>Spot detection summary matching summary, replicate group consensus tool to optimize spot detection and matching parameter</li> <li>Sypro ruby filter for auto recognition and removal of background speckles</li> <li>Simultaneous analysis of upto 15 gels</li> <li>Upgradeable for DIGE analysis</li> <li>Statistical analysis wilcoxon paired sample algorithm for providing accurate statistical comparison.</li> <li>User adjustable significance level</li> <li>Boolean analysis by using different set and subset</li> <li>Gel land marking and automatic spot matching</li> <li>Sophisticated variable background removal to quantitate low abundance protein</li> <li>Can Export XML data and JPEG file format</li> <li>Should be GLP/GMP Compliant, and should have facility for 21CFR Part 11 compliance in future.</li> </ul> <p><b><u>Second Dimension Specifications:</u></b></p> <p><b>Mini Vertical gel Specification- for 8 X 7 cm gels</b></p> <p>High throughput- Capable of running up to 4 mini gel (8 X 7 Cm) simultaneously  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.</p> <p>Permanently bonded spacer plates for leak proof, without agarose sealing &amp; tape  Casting frame with simple cam closure mechanism that gives precision alignment  Side by side casting stands that allow access to both gels simultaneously.  Patented colored sample loading guides to prevent the skipping or repeated loading  Modular design can be used to do western blotting by using the blotting module  Should able to run gels in 15-20 mins.  Should come with buffer dam.</p> <ul style="list-style-type: none"> <li><b>Guarantee period</b> : Preferably 2 years</li> </ul>		
02	<p><b>Green House (240 sq meter) with temperature, humidity and light control device for insect culture maintenance</b></p> <p><b>Specifications:</b></p> <p><b>Structure:</b></p> <ul style="list-style-type: none"> <li><b>Frame:</b> All the structures are Galvanized Aluminum with columns size: 47mm x47mm.</li> <li><b>One complete set</b></li> </ul> <p><b>Double door room and door:</b></p> <ul style="list-style-type: none"> <li><b>Double Door Room</b> of size 5ft. x 5ft. x 7ft. (LxWxH) = 25 Sq.ft.</li> <li><b>Door:</b> 2 No's Sliding Door of Each size: 6.5ft. x 2.5ft. (Long &amp; wide) completes clear 6 mm polycarbonate glazing, top &amp; bottom tracks, jambs, flashings &amp; installation hardware.</li> <li><b>N-Heat Dispenser.</b></li> <li><b>One complete set</b></li> </ul> <p><b>Cladding system :</b></p> <ul style="list-style-type: none"> <li>Roof, end wall, front wall &amp; sidewalls of the greenhouse-sets and pre entry room for rigid covering by 6mm thick clear multiwall Sabic polycarbonate sheet,Aluminum Profile, EPDM gasket, Silicon</li> </ul>	Saveer Biotech	1

