

MAHARSHI DAYANAND UNIVERSITY ROHTAK TENDER NOTICE

Sealed Tenders are invited subscribed as “Tender for Equipments” for supply of Instruments along with earnest money equal to 2% of the quoted rates on the total amount involved in the shape of Bank Draft along with a separate draft of Rs. 1000 as tender fee in favour of Finance Officer, M.D. University, Rohtak so as to reach the Department of Environmental Sciences up to 17-12-2012 . The Tenders will be opened on 19-12-2012. For details may visit university website www.mdurohtak.ac.in

Registrar

NOTE TO BE PUBLISHED IN PRESS (only for display on website and to supply to the firm)

Sr. No	Name of Instrument	Quantity
1.	<p style="text-align: center;"><u>REFRIGERATED CENTRIFUGE</u> MAKE- SIGMA, THERMO SCIENTIFIC, EPPENDORFF, HITACHI</p> <p><u>Technical Specifications:</u></p> <ol style="list-style-type: none"> 1. Maximum Speed:18,000 RPM 2. Maximum RCF: 27,000 x g 3. Maximum Capacity: 1,000 ml (4 x 250 ml) 4. Drive Mechanism: Brushless Induction 5. Control: Microprocessor based 6. Automatic Rotor Lock System 7. Speed Range: 300-18,000 RPM (100 RPM increments) 8. Speed Accuracy: ± 20 RPM 9. Speed / RCF Conversion 10. Timer: 1 min - 99 Hrs 59 mins plus HOLD function 11. Display: Backlit LCD 12. Operating Noise: <58dB (A) 13. Temperature Range: -20°C to +40°C 14. Temperature Accuracy: $\pm 2^\circ\text{C}$ 15. Memory: 9 Programs 16. Acceleration/Deceleration: 9 stages / 9 stages 17. Automatic Rotor Identification 	1

	<p>18. Imbalance Detection</p> <p>19. ISO & CE Certified</p> <p>20. Power Supply: Single Phase AC 220V - 240V, 50/60Hz, 10A</p> <p><u>Rotors required:</u></p> <p><u>i.</u> 6×50 mL angel rotor.</p> <p><u>ii.</u> 4×250 mL swing our rotor.</p> <p><u>iii.</u> 12×15mL angel rotor.</p>	
2.	<p><u>GEL DOC SYSTEM</u> MAKE-BIO-RAD, SIGMA, GE HEALTHCARE</p> <p><u>Specifications:</u></p> <ol style="list-style-type: none"> 1. Imaging system should have Automatic capabilities with application driven, user selected or recalled by protocol. 2. Should have 100% repeatability via recallable protocols. 3. System should have pre-calibrated focus for any zoom settings & Sample height. 4. Versatile system to support wide range of applications like- Fluorescent dye like syber green, syber safe, western blotting, 2-D,1-D, Dot blotting, Nucleic acid detection, Qunatitation etc. 5. Should have true 16 bit true CCD camera with resolution of 1392 x 1040. 6. System can take max. sample size 21 x 25. 7. System should have pre-calibrated & optimized dynamic image flat fielding. 8. It should have universal dark hood and upgradeable to chemilumniscence. 9. Should have motorized zoom lens-f/1.2, 12-75 mm with numerical feedback value to reduce the experimental variation – 	1

