TERMS AND CONDITIONS FOR THE PURCHASE OF EQUIPMENT IN VARIOUS SCHOOL OF STUDIES/ CENTRES OF JIWAJI UNIVERSITY, GWALIOR

Sealed Tenders are invited for the supply of materials as mentioned in the enclosed list. Tenders will be considered subject to following the terms and conditions.

1) All tenders must be accompanied by a Bank draft drawn in favour of Registrar, Jiwaji University, Gwalior for an amount mentioned in the attached sheet as earnest money. Tenders received without earnest money will be liable to be rejected and may not be considered.

2) Tenderers can obtain tender document against payment of Rs.200 by demand draft in favour of the Registrar, Jiwaji University, Gwalior on or before 30.7.09 on any working day between 11 AM to 5.30 PM. Either by post or courier or in person.

3) The last date for submitting the Tender is 30.7.09 before 5:30 pm. at the office of the Registrar, Jiwaji University, Gwalior.

4) The tenderer should agree to furnish a Bank Guarantee from Nationalized Bank up to 10% of the cost of the equipment during the Warranty Period and extendable to at least five years or as may be desired by the University so as to ensure proper maintenance and satisfactory working of the equipment.

5) The tenderer should agree to execute an agreement for proper supply, installation and satisfactory working of the equipment exactly to the specifications mentioned.

6) The rates should be quoted in the units given in the enquiry and should be for supply for CIF/CIP Gwalior. The prices should be inclusive of sales tax and other charges. However, the exact details of taxes should be given separately.

7) Being an Educational Institution it is entitled to issue Concessional sales tax certificate. No other sales tax form is issued. If concessional sales tax certificate is not acceptable to the supplier, the actual rate of sales tax to be charged must be clearly mentioned.

8) This institution is exempted from payment of Central Excise duty in terms of Govt. Notification No. 10/97 – Central Excise Dated 01/03/1997. necessary certificate copy to be provided by the University.

9) For Imported equipment the price should be without any custom duty. The institution is registered with Department of Science and Industrial Research (DSIR) Govt. of India vide Government Notification No. 51/96 Customs dated 23-7-96 is exempted from payment of Custom duty; necessary Certificate copy to be provided by the University. (Reg. No.: TU/ V/ RG-CDE(56)/ 2005 Dated 27 Jan 2006)

10) If the rates are quoted Ex- Godown or F.O.R. Railway Station of dispatch, then the tenders must also indicate charges towards packing & forwarding, Railway freight etc. so as to compare these rates with those of others who have quoted FOR destination failing which such offer will be ignored.

11) Manufacturer’s name, their trademark and brand should invariably be mentioned in the tender and illustrated leaflets giving technical particulars/ details etc. should be attached with the quotation to facilitate consideration of the offer.

12) The tender should quote their best willing price which should be firm for the period of 90 days from the due date of tender.

13) The minimum period of delivery of the material should be quoted. Ready stock offers will get preference.

14) The quantities of each item to be purchased may vary according to actual requirement at the time of placing order.
15) If there is any DGS & D rate contract of Government approved rates the same should be quoted enclosing the copy of the Rate Contract, which will get preference. No earnest money will be required for the purchase made on DGS &D rates.

16) The tender should avoid the use of vague terms such as ‘extra as applicable’.

17) Printed condition on the back of the offer submitted will not be binding unless separately mentioned.

18) Quotation for each item (as per serial number in the specification sheet) along with terms and conditions must be submitted separately in separate cover so that for individual item separate comparative statements could be prepared. This is very important.

19) Advance payment either direct or through bank will not be accepted in any case. As per rule, full payment will be made after receipt of material, inspection thereof and after satisfactory working of the entire equipment.

20) The successful tenderer if so required by the institute, shall place a Security Deposit in cash or furnish Bank Guarantee from the Nationalised Bank up to 10% of the total value of the order which is refundable after satisfactory execution of order within the stipulated delivery period. The penalty of half percent per week shall be imposed by the institute, subject to a maximum of 10%, for late delivery of the material. No interest will be paid on the Security Deposit or Earnest Money.

21) The tenderer should clearly state regarding charges for installation, maintenance, etc. of the equipment, if any.

22) Offers received not according to our terms and conditions and within the time prescribed shall be rejected. Delay due to postal services of any kind will not be considered for acceptance of the tender.