	<p>sealant, and accessories.</p> <ul style="list-style-type: none"> <li>• One complete set</li> </ul> <p><b>Cooling system:</b></p> <ul style="list-style-type: none"> <li>• Water pad cooling system: Slow speed Axial Fan 36" 1 No imported with CH2, HD motor fixtures and a 500 liter water tank to distribute and collect water from pad, cel-pads complete 4" thick 5' width, 12' length with IZ-AL-S4 system lowers by 8°C±2° at outside max. 62% RH (subject to ambient 35°C or above) or low.</li> <li>• One complete set</li> </ul> <p><b>Shading system:</b></p> <p><b>External shading system:</b></p> <ul style="list-style-type: none"> <li>• 75% shading net (agro shade net) with manual arrangement connecting pipe etc. can be rolled when it's not required</li> <li>• One complete set</li> </ul> <p><b>Light:</b></p> <ul style="list-style-type: none"> <li>• <b>Photosynthetically Active Radiation Lamp:</b> PacRa™/PAR with PacRa W1.7 to 2.6/60 OacRa™ 40 watts are specific action spectra lamps for photosynthesis with electronic gear for research purpose. They are DIN Germany, IEC international, &amp; JIN Japan standard lamps PacRa™ lamp.</li> <li>• <b>Economical Excellent Light:</b> Fluorescent lamp/tube for general illumination in double door room to eradicate the darkness.</li> <li>• <b>Quantity : 6 no.</b></li> </ul> <p><b>Fogging System:</b></p> <ul style="list-style-type: none"> <li>• For maintaining up to 85% Relative Humidity with connected 1.5HP motor with screen filter, fogging nozzles, pipes and Polymer water tank with capacity 500 ltr.</li> <li>• Qty. 1 complete set</li> </ul> <p><b>Benching system :</b></p> <ul style="list-style-type: none"> <li>• Galvanized benching system (L x W X H)-( 8' x 3' x 2').</li> <li>• Qty. <b>4no.</b></li> </ul> <p><b>Civil Work:</b></p> <p><b>Foundation Wall</b> for greenhouse and pre entry room WIDE BASED 2' above earth's surface, as kick-board 9" wide. Frame base block height 2'</p> <ul style="list-style-type: none"> <li>• Structure will be raised on C.C column 1' x 1' x 2'.</li> <li>• Plinth protection 1' all around the greenhouse and pre entry room periphery.</li> </ul> <p>Hard flooring with anti-slippery tiles.</p> <ul style="list-style-type: none"> <li>• <b>Completed job</b></li> </ul> <p><b>Electrical wiring :</b></p> <ul style="list-style-type: none"> <li>• All wires will be of copper and desired load (Make-Kalinga/Plaza) and switches imported make, extra switches also provided as standby. Each feature has own electric line with MCB and will be underground in PVC pipe complete set with A grade work. Separate electrical work, panel board and main switches as well.</li> <li>• <b>Completed job</b></li> </ul> <p><b>Miscellaneous :</b></p> <ul style="list-style-type: none"> <li>• Water sprayer 15 Ltr. Capacity, washbasin, plumbing Polymer pipes etc. All fittings of ISI or equivalent material.</li> <li>• One complete set</li> </ul> <p><b>ISO certificate :</b> The agency should have ISO certificate</p>		
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	<ul style="list-style-type: none"> <li>• Guarantee period : as applicable, preferably two years</li> </ul>		
03	<p><b>StereoZoom trinocular microscope with CCD camera</b></p> <ul style="list-style-type: none"> <li>• <b>Eye piece : Wide field high eye point doptor adjustment</b></li> <li>• <b>Viewing head : trinocular, 45 0 inclined with 360 0 rotatable</b></li> <li>• <b>Zoom objective : 0.65x5.5</b></li> <li>• <b>Magnification : 6-55X</b></li> <li>• <b>Working distance : 110mm ( Standard ) 1x, Magnification range : 6.5X to 55X</b></li> <li>• <b>Stand with focus arm : Arm type stand, Rack and rail ( Pinion ) type focusing system, knob tension adjustable. Focusing range:50mm.</b></li> <li>• <b>Illuminators : Dual Light System with Large sector LED Transmitted Illuminator with 100mm dia. For transmitted light systems Provided Glass Plate and Opal &amp; Black Acrylic Plastic Plate Diameter 100mm alongwith incident LED illuminator. Both illuminators brightness controlled by intensity regulators.</b></li> </ul> <p><b>‘DGI-510 CCD’ CCD camera attachment for microscope with image capture &amp; online measurement software</b></p> <p><b>Camera Sensor</b> : 5.24 megapixel color CCD  <b>Scan Mode</b> : Progressive  <b>Image Sensor</b> : 2/3” (7.60mmH, 6.20mmV, Diagonal 7.959mm)  <b>Effective Pixels</b> : 2592 X 1944,  <b>Pixel Size</b> : 4.65µm x 4.65 µm  <b>Frame Size and Rate</b> : 12 fps @ 1360 x 1024 (Multiple Speed Level)  <b>Signal/Noise Ratio</b> : 70dB  <b>Digital Output (A/D)</b> : 8 R,G,B to PC and 12-bit Parallel  <b>G Sensitivity</b> : 400mV with 1/30s Accumulation  <b>Power Requirement</b> : USB bus power, and external 5VDC – 2.5A power supply  <b>Operating Temperature</b> : 0° C to +60° C  <b>Operating Humidity</b> : 5%-100%, Non-condensing  <b>White Balance</b> : One Push ROI White Balance/Manual Temp-Tint Adjustment  <b>Gain</b> : Programmable  <b>Interface Connector</b> : Standard USB 2.0 high-speed interface  <b>Dimensions (L x W x H)</b> : 3.85 x 2.00 x 2.75 inches  <b>Lens Mount</b> : C-Mount lens adapter  <b>Binning</b> : 1x1, 3x3 &amp; 5x5.  <b>Exposure</b> : Normal Exposure : 0.22-119.37ms, ROI Auto &amp; Manual  Long Exposure : 119.37ms-4mins  <b>Colour Rendering</b> : Ultra Fine™ Colour Engine  <b>Technique</b>  <b>Capture / Control API</b> : Twain  <b>Capture Mode</b> : Still Picture and Video</p> <ul style="list-style-type: none"> <li>• <b>Digicam online measurement as well as analysis software</b></li> </ul> <p><b>Advanced features:</b>Measurement on live zoom preview. Capture still and video format. Capture at time interval ( Time Lapse ), Instant image capturing, Real time full screen image. Programmed interval captures. Video capture by time settings. Easy measurement calibration. Background correction. Measurement in microns, inches, millimeters, Length measurements Ellipse, Rectangle, Irregular shape measurements  Perimeter, Radiious, Circumference measurements Angle measurements.  Magnifier (zoom) function  Distant Image sharing. On-line files sending/receiving. Image amalgamation.  Image adjustment effects  Data export. Report generating and print out. Interactive file format. Scale Bar ( Micron Bar ).</p>	Olympus/ Dewinter	1