	<p>Capable of optimizing, saving, and quickly recalling the imaging acquisition settings.</p> <p>10. Safe DNA Imaging without UV exposure –using the XcitaBlue Conversion screen to prevent damage from UV and preserve samples for downstream protein production.</p> <p>11. Should come with 1 D analysis software with following features.</p> <p>Single mouse click from image capture to results and reports, very fast and efficient.</p> <p>Should have comprehensive automated quantitative analysis of proteins & DNA samples in seconds.</p> <p>Intuitive and well organized (efficient) selection of workflows based on applications.</p> <p>Should calculate precisely consistently and automatically applied for every zoom position and sample height .No user intervention for focusing .All calculations are done at setup, once and for all images captures.</p> <p>Image resolution > 5 mega pixels for resolving closely spaced bands on a gel or blot.</p> <p>Pixel size 4.6 X 4.6 μm.</p> <p>Linear dynamic range > 3.0 orders for all samples.</p> <p>No camera adjustments for image acquisition so user does not have to zoom, focus, adjust aperture or select light source.</p> <p>Provides modularity with four samples trays to image a wide variety of applications-</p> <p>UV for trans-UV illumination and protein detection via colorimetric and fluorescent stains.</p> <p>White for trans-white illumination. Blue for trans-blue illumination.</p> <p>Flexibility of Stain-Free for stain- free gels and blots. Eight position filter wheel for multiplexing.</p> <p>Sample trays are customizable per user and recognized automatically to facilitates multi-user and multi-lab instruments.</p> <p>Only one emission filter should be needed to accommodate a large portfolio of detection methods : ethidium bromide ,SYBR® Green , SYBR® Safe , SYBR® Gold, GelGreen, GelRed, Fast Blast™ ,SYPRO Ruby, Flamingo™ ,Oriole™ ,CY3, rhodamine, green fluorescent protein ,Hoechst, Krypton, silver stain, copper stain ,zinc stain, Coomassie Brilliant Blue, Coomassie Fluor Orange and other spectrally similar stains, labels, and dyes.</p> <p>Has lens flat-fielding calibration for each sample tray to delivers image data that are always optimized and reproducible without imaging artifacts, providing superior image uniformity and quantitation.</p>	
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3.	<p style="text-align: center;"><u>WATER BATH-SHAKER:-</u></p> <p>MAKE: NSW, METREX, LABTECH, LD ANNALAB</p> <p>Quantity-1</p> <p>Dimensions: WxDxHmm. = 734x344x300</p> <p>Material: exterior-powder coated steel</p> <p style="padding-left: 40px;">Interior-seamless corrosion resistant stainless steel</p> <p style="padding-left: 40px;">Universal spring rack</p> <p>Capacity:30 litres</p> <p>Temp. Range: Ambient+5°C to 100°C</p> <p>Accuracy:± 0.1°C, Uniformity : ± 0.5°C</p> <p style="padding-left: 40px;">Microprocessor based temp. Controller cum indicator</p> <p>Shaking speed: 20 to 250 stroke/minute, Digital speed control</p> <p>Safety: over temp. cut off</p> <p>Electric supply:220V 50/60Hz</p> <p>Accessories: Gabled lid, Stainless Steel Spring Rack, steel rack with with clamps for holding flasks.</p>	1
4.	<p><u>HOT AIR OVEN</u></p> <p>MAKE: NSW, METREX, LABTECH</p> <p>Specifications:</p> <p>Dimension: 600x900x600 (WxHxD mm)</p> <p>Temperature: Ambient ± 5°C-250°C, with accuracy of ±1°C</p>	1.

