

उष्णकटिबंधीय वन अनुसंधान संस्थान

**TROPICAL FOREST RESEARCH INSTITUTE
Indian Council of Forestry Research & Education**

(An autonomous Council under the Ministry of Environment & Forests, Govt. of India)
P.O. – R.F.R.C., Mandla Road, Jabalpur – 482 021.

**TENDER FOR SCIENTIFIC
EQUIPMENTS**

Tender No.15- 1/46/2010-11/

Dated of the issue: / /2011

ENCLOSURES

1. Tender Notice
2. Tender Form
3. Specifications for Scientific Equipments
4. Conditions of Tendering for supply & Scientific equipments of material

Tender document S.No.....issued to M/s.....
.....
.....
.....

Cost of Tender documents Rs.....received in cash/vide D.D./ Bankers
Cheque No.....dated.....drawn
on

Signature and seal of the issuing Officer



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TENDER NOTICE FOR PROCUREMENT OF SCIENTIFIC EQUIPMENT

Advertisement No. 15-1 /46/10-11/TFRI/JBP.....

Sealed tenders are invited from reputed firms for the supply of

1. DIGITAL LECTURN WITH INTERACTION PANEL AND UPS
2. HOT AIR OVEN
3. LABORATORY OVEN
4. AUTOCLAVE VERTICAL
5. UV VISIBLE SPECTROPHOTOMETER
6. COMPUTER ITEMS
7. LABORATORY FUME HOOD CHAMBER
8. DIGITAL PLANT CANOPY IMAGER, SHAKING MACHINE, ELECTRICAL CONDUCTIVITY METER/TDS
9. GERMINATOR STABLIZER

Tender Fee : 150.00 (Non Refundable)
Cash/DD/Banker's Cheque Favour of
Director, Tropical Forest Research Institute,
Jabalpur

Issue of Tender starts from : 10 AM 20/01 /2011
Issue of Tender ends on : 1 PM 17 /02 /2011
Last date of submission of tender : 1.00PM 17 /02/2011
Opening of tender : 3.15PM 17 / 02 /2011

Note: Tender document is also available on our website <http://tfri.icfre.gov.in>

Director
Tropical Forest Research Institute Jabalpur

To,

The Director
Tropical Forest Research Institute
P.O. R.F.R.C., Mandla Road
Jabalpur

Sub: Tender for Scientific equipments

Ref: Your Advertisement Published In the Danik
Bhaskr/Hindustan Times on.....

The undersigned hereby tenders and offers (subject to Institute's conditions of tendering) to the Tropical Forest Research Institute, Jabalpur to supply the Scientific equipments as described in the enclosures with details of specifications in good condition.

It is certified that the specifications of Scientific equipments and all other conditions wherever described in the tender document, have been replied in full, giving clear details. The decision given by the institute in this regard will be final. It is also understood that the tenderer (in case of interpretation) will have no right to furnish any technical or commercial clarification after opening of the tender.

Date.....

Tenderer's signature with date

Name of the Tenderer

Address

SUBMIT THE FORM DULY FILLED IN SEALED COVER MENTIONING DATE OF OPENING OF THE TENDER

TENDER FORM

1. Name and full address of the tenderer with
telephone/fax number (if any)
.....

2. (a) If the tenderer is an authorized dealer of a
company give detailed information of authorization
(Dealer certificate should be enclosed)

- (b) Sales tax/Commercial tax Registration

- © If registered as Contractor/Supplier of specific
equipment with any Central/State Govt. department
give details

- (d) Income tax clearance certificate (copy to
be enclosed)

- (e) Whether registered with
(i) D.G.S. & D
(ii) Small Scale Industries Corporation
(iii) National Small Scale Industries Corp.,
Etc. If any, copy of the same should be
Submitted to claim exemption from EMD(