	<p><b>Biowizard</b> : Image analysis software  Measurements :  (a) Spatial Calibration (b) Line Measurements for Distance, Length, Width, Perimeter, Angle, Three point Radius. (c) Area by enclosed line controlled by four arrow keys available on the keyboard arrow with zoomed preview. The Line measurement is not effected on zoomed images.  Count &amp; Classification :Identification of objects in an image, count them, obtain several features measurements. Objects identification by user or automatically. User defined classification on basis of size or intensity.  Particle Size:Manual, Auto bright and dark methods to identify intensity range defined object to be measured. Various calculation &amp; measurements available for selected Particle are : Dimensions, Area, Perimeter, Ferrite Length, Min/Max Radius, Thread (Length, Width), Fiber (Length, Width).  Morphometry  Report :  (a) Three Options: DirectPrint out wrthOriginal image&amp; Tabular Results.  (b) Export to MS Office (c) Excel for further modification.</p> <ul style="list-style-type: none"> <li>• <b>Supplied Complete with Latest Branded LAPTOP (Lenovo/Dell/HP etc. ) with corei5 processor, 500GB HDD, Graphic Card with DVD Rom. OS Window 7, 8 or 10.</b></li> <li>• <b>Guarantee period : As applicable, preferably two years</b></li> </ul>		
04	<b>Battery for UPS (5 KVA)</b>	--	<b>20</b>

**Terms and Conditions:**

1. No separate quotation paper will be issued from the office. Quotation should be submitted in the Supplier's Letter Pad with supporting documents.
2. The University reserves the right to accept or reject any or all the quotations without assigning any reason.
3. The quantity mentioned above may be increased or decreased at the time of order as per actual requirement.
4. Payment will be made only after the successful after receipt of the materials in good condition.
5. The quotation should be addressed to the "**Registrar, Dibrugarh University, Dibrugarh – 786004**" super scribing the Quotation Notice Number on the envelope.
6. Any kind of VAT/ Taxes (if any) must be clearly indicated in the quotation.
7. The tendering firms must obtain Proper Authorization from the OEM.
8. The tendering firms must have proper PAN/TIN No. and the same shall have to be submitted along with quotations.

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