5.	<p>Microprocessor based PID digital temp. indicator cum controller</p> <p>Digital timer of 99 hrs with built in alarm system</p> <p>Material: interior-stainless steel-304</p> <p style="padding-left: 40px;">Exterior-epoxy powder coated steel.</p> <p>Insulation: glass wool</p> <p>Adjustable 2-steel(304) perforated shelves.</p> <p><u>AUTOCLAVE - VERTICAL</u></p> <p>MAKE: NSW, METREX, LABTECH, SANCO</p> <p>safety valve, vacuum breaker, pressure gauge, pressure switch. Specification:</p> <p>Depth-550 mm, diameter-350 mm.</p> <p>Lid, basket, inside and outside made of stainless steel-304.</p> <p>Water level arrangement</p> <p>Radial locking system(chrome plated) and paddle lifting.</p> <p>Fitted with Microprocessor based temp. controller, automatic purging of cold air, sterilising hold time and cycle end with automatic exhaust of pressure, all steps are user settable.</p> <p>Fitted with low water level arrangement, solenoid valves switch,</p>	1.
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6	<p><u>BOD Incubator with 3 step voltage stabilizer</u> Make: LABTECH, METREX, NSW. <u>Specifications:</u> Dimensions: Inner -650x580x900 (WxDxHmm). Material: Interior- Stainless Steel (SUS 304). Exterior- Epoxy powder coated steel.</p> <p>Door: Inner- Tempered safety glass. Outer- Silicon packing magnetic door.</p> <p>Compressor: ISI Marked CFC Free, ½ HP. Chamber with shelf supports, allowing wide range of shelf positions and spacing. Supplied with (3 Nos.) removable perforated Stainless Steel shelves. Door operated illumination lamp, with two fluorescent tubes (20W). UV tube- One (40W). Cabinet mounted on Castor wheels, for ease of movement. Temp. : Range - 5- 60°C, Accuracy±0.1°C, Uniformity- ±0.5°C, Microprocessor temp.-controller-cum-indicator. Display- LED 4 digit display. Air circulating system is provided with 2 Nos. F.H. Motor with fan which keeps uniform temp. throughout the chamber. Heating with sheathed heaters.. Safety: Over and under temp. cut-off, over current breaker. Electric supply: 220 V, 50/60 Hz.</p>	1
7.	<p><u>VERTICAL GEL ELECTROPHORESIS SYSTEM WITH SEMI-DRY WESTERN BLOTTING SYSTEM AND UNIVERSAL POWER PACK</u></p> <p>MAKE: BOI-RAD, HOEFER, GE HEALTHCARE, PEQLAB</p> <p>Vertical system: 10- well, 1.0mm thickness:4-gel system include 5 combs, 5 sets of glass plates, 2 casting stand, 4 casting frames, sample loading guide, electrode assembly, companion running module, tank, lid with power cables, mini cell buffer, dam.</p> <p>Approx. Gel Size : 10x10cm Minimum Sample Capacity: Max. 12 Buffer Volume: 250ml- 1000ml Complete system with internal cooling core</p>	1.

Semi Dry Western Blotting system compatible with universal power pack

Along with western blotting, system should be compatible for transfer of DNA and RNA using unique agrose gel semi-dry blotting support frame.

Capacity to transfer multiple gels.

Single step locking system.

Platinum coated titanium anode, stainless steel cathode plate.

Design that renders extra plastic templates requirement.

Safety cover to break the electrical current when lifted, preventing electrical shock.

Minimum Transfer Surface: 10x10cm

Buffer Volume: approx. 50- 200ml

Horizontal Electrophoresis

Gel Size : 7x8cm

Sample Capacity: Minimum capacity-12

Buffer Volume: 400ml

The Electrophoresis System Includes:

Buffer Chamber with Platinum Electrodes

Super safe Lid with attached lead gasketed

UV Transmissible (UVT) Gel Tray

2 Combs: 1.5mm thickness (6,10 teeth)

8.	<p><u>Stereo zoom Microscope Trinocular with photographic attachment</u></p> <p>Make- OLYMPUS,LABOMED, NIKON</p> <p>Specifications: Optical system - Infinity parallel zoom Eyepiece- wide field infinity plan achromate Objective – Distortion free infinity plan achromate Stage plate – Transparent- 100mm. Illumination-Transmission and reflection LED 100 V-240V. Working Distance- 25-100 mm Total Magnification- 20 X- 180 X. With 5 Mega pixel Photographic attachment(with carlziess lenses)</p>	1.
9.	<p><u>2.5 LITER BENCHTOP LYOPHILIZER /FREEZE DRYER SYSTEMS</u></p> <p>Make: LABCONCO, THERMO SCIENTIFIC, FISCHER SCIENTIFIC</p> <p>Specifications:</p> <ul style="list-style-type: none"> • Stainless steel collector coil capable of removing 2 liters of water in 24 hours and holding 2.5 liters of ice before defrosting. • 1/4 hp CFC-free refrigeration system to cool collector to -50° C (-58° F). <ul style="list-style-type: none"> ❖ Brushed stainless steel and glacier white, epoxy-coated steel exterior . ❖ LCD that displays system operating parameters, set-up parameters and alarm messages. It may be user-configured to display vacuum in mBar, Pa or Torr and temperature in ° F or ° C. It also displays total number of hours of refrigeration system operation and time since the refrigeration system was serviced and the total number of hours of vacuum pump operation and time since the vacuum pump was serviced (in hours). ❖ Alarm light that flashes and beeper that sounds to indicate that an abnormal system event has occurred, including: power failure, improper line voltage supply, collector temperature rise above - 40° C, service2 vacuum pump (after 1000 hours of vacuum use), 	1.

and moisture in collector. Pressing the Menu Switch displays the alarm message on the LCD.