3. Validity Period (not less than 120 days)

4. Delivery Period to be specifically mentioned.

5. Whether Proprietary Item? If yes, enclose the certificate

YES	NO
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6. Details of offer

S.No	Name of Item	Specification with make	Unit Price	Taxes & Duties (mention)	Other charges if any (mention)	Total unit cost (for TFRI, Jabalpur)

Signature of Tenderer

7. Accessories if any (To be mentioned clearly)
8. Gaurantee/Warrantee of the item
9. Enclosures
 - (i) EMD
 - (ii) Catalogus
 - (iii) Registration Certificate
 - (iv) Income Tax Clearance Certificate
 - (v) Sales Tax / Professional Tax Certificate
 - (vi) Octroi etc. if paid (proof required)
10. Any other relevant information.....

Signature of the tenderer with stamp

SPECIFICATION

I. SUPPLY AND DIGITAL LECTURN WITH INTERACTION PANEL AND DIGITAL PEN EMD - RS. 3000.00

Description and specification of the items
<p><u>DIGITAL LECTURN WITH INTERACTION PANEL AND DIGITAL PEN</u> INTELLIGENTE MAKE DIGITAL POWER lectern (WOODEN), IN BUILT 17" Interactive Panel, Goose neck mike, Data Storage Device, Sensor Digital Pen.</p> <p><u>UPS</u> 3 KVA online with 60 min. battery backup along with battery bank and 1 year onsite . warrant. Make-APC/MICROTEK /LUMENOUS/ELNOVA</p>

II. SUPPLY OF HOT AIR OVEN

EMD FOR SN.I & II 10000.00

S. No.	Description and specification of the items
1	<p><u>Hot Air Oven</u> <u>P&G</u></p> <ul style="list-style-type: none"> - Temperature ambient range + 5 0 C to 250 o C or 1 0 C Controlled by unique dedicated Microprocessor controller with an accuracy of ± 0.1 o C.P.I.D Control, 0-999 minutes Retentive Process & Delay time with 7 segment LED Display. - Adjustable Overshoot alarm and heater cut off - Lowest power consumption ;and algorithm - In- built soft start for heaters prolongs heater life. - Feather touch button. <p>Width x Height x Depth-605x910x455 mm</p>
2	<p><u>Hot Air Oven</u> <u>E</u></p> <p>Double walled elements on three sides, fitted with thermostat, thermometer, temperature- 5 o C, ambient to 250+ 2 0C, synthetic rubber gasket at door, perforated adjustable selves, two indicators and ON/OFF switch to work on 220-230 Volts AC</p> <p>SS: 600x 600 x 600 (size) Air circulatory fan should be fitted in each side.</p>

III. SUPPLY OF LABORATORY OVEN

EMD FOR 8000.00

	<u>Laboratory Oven</u>	E
1.	<p>Volume: 110 litre (3.88 cu.ft) Temperature Range Ambient + 5 oC to 30oC Temperature Fluctuation Per DIN 12880 Spatial Uniformity Temperature Fluctuation Per DIN 12880 Control Fluctuation Load Per Shelf : 30 Kg Max.Total Load: 60kg (132 lbs) Oven Construction Main Body Electrogalvanized steel with white oven-baked epoxy power-coated finish Chamber:Stainless stree grade 304 Electrical: 220-240 V, AC 50HZ, 10 Oven Power/Amp 2140 W/9.4 A Net Weight: 69 kg (152 lbs) Shipping Weight : 85 kg (188 lbs)</p>	

IV . SPECIFICATION FOR AUTOCLAVE VERTICAL

EMD - RS. 10000.00

	<u>AUTOCLAVE VERTICAL</u>	P&G
1.	<p>Cat no.402 D 400x600 mm Load-4kw State of art ASIC (application specific integrated chip) based Mm controller . Provided with RS 232 output (Standard). Supplied with S.S. Inner chamber S.S. Outer body, S.S.Basket & S.S.Ltd. with Wing nut closing arrangement with automatic low water level cut off device, pressure control device.</p> <p>Diameter x Depth- 400x600mm Load-4 kw</p>	