23) In all matters of dispute, the decision of the Registrars, Jiwaji University, Gwalior shall be final & binding on the tenderers.

24) The address of local office at Gwalior for maintenance along with the list of well-reputed organizations that have purchased the same equipment should be provided.

25) List of spare parts must be supplied.

26) The test reports of the equipment quoted from reputed government organizations/academic institutions must be submitted along with the offer.

27) In case of an authorized dealer, Certificate from Manufacturers must be attached as proof.

28) In case of imported equipment, L/C of 90% of the total cost shall only be paid. Rest of the amount will be paid only after installation and demonstration of its satisfactory working by authorized engineer/technical person.

29) Date and time of opening of envelopes is 30/06/2009 in the presence of intending tenderers or their representative who may like to be present in the office of the Registrar, Jiwaji University, Gwalior.

30) If any of the dates of receipt/opening of Tender happen to be declared as holiday, the schedule will be shifted to the next working days automatically.

31) The Tender envelope should contain two envelopes, “First” superscribed as Technical Bid for (the items). This should contain the specifications of the equipment and terms & conditions of supply. The Earnest money DD should be sealed in separate envelope. The second envelop should be super scribed as Commercial Bid for (the item). This should contain the competitive price of the equipment. The above two envelopes should be placed in one envelop and
should be superscribed as Serial No. ......... vide No. ......... to be opened on 3rd Aug. 09. Only those who fulfill the technical specifications shall be considered for opening the commercial bid.

32) Separate tenders are to be submitted for each item.

33) Tenders should reach only by Speed Post or Registered Post. Telegraphic, Fax and conditional tenders shall not be accepted.

34) Any item or offer may increase in number or even may not be purchased. The Registrar, Jiwaji University, Gwalior, reserves the right to accept or reject any or all tenders without assigning any reasons thereof.

35) Any item or offer may increase in number or even might not be purchased without assigning any reason. The Registrar, Jiwaji University, Gwalior, reserves the right to accept or reject any or all tender without assigning any reason thereof.

Important Note:

- Tenders along with terms and conditions must be submitted in duplicate separately in separate covers (with Earnest Money through DD) so that for individual items, separate comparative statements can be prepared.

- Tender must be accompanied by technical bid, Earnest money and Commercial bid in separate envelopes. All these three must then be kept in one big envelope.

- Canvassing for support in any form for the acceptance of any tender is strictly prohibited. Any tenderer doing so will tender himself liable to penalties which may include removing of his name from the register of approved Suppliers.
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Instruments</th>
<th>Earnest Money in Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Lase Therapy-Dia pulse</td>
<td>90,000/-</td>
</tr>
<tr>
<td>2.</td>
<td>UV-Excited Spectrofluorometer</td>
<td>24,000/-</td>
</tr>
<tr>
<td>3.</td>
<td>Elisa Reader Binocular Microscope</td>
<td>24,000/-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9,000/-</td>
</tr>
<tr>
<td>4.</td>
<td>Advanced PCR Gel-Electrophoresis</td>
<td>24,000/-</td>
</tr>
<tr>
<td>5.</td>
<td>Element Analyzer</td>
<td>45,000/-</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Real Time(PCR) Thermocycler</td>
<td>60,000/-</td>
</tr>
<tr>
<td>8.</td>
<td>Communication system device</td>
<td>5000/-</td>
</tr>
<tr>
<td>9.</td>
<td>Rockwave Software</td>
<td>10,000/-</td>
</tr>
<tr>
<td>10.</td>
<td>BOD Incubaler UV-Vis Spectrophotometer Refrigerated Centrifuse</td>
<td>24,000/-</td>
</tr>
</tbody>
</table>
**Laser Therapy**

Unit for laser therapy, pulsed, infrared gallium arsenide, wave length 904 nm.

With
- 2 mono probes with 1 diode, 16 W or 25 W.
- 1 Cluster probe with 4 diodes, 4 x 18 W.
- Mains Voltage: 110-240 V (+/-10%), 50-60 Hz.
- Dimensions (W x d x h): ca. 41 x 28 x 13 cm.
- Weight: ca. 6 kg.
- Insulation class: 1 type B-IEC 601

**Supplied with the following accessories:**
- 100.689* Mains Lead, straight, Europe (1)
- 114.890 Laser Protection Glasses (2)
- 114.469 Indication charts 740-EN (1)

116.226 : Remote interlock laser unit, for Phyaction 740
114.693 : Potential equalisation cable, 2 m.
113.054 : Trolley, practical stable trolley with storage section for cables, 2 shelves, 1 drawer.
113.056 : Extra Shelf for trolley.
113.055 : Extra drawer for trolley.