- LED vacuum and temperature “waves” for at-a-glance display of relative system vacuum and collector temperature.
 - ❖ Moisture sensor that prevents refrigeration or vacuum start-up when moisture is detected in the collector chamber area.
- Vacuum control valve that maintains set point vacuum level.
 - ❖ Vacuum break valve that bleeds air into the system when power to the freeze dryer or vacuum pump is shut off. If a power outage less than approximately 5 minutes occurs, the freeze dryer will restart and the refrigeration and vacuum system will resume operation once power is restored. If the power failure is more than approximately 5 minutes and the collector warms above safe limits, the freeze dryer will not automatically restart.
- Port to transmit data to a user-supplied computer. Transmission intervals may be user- configured for 10, 30, 60, 300 or 600 seconds.
- Automatic start-up switch for collector cool-down and vacuum pull-down with manual override switches.
- Retractable collector drain hose.
- Clear acrylic lid, 3/4" thick, with 3" diameter port for connection of drying accessories
- Side-mounted power switch and rear-mounted electrical receptacle (for vacuum pump connection).
- 3/4" OD vacuum connection, three feet of 3/4" ID vacuum hose and two clamps.
- Vacuum pump with a displacement of at least 86- 108 liters per minute, 0.002 mBar ultimate pressure and fitting suitable for 3/4" ID vacuum hose.

10. **Hybridization Oven**

Make- THERMO, PEQLAB/ SIGMA , HOEFER,
Specifications:

Temperature range: 5 °C above ambient up to 80 °C, microprocessor controlled

Temperature resolution: ± 0.1

Temperature Uniformity: ± 0.5 °C

Rotation: 2-15rpm

Capacity: Minimum 6 nos. of hybridization bottles (60 x 200 mm approx. diameter and length)

Material : interior -stainless steel .Exterior -coated steel

Power Supply: 230 V/110 V AC, 50/60 Hz

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11.	<p><u>pH-Meter</u> Make :Mettler Toledo,Thermo Scientific,Sertorius,JenWay Quantity:1 Ranges : -2.00 to +16.00 Resolution:<0.01 Relative Accuracy ± 0.002 Automatic buffer recognition : 4.01, 7.00, 10.01 Calibration points:1, 2 or 3 Custom Buffers Accepted: Yes Millivolts Range: ± 1999.9 Resolution: 0.1 mV Relative accuracy: ± 0.2 or 0.05 % of reading , whichever is greater Temperature Range -10 to 105°C Resolution : 0.1°C up to 99.9 °C,1.0 over 99.9 °C Relative Accuracy : $\pm 0.1^\circ\text{C}$ ATC Range: 0 to 100 °C No. of Extra Electrode required: 2 Buffer (Merck) -4,7 & 10 Ph.</p>	1.
12.	<p><u>ORBITAL SHAKING INCUBATOR WITH VOLTAGE STABILIZER:-</u> Make: NSW, Metrex, Labtech Temp. Range: 5°C to 60°C. Temp. Control: Microprocessor Controlled. Temp. Accuracy: $\pm 0.1^\circ\text{C}$ to 0.5°C. Shaking Speed :Variable Microprocessor Controlled. Speed Range : 0 to 300 rpm. ± 1rpm. Orbital Diameter not more than: 20 mm. Platform size:510×510mm. Shaking Tray – Universal platform to accommodate interchangeable clamps of assorted sizes for different capacity of conical flasks of 1000 ml, 500 ml, 250 ml,100 ml. Platform Capacity- 16 Flasks ×500ml. /25 Flasks× 250ml. /9 Flasks × 1000 ml.</p>	1