V. UV VISIBLE SPECTROPHOTOMETER

RS.25,000.00

E&N

S. No.	Description & specification of the items
1.	2.
1	<p><u>UV-VISIBLE SPECTROPHOTOMETER</u></p> <p>Double beam, dual chopper, ratio recording, Czerny-Turner monochromator UV-Vis spectrophotometer, centrally controlled by a PC to measure liquids and solids. High light throughput quartz overcoated optical system with all reflective optical design, high speed accurate scanning. Optional centrally controlled accessory system. High performance R928 photomultiplier tube, tungsten halogen visible source with quartz window, deuterium arc ultra violet source.</p> <ul style="list-style-type: none"> • Phase locked wavelength drive system to Eliminates or minimizes peak shifts with varying scan speed. • Optics contained in one solid aluminum casting sealed from dust and vapor. • Double chopper optical design. The Double chopper design ensures that the sample and reference beams strike the detector at the same point.

	<ul style="list-style-type: none"> • Easy access to the source lamps without having to remove the instrument cover • Accessory controller for control of external or internal accessories or devices - accessories can be controlled via digital and analog common lines provided through various accessory ports. • Beam Splitting System: Dual chopper (30Hz) • Spectral Bandwidth (nm): 0.20-4.00 nm, 0.1 nm steps, motor driven, • Stray Light (%T) At 220 nm (10 g/L NaI ASTM method): < 0.02% At 370 nm (50 mg/L NaNO₂): < 0.005% <p>Wavelength Range : 190 - 900 nm</p> <ul style="list-style-type: none"> • Wavelength Reproducibility (nm) Standard deviation of 10 measurements, < 0.02 • Photometric Accuracy (Abs) Using Double Aperture method at 1 Abs: ± 0.0012 0.3 Abs: ± 0.0006 Wavelength Accuracy (nm) UV-Vis: ± 0.2 (190-900 nm) Full range has to be specified and not at specific D2 lines. • Photometric Range (Abs) > 3.7 • Photometric Reproducibility (Abs) Using NIST 930D filters, at 590 nm, 2 nm SBW, 2 second Signal Averaging Time Maximum deviation at 1 Abs: < 0.0008 Photometric Noise (Abs, RMS) UV-Vis (500 nm, 1 second Signal Averaging Time, 2 nm SBW): At 0 Abs: < 0.000085 , At 3 Abs, 1.6 Abs RBA: < 0.0004 • Maximum Scan Rate (nm/min)/(cm⁻¹/min*)/Å/min) 3000/37046/30000 <p>Baseline Correction Unlimited baseline scans can be stored. Modes include: Multicell, Multi-angle, 0% and 100% corrections, Standard reference correction</p> <ul style="list-style-type: none"> • Data Collection Modes: continuous scanning. stepped scanning, Signal to noise mode , ability to control the instrument and necessary colour measuring software capability. • Graphical Display: One display area for single or overlaid files. Unlimited display boxes with single or overlaid files. Various cursor modes including the Kinetic ruler. <p>IBM Compatible Data Station PC: Intel Pentium IV processor, 1.6 GHz, 40 GB HDD, 1.44 MB FDD, 128 MB RAM, 52X CD ROM, 15" colour monitor, 0.5KVA UPS, Deskjet printer and other standard accessories.</p>
2.	<p><u>UV-VISIBLE SPECTROPHOTOMETER</u></p> <ul style="list-style-type: none"> • UV – 2450 Single Monochromator System • UV – 2550 Double blazed grating, Double Monochromator system (DDM). • Wavelength Range – 900 nm to 190 nm (optionally 1100 nm to 190 nm in UV – 2550). • Variable Spectral Bandwidth with a resolution of 0.1 nm. • Exceptionally low stray light, wide dynamic range and small beam size to handle a wide variety of research and analytical applications. • UV – probe Spectroscopy software in MS Windows environment for complete instrument control and data processing. <p>Mets all GLP/GMP/ISO / Pharmacopoeial requirements.</p>