102.805 Thermatur m 250

Microwave therapy, continuous and pulsed

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(Prof. Rajender Singh)
H.O.D.
S.O.S. in Physical Education
TECHNICAL SPECIFICATIONS FOR ELISA READER AND MICROPALTE WASHER

1. ELISA READER
Specifications
Wavelength range 400–750 nm or wider
Photometric Single or dual wavelength
Photometric range 0.0–3.5 OD
Bandwidth 10 nm
Linearity ≤1.0% from 0.0–2.0 OD; ≤2.0% from 0.0–3.0 OD
Accuracy ± 1.0% or 0.010 from 0.000–3.000 OD at 490 nm
Reproducibility 1.0% or 0.005 OD from 0.0–2.0 OD; 1.5% from 2.0–3.0 OD
Resolution 0.001 OD
Light source Tungsten halogen lamp (20 W), 3,000 hr average lifetime
Photo detectors Silicon photodiodes: 8 measurement, 1 reference
Filters 8-position filter wheel
Read time Fast mode: 6 sec at single wavelength (onboard software), 10 sec at
dual wavelength
Step mode: 15 sec at single wavelength, 25 sec at dual wavelength
Plate shaking 3 speeds: low, mid, high; duration: 0–999 sec
Plate types 96-well micro plate; maximum plate height: 16 mm
Warm-up time 3 min
Inter channel variation ≤1.0% or 0.005 from 0–3.0 OD
Stability and drift (at 490 nm) ≤0.010 OD at OD = 1 at 490 nm single wavelength
Data output Onboard graphical thermal printer and USB2 interface with PC or Mac
data stations
Data storage Calendar/clock function; 64 assay protocols
Multilanguage support 4 language ROM capacity; LCD indication supported; printout report
supported

2. MICROPLATE MANAGER SOFTWARE SPECIFICATIONS
• Customized plate formatting with up to 12 different user-friendly assay types per plate
• Flexible kinetic analysis to calculate velocity, choose the number of points for $V_{max}$ calculation,
display correlation coefficient, calculate positive or negative slopes, set absorbance limits, zoom in
on an individual well, and view real-time data acquisition
• Definition of custom labels for reports
• Monitoring of a well for an absorbance change before reading the plate
• Easy import or export of data to other programs, to diskette, or from previous Microplate Manager
versions
• Linear regression, quadratic, cubic, and logistic (4 parameter) curve-fit types
• External standard curves for multiple-plate analysis
• Overlay of curve fits for comparison
• Automatic setting of dilution factors
• Full matrix, limit, and normalization screening reports
• Ability to define custom transformations to apply to individual wells

Software System Requirements
Minimum PC requirements include a Pentium 166 computer, 64 MB RAM, 240+ MB hard drive, 256-color
monitor, and serial port. Microplate Manager PC software is compatible with Windows 95, 98, Me, NT,
2000, and XP operating systems.

Dr. O.P. Agrawal
Professor & Head
School of Studies in Zoology
Sway University, Gwalior 454001, M.P.
3. MICROPLATE WASHER SPECIFICATIONS

Microplate Washer should include bottle and tubing set, port manifold, aerosol protection cover.

1. Microplate Washer should be compact programmable 8-channel manifold microplate washer / aspirator, with built-in vacuum and dispensing pumps designed for use with 96 well plate and strip plates, with flat bottom, U, V-shaped wells.

2. It should have aerosol protection of the working area; the removable plate carrier is autoclavable for easy disinfection. The system should be programmable, with a large choice of washing methods. It should have a wide choice of wash sequences to facilitate protocol creation and storage, and is Compatible with 96-well microplates that have flat-, U-, or V-bottom wells and strips.