13.	<p>No. of clamps required : 250 ml.=25.</p> <p>Illumination : one-fluorescent tube (20W).</p> <p>Construction : Double walls, the exterior- Epoxy powder coated steel and Interior of Stainless Steel (SUS 304).</p> <p>The inner door made up of- plexiglass, outer Door is made of Toughened Glass window in Frame with lock and Key.</p> <p>Air circulating fan for maintaining uniform temp.</p> <p>CFC Free (KIRLOSKER) compressor (I.S.I. marked).</p> <p><u>Driver:</u> Triple Eccentric Counter balanced drive with permanently lubricated ball bearing.</p> <p><u>Drive Moter:</u>Maintenance free Brushless Induction Drive Motor.</p> <p><u>Automatic Restart:</u> Automatic restart at pre-set speed in case of Power Failure.</p> <p><u>Safety:</u> Auto cut off in case of overshoot of temp., short circuit protection by MCB/Overload Glass Fuse.</p> <p>Power Supply- 220 volts, 50hz, AC single phase supply.</p> <p><u>Digital Electronics balance</u></p> <p>Make-Mettler Toledo, Shimadzu, Sartorius</p> <p>Specification: 42/120gm, Readability / Sensitivity: 0.1mg.</p> <p>Repeatability:0.02 mg.</p> <p>Linearity:0.15mg.</p> <p>Pan Size: 80mm.</p> <p>Calibration: Internal</p>	1.
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14.	<p><u>DEMOUNTABLE QUARTZ DOUBLE DISTILATION UNIT</u></p> <p>Output Capacity : 2.5 litres</p> <p>Power Required : 220-240 V</p> <p>Biological Purity : Pyrogen free</p> <p>pH : 6.9-7.0</p> <p>EC :0.5-0.9×10⁻⁶</p> <p>Temperature:75±5°C</p> <p>Water softener</p> <p>Solenoid Valve</p> <p>MCB</p> <p>Electrical dual auto-cut off.</p>	1.
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TERMS AND CONDITIONS GOVERNING THE TENDERS FOR THE SUPPLY

1. Every tender shall be accompanied by the earnest equal to 2% of the involved value. The earnest money should be deposited through Bank Draft in favour of the Finance Officer, M.D.University, Rohtak, payable at the State Bank of India, Maharshi Dayanand University, Rohtak.
2. The tender received without earnest money or after the due date shall not be entertained except with the special approval of the competent authorities.
3. The supplies shall be executed within the time specified in the supply order which may be extended by the Registrar on other application of the supplier explaining reasons/circumstances due to which time limit could not be adhered to. In the event of the supplier failing to supply the material within time, he shall be liable to pay as compensation an amount equal to one percent or such small amount as the Registrar may decide on the said amount of the contract, for every day that the quantity remains incomplete, provided that the entire amount of compensation shall not exceed 10 percent of the total amount of the contract. An appeal against these orders shall however lie with the Vice Chancellor whose decision shall be final.
4. In case the contractor backs out of his contract, the earnest money deposited by him shall be forfeited besides any other action as may be considered necessary by the Vice-Chancellor.
5. All the charges including packing, forwarding and installation, taxes and other levies should be specified in the tender. The charges etc. not specified in the tender shall not be paid.
6. The quantity of material/supplies shall be subject to increase or decrease on the tendered rates. This increase or decrease shall be communicated by the University within 230 days of acceptance of the tender.
7. Supplies shall be made as per the schedule and within such time as is indicated in the supply order.

8. 100% payment will be made on receipt and inspection of goods to ensure the specifications and their good condition.
9. The rates accepted by the University shall be applicable up to 31.3.2013 and the supplier shall have to make supply during the period as and when required.
10. **The tenders shall be opened in the office of H.O.D. Environmental Sciences on 19-12-2012 at 11.30 a.m. by the Purchase Committee in the presence of contractor/supplier and the Committee reserves the right for negotiation thereafter if considered necessary.**
11. The Registrar reserved the right to reject or accept any offer without assigning any reasons.
12. All disputes subject to **Rohtak jurisdiction.**
13. Guarantee/warrantee of items must be mentioned.
14. **The University stands exempted from the payment of Central Excise Duty/Custom Duty. The rates be quoted keeping that fact in view, Necessary certificate will be provided by the University.**
15. No tender documents will be issued and rates are to be officered on company's letter pad.
16. If a holiday occurs on the opening day, the tenders will be opened on the next working day.
17. The tenders received not in proper sealed cover shall not be considered and will be liable for rejection in a straightway.
18. Rates for each item are to be quoted in a separate letter head and are to be sent in a separate cover.

Registrar