VI. SUPPLY COMPUTER ITEMS

EMD 50,000

Item name	No. of Unit	Configuration
GPS	05	Garmin Etrex GPS with memory card and cable
Workstation	04	HP workstation with i5 processor, HDD 350 GB Western Digital Caviar, 4 GB DDR RAM, dual monitor 21" LCD with dual monitor support graphic card from NVIDIA (6600 GTX) having a dual core GPU and a super cooled SMPS from ANTEC with Windows 7. (Preferred HP/DELL/Compaq)
Server	01	Xeon server, i5 with TPM chip and VT enabled 500 GB SATA HDD @ 7200 or 10k RPM. Twin LAN Cards with Windows 2008 R2 server standard edition X64, 21" TFT monitor. (Preferred HP/DELL/Compaq)
Scanner (A0Size)	01	42" A0 Size scanner for multipurpose and multi resolution scanning tasks, 1200 DPI optical resolution having scan and copy capability, sRGB.
Color Laserjet printer	01	600 x 600 dpi, 384 MB memory, hi speed USB 2.0 port, built in Fast Ethernet 10/100 Base-TX. (Preferred HP)
UPS	01	5 KVA Online UPS with 2 hrs backup battery

VII. LABORATORY FUME HOOD CHAMBER E

EMD RS. 5000.00

1.	<p>LABORATORY FUME HOOD CHAMBER (Size 4ft / 1.2 meter) Normal size : 1.2 meters(4') External Dimensions (W x D x H) : 1200 x 873 x 1500 mm; 47.2" x 34.4" x</p>
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XI. SUPPLY AND INSTALLATION OF SEED GERMINATOR **EMD - RS. 6000.00**

SPECIFICATION

Description:

No.of Chamber: One (heating & cooling)

Capacity: 10 cft. (approx) Display: LCD display with backlit

Light levels : OFF, 25%,50%,75% & 100% No. of Trays : 8-10 trays.

Humidity : Natural humidity with water inside .

Alarm : Audio visual alarm for temperature and humidity deviation.

Inner chamber : Stainless Steel.Temperature : PID control $10-45^{\circ}\text{C}\pm 1^{\circ}\text{C}$.

Compressor : Hermetically sealed type of standard make.

Evaporator : Finned Tubers.

Electronics : Microcontroller based. Digital display of temperature & humidity.

Operating Voltage : 220V, 50 Hz AC $\pm 10\%$.

It should have provision to Programme for different temperatures, light levels for different time intervals to simulate the requirements for normal seedling germination.

- Facility to record data and storage capacity of 1000 readings Programme lock.
- Audio Visual Alarm Display: 2x16 characters alphanumeric LCD display with backlit.Watchdog timer: It is installed in the Seed Germinator to check the programe and control at all the time. And make sure that the programme and control is working properly.Any surge in the electric supply may cause any control (Temperature, humidity and light) to latch at one position. This watchdog timer prevents surge in the electric supply which may cause any control (Temperature, humidity and light) to latch at one position.

--Items are required FOR at TFRI , Jabalpur

--Please specify tech. specification, make model tax position (if any), installation, demonstration.