3. It should have accuracy of 0.1mm for bottom washing, crosswise aspiration, and overflow washing.

4. The washer should have plate-shaking option to help minimize bubbles and adherence of liquid to well sides.

5. The washer has waste bottle sensor to detect high waste liquid levels.

6. The Washer should have programmable washing sequences for customized protocols.

7. It should have integrated vacuum and dispensing pumps to ensure accurate and quiet washing and to eliminate the need for external pumps.

4. ONLINE UPS 3KVA

5. Warranty/Guarantee: Min. 2 Years

[Signature]

Dr. O.P. Agrawal
Professor & Head
School of Studies in Zoology
Jiwaji University, Gwalior-474011 (M.P.)
TECHNICAL SPECIFICATION FOR TRINOCULAR STEREOZOOM WITH TRANSMITTED AND REFLECTED LIGHT AND DIGITAL CAMERA

1. Stereo-Zoom 0.63 X - 4.0 X
2. Zoom Range 6.3:1, (magnification range 6.3X - 40X/eye piece 10X), 110 mm working distance, integrated binocular tube, viewing angle 38 degree, inter pupillary distance 55 to 75 mm, housing antistatic.
3. ESD material
4. Eye piece 10X/23 with built in graticule
5. Base for transparent specimens
6. Cold Light source 8 V/20 W, 3200 degree Kelvin, for fibre light guides, 3-step intensity control
7. Universal light guide with built in focusing lens
8. Video/photo objective 1.0X for video / phototubes, suitable for eyepiece tubes or C-mount adapter
9. High resolution camera with 3mm pixel. Powerful camera control including shading correction and optional predefined illumination settings creating high quality images for use in power-point presentation, lab reports and course related materials. Images can be posted on web site or internet for easy sharing.
10. A PC for image acquisition and imaging.
11. Online 2KVA UPS
12. Extra 8V/20W lamps (2)
13. Dust cover for stand and camera attachment
14. Guarantee/warranty (min 2 years)
School of Studies in Physics, Jiwaji University, Gwalior

Technical specifications of Photoluminescence setup (Spectrofluorometer)

The instrument should be suitable for photoluminescence experiments on solids, thin films and liquids. The specification of the instrument/setup should be preferably as given below or better:

**Specifications:**

<table>
<thead>
<tr>
<th><strong>Optics</strong></th>
<th>All reflective for focusing at all wavelengths and precise imaging for microsamples.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Source</strong></td>
<td>Xenon lamp or other suitable lamp.</td>
</tr>
<tr>
<td><strong>Spectrometer</strong></td>
<td>Plane-grating Czery-Turner design or any other suitable design.</td>
</tr>
<tr>
<td><strong>Excitation</strong></td>
<td>200-950 nm</td>
</tr>
<tr>
<td><strong>Emission</strong></td>
<td>200-950 nm</td>
</tr>
<tr>
<td><strong>Bandpass</strong></td>
<td>0-30 nm</td>
</tr>
<tr>
<td><strong>Wavelength accuracy</strong></td>
<td>±0.5 nm</td>
</tr>
<tr>
<td><strong>Scan speed</strong></td>
<td>80 nm/sec</td>
</tr>
<tr>
<td><strong>Integration time</strong></td>
<td>1 ms-160 sec</td>
</tr>
<tr>
<td><strong>Emission detector</strong></td>
<td>pmt range 200-850 nm</td>
</tr>
<tr>
<td><strong>Reference detector</strong></td>
<td>Photodiode selected for stability</td>
</tr>
<tr>
<td><strong>Water Raman Signal</strong></td>
<td>400,000 counts/sec min.</td>
</tr>
<tr>
<td><strong>Signal to noise ratio</strong></td>
<td>3000:1</td>
</tr>
</tbody>
</table>

Relevant software should be included.
Should have option for upgrading for fluorescence life time measurements.
SCHOOL OF STUDIES IN ANCIENT INDIAN HISTORY, CULTURE & ARCHAEOLOGY
JIWAJI UNIVERSITY, GWALIOR

List of Equipments

1. Communication System:
   (a) (AHUJA) Power Amplifier 350w. – 01
   (b) (AHUJA) Moulded Cabinet Speakers 200w. – 02
   (c) (Studiomaster) Cordless microphone EL II / ER II – 03
   (d) (AHUJA) Gooseneck microphone GM 6 series – 02
   (e) (AHUJA) PA microphone professional SHM 1000 – 03
   (f) (AHUJA) PA microphone AUD 99 XLR – 04
   (g) Speakers Stand – 02
   (h) Microphone Stand – 04
   (i) Borton Speakers wire – 100m
   (j) Laptop core 2 duo with Web Camera - 01

Head
EQUIPMENTS FOR SOS EARTH SCIENCE

Equipments (More than Rs. 1 Lakh)

1. **Rock Ware Software**

   RockWorks14: BUNDLE RockWorks14 / ArcView package
   RockWorks14: BUNDLE RockWorks14 / RockWare GIS Link v2 package - std. single user

EQUIPMENTS FOR SOS EARTH SCIENCE

Equipments (Less than Rs. 1 Lakh)

1. **Specialised Digital Camera (SONY/ OLYMPUS/ NIKON/ CANON)**

   10/12/14.7 Megapixel, 3x/5x/20x/24x Optical Zoom, 3.0" LCD along with standard accessories

2. **Digital Handycam**

   High Definition video to a built-in 80GB hard disk drive. With Face Detection and Smile Shutter technology, Optical SteadyShot and 2.7 (6.9 cm) touch panel LCD

3. **Hand Held GPS**

   Way points 500, Track points 1024, 4 Grey level, Compass Barometer) PC Interface cable with compatible software and accessories
SPECIFICATIONS OF C, H, N, S & O ELEMENTAL ANALYSER

1) It should be based on the principle of dynamic Flash combustion (Modified Dumas Method), followed by Gas Chromatographic. Column (GC) Separation & Thermal Conductivity Detection (TCD) of all five elements C, H, N, S & O in various field upgradeable mode as CHNS/O, CHNS, CHN; CNS, CN, S & O only sub ppm level (100ppm).

2) Instrument should use He as carrier and O₂ as combustion gas

3) The flow of both gases should be controlled by an Electronic Flow meter which is Thermoregulated (ie. EFC)

4) Analyser should be controlled only through independent PC using Window based operating software and should not have direct control in the Instrument.

5) The Instrument should have Mimic screen indication the status of the Parameters like Furnace, Flow etc.

6) Furnace / Combustion Temperature:
   a. CHNS-1000°C and around 1800°C during combustion of sample
   b. O₂ - Pyrolysis - 1060°C

7) The Analyser should have the facility of viewing the flash of combustion of the sample.

8) Software should be capable of full instrument control, data acquisition, processing, reprocessing, reporting with the following features
   - should be compatible with Windows™ 2000, XP and Vista operating systems
   - Flash EA Methods (CHNS, CHN etc) preset
   - Oxy Tune Function (oxygen dosing system by Electronic Flow Controller Thermoregulated)
   - User compound library
   - Automatic Heat Value Calculation (i.e. GHV and NHV) for solid and liquid fuels
   - Automatic Minimum Formula Calculation (for fine chemicals and synthetic products)
   - Maintenance control program
   - Wake up, start up and shut off functions
   - LIMS compatibility
   - LAN Compatibility
   - Data Export/Import – ASCII Report file
   - Data Export/Import – Excel summary Result file
   - Automatic Leak Test
   - "Green Light / Red Light": a green or red light shows at glance if the data obtained are within the acceptable range.
   - Automatic Evaluation of the Empirical Formula:
   - 21CFR part 11 compliant

9) Detector range (for C, H, N, S, O): 0.01 % to 100%

10) Sample size: 0.01 – 100 mg (according to the sample nature)

11) Sample Feeding:
   a. "Built in Auto sampler for solids & liquids with minimum 32 samples in a single tray, of solid or liquids (supported on a proper solid inert material) placed in tin containers.
   b. Additional sample trays should be available to extend the autosampler’s capacity up to 125 samples.
   c. The Autosampler should be fully motorized and should not require servo air as utility.
Real Time PCR System

Specifications:

- Compact, latest, high throughput and fast on line Real Time PCR system for Gene expression and Quantification assays.
- Should be 96 well real time PCR with option to upgrade into higher version.
- Excitation source should be Tungsten Halogen/Xenon/Laser/LED with at least 5 colour detection filters for multiplexing capabilities.
- Should be flexible and open system for all available chemistries including SYBR Green, Taqman/ Hydrolysis probe, Hybridization Probes and others.
- Detection should be through CCD/ cooled CCD Camera only.
- Should come with all the software related to Real Time PCR Application along with specific software for Primer/probe designing and all other accessories including computer (Pentium 4, minimum 800 MHz/ minimum 512 MB RAM), colour printer and online UPS.
- Starter kit and reagents for at least 1000 reactions should be provided with the instrument.
- System should be an open system to accommodate consumables and reagents from different vendors with documented proof such as user guide.
- System should be operative at 220V / 50 Hz.
- Only licensed PCR should be quoted (copy of PCR license should be enclosed)
- 3 Years on-site comprehensive warranty should be provided free of cost with all software updates and upgrades.
- The vendor should have a fully functional Application laboratory to support and troubleshoot problems if any in India.
- The compliance statement of specifications offered by the quoted model vis-à-vis tender specifications must be submitted with the deviations clearly marked and mentioned towards its non-compliance. This statement must be signed, with the company seal, by the Tenderer for its authenticity and acceptance that incorrect or ambiguous information found submitted will result in disqualification of the Tender.
UV-VIS Spectrophotometer

Specifications:

- Measuring Modes: Concentration, Absorbance/% Transmittance, along with wavelength scan, time scan, multiwavelength determination and meet different measurement requirements
- Wavelength Range: 190 – 1100 nm
- Lamp Source: Xenon lamp
- Measuring Principle: Double Beam Spectrophotometer
- Monochromator Type: Grating monochromator
- Wavelength calibration: Automatic
- Wavelength Accuracy: 2 nm or less
- Wavelength Reproducibility: 0.5 nm or less
- Resolution: 1 nm
- Spectral Bandwidth: 4 nm or less
- Stray Light: 0.3%T or less
- Detector: Photodiode
- Linearity: 1% or less for A <2.000 in the range of 340 to 900 nm
- Accuracy: 0.004A for A <0.600
- Reproducibility: ±0.003 at A = 1.000
- Base Line Stability: ±0.004 A/h at 500 nm
- Base Line Flatness: ±0.002 A/h at 500 nm
- Display: Backlit LCD Display with USB port connectivity that may be connected with a printer
- The machine should be supplied with Glass cells (16) and Quartz cells (4)
- 3 Years on-site comprehensive warranty should be provided free of cost with all software updates and upgrades.
- The compliance statement of specifications offered by the quoted model vis-à-vis tender specifications must be submitted with the deviations clearly marked and mentioned towards its non-compliance. This statement must be signed, with the company seal, by the Tenderer for its authenticity and acceptance that incorrect or ambiguous information found submitted will result in disqualification of the Tender.

S. Pratap
25.06.09

DIRECTOR

INDIRA GANDHI ACADEMY OF ENVIRONMENTAL EDUCATION, RESEARCH & ECOPLAGNUN
JIWANI UNIVERSITY, GWALIOR - 474011
High Speed Refrigerated Centrifuge

Specifications:

- Table Top, Multipurpose, High Speed, Refrigerated and Microprocessor Controlled Centrifuge machine for routine work in research laboratory
- Maximum RCF: 25,000 Xg or more
- With Fixed Angle rotors - Maximum RCF: 24,000 Xg or more
- With Swing out rotors - Maximum RCF: 4,500 Xg or more
- High quality, durable and safe angle head and swing out rotors along with adapters for accommodating centrifuge and microfuge tubes of different capacities
- The machine should be supplied with appropriate: voltage stabilizer
- Glass cells (16) and Quartz cells (4)
- 3 Years on-site comprehensive warranty should be provided free of cost.
- The compliance statement of specifications offered by the quoted model vis-à-vis tender specifications must be submitted with the deviations clearly marked and mentioned towards its non-compliance. This statement must be signed, with the company seal, by the Tenderer for its authenticity and acceptance that incorrect or ambiguous information found submitted will result in disqualification of the Tender.
BOD Incubator

Specifications:

- Microprocessor Controlled Chambers with soft touch keyboards for various applications
- Capacity: 450 Litres
- No. of selves: 3
- Temperature range and accuracy: 10°C to 60°C ±1°C
- Humidity range and accuracy: 40% to 95% ± 3%
- Humidity control through PC and for multiple networking of chambers
- Chamber illumination with fluorescent and UV lights
- Cyclic timer for regulating illumination conditions
- Menu driven program memory
- Safety thermostat to prevent over heating
- Audio visual alarm warnings of Temperature and Relative Humidity variation and low water level
- Built in safety circuit, which cuts off system & stops unit in case of malfunction of microprocessor
- Capacitance type humidity sensor* for direct display of humidity in % RH
- Centronics interface for keeping hard copy of temperature, humidity, time and date
- High voltage safety cutoff for unit protection
- The machine should be supplied with appropriate voltage stabilizer
- 3 Years on-site comprehensive warranty should be provided free of cost.
- The compliance statement of specifications offered by the quoted model vis-à-vis tender specifications must be submitted with the deviations clearly marked and mentioned towards its non-compliance. This statement must be signed, with the company seal, by the Tenderer for its authenticity and acceptance that incorrect or ambiguous information found submitted will result in disqualification of the Tender.

[Signatures]

25.06.09
DIRECTOR
INDIRA GANDHI ACADEMY OF ENVIRONMENT EDUCATION, RESEARCH & ECOPLANNING JIWAJI UNIVERSITY, GWAJIR - 474011
Gradient Thermal Cycler with License

Specifications:-

• Compact, latest, high throughput and fast Gradient Thermal Cycler with License for Gene expression and Quantification assays.
• Should be 48/48 well Gradient Thermal Cycler and should be upgradable to Real time PCR – 6 channels
• Gradient Thermal Cycler with License
• Flexible Platform: 4 interchangeable reaction modules including one for real time PCR detection
• Temperature range: Highly uniform, 0 – 100 deg C
• Sample capacity: 96 x 0.2 ml tubes
• Maximum ramp rate: 5 deg C/s
• Temperature calculated mode: Calculated & Block
• Memory: >1000 typical programs on board, unlimited with USB flash drive expansion
• Gradient capability should be present
• Gradient Range: 30 -100 deg C
• Temperature difference range: 1 – 24 deg C
• Programming options: Step based graphical, text based, automatic
• Security feature: Pass word protected folders, optional logins & secured mode for highly regulated environment
• USB Peripheral compatibility: Mouse, USB flash drive, bar code reader
• Input Power: 400 W
• Frequency: 50 -60 Hz
• Color Display: 12 x 9 cm high resolution or more
• Port: 5 USB A & 1 USB B

3 Years on-site comprehensive warranty should be provided free of Cost with all software updates & upgrades.

• Only licensed PCR should be quoted ( copy of PCR license should be enclosed )
• Starter kit & reagents for at least 500 reactions should be provided with the instrument.
Electrophoresis with Power Supply

Specifications:-

1. Vertical Electrophoresis System:

- Maximum gel size (LxW) : 8 x 11 cm
- Gel Thickness : 0.75 mm
- Applicable number of Samples : 10 - 30
- Gel Capacity : 1 or 2 gels
- Minimum internal buffer volume : 250 ml
- Maximum internal buffer volume : 300 ml
- Minimum external buffer volume : 500 ml
- Maximum external buffer volume : 1400 ml
- Electrode module : 1 set for two gels
- Casting module : 2 sets
- Glass Plate Sets : 5 sets
- Selectable comb teeth : 10 & 15 teeth
- Comb thickness : 0.75 mm
- Operating Condition : Temperature: 0 - 600 deg C
- Humidity: 10% to 90%
- RH: Non condensing
- Warranty (on site comprehensive) : 3 years free of cost

2. Horizontal Electrophoresis System:

- Gel Size : 10 x 7 cm
- Tray slot number : 2
- Applicable samples numbers : 10-30
- Minimum buffer volume : 200 ml
- Maximum buffer volume : 270 ml
- Selectable comb teeth : 10 & 15
- Comb thickness : 1.0 mm
- Florescence ruler : Labeled on the gel tray
- UV transmittable : Whole unit including gel tray
- Coverlid and reservoir material : Acrylic Injection mold
- Warranty (on site comprehensive) : 3 years free of cost
- Operating Condition : Temperature: 0 - 40 deg C
- Humidity: 10% to 90%
- RH: Non-condensing

3. Power Supply:

- 230 V
- 50/60 Hz
- Out put range: 10 - 300 V
- 4 - 500 mA
- 90 W max
- With slots for running four gels simultaneously
- On site comprehensive warranty free of cost for 3 years