CONDITION OF TENDERING FOR SUPPLY OF EQUIPMENTS

- 1. The tender documents, complete in all respects along with the enclosures should be submitted under sealed cover in person at the receipt counter of institute by putting inside tender box or should be sent by Speed post , registered post only (Not By Courier Services) so as to reach the office before the specified date and time. Tenders received after the specified date and time will not be considered and will be filed. The institute will no be responsible for postal delay.**
- 2. In case the date of opening of the tenders/ receiving the tenders is declared a holiday, the tenders will be received/ opened on the next working day at the specified timing.**
- 3. The tender shall be valid for a period of 120 days from the date of opening**
- 4. The quoted prices shall inclusive of all duties and levies except for excise duty and sales tax at the prevailing concessional rates, applicable against declaration of from 13 Photo Copy of the last sales tax registration number/ certificate should be enclosed along with tender.**
- 5. Full details of business terms and conditions e..g. packing and forwarding charges, delivery, validity period, guarantee of equipments, discount or any other information relevant to supply may also be given.**
- 6. Tenderer should clearly mention the make/brand of the machine complete specification and other information regarding the articles to be supplied and enclosed printed literature and original catalogue/ operational manual.**
- 7. The Director, Tropical Forest Research Institute, Jabalpur reserve the right to reject any or all tenders without assigning any reason. Director, Tropical Forest Research Institute, Jabalpur will have the full right to accept tender with higher rates without giving any reasons to tenderers and his decision will be final and acceptable to all.**
- 8. The act of giving tender shall be deemed to be the unreserved acceptance of terms and conditions of this tender.**
- 9. Conditional tenders are liable to be rejected.**

- 10. The earnest money as indicated will be deposited along with the tender in the form of Demand Draft/Banker's Cheque, in favour of Director Tropical Forest Research Institute, Jabalpur . The tenders will not be considered in the absence of required earnest money EMD in any other form like Bank guarantee, etc. will not be considered.**
- 11. In case of successful tender, the amount of EMD shall be kept as security deposit which will be released after successful installation and demonstration of the supplied goods in satisfactory conditions and EMD shall be returned to unsuccessful tenderers.**
- 12. The firms exempted from submission of EMD at the time of submission of the tender form ; if awarded the contract will have to submit a performance security equivalent to the EMD**
- 13. The tenderer may be asked to demonstrate the equipment before the Director, TFRI or any other officials/ nominated by him for adjudging the suitability of the equipment in that case, the tenderer shall be final and binding.**
- 14. Acceptance of the offer shall automatically carry with it a guarantee on suppliers part that every material supplied there under shall be fresh and free from defects and shall be consistent with the established and general accepted standards for the materials of type and in full conformity with the specifications. If it is found otherwise when put into actual use, it shall be replaced by the supplier at his cost even after the payment of the bill has been made.**
- 15. If the tenderer fails to comply with any of the above conditions or backs out from his/their tender or fails to supply within stipulated period to the satisfaction of the Director, Tropical Forest Research Institute, Jabalpur or any official authorized by him in this respect or fails to execute the agreement , the EMD of tenderer shall be forfeited the Institute. In addition to forfeiting the EMD, the Director shall be at liberty to obtain the material to the extent stated in tender notice from any other source. The excess expenditure if any, incurred by the Institute in making such purchase shall also be recoverable from the tenderer in full as per rules. If purchase are made at lower rates difference of cost shall not be payable to the tenderer. In addition, the institute may black list the tenderer for a period up to five years.**

- 16. The successful tender shall hereafter be called the supplier.**
- 17. The equipment are required to be delivered and installed in full with 45 days of the issue of the supply order.**
- 18. After the expiry of the delivery period, the supply order shall be automatically canceled The EMD /Performance Security deposited by the supplier shall be forfeited.**
- 19. Delivery of the goods in goods and sound condition at destination shall be the responsibility of the supplier. Any loss, breakage, leakage, theft, etc during transit or otherwise will be at the supplier's risk and cost.**
- 20. The replacement on account of wrong or short supplier and the suppliers inconsistent with the specification shall be done by the supplier, without extra cost.**
- 21. The supplier should be in a position to supply any spare parts (accessories required at least for period of five years after the expiry of warranty period.**
- 22. Payment will be made after receipt of items in good and satisfactory condition including their demonstration and satisfactory installation.**
- 23. Disputes, if any are subject to JABALPUR jurisdiction only.**