

## TERMS AND CONDITIONS

1. The tender should be accompanied with the **EMD** at the rate of **1%** for the value of the item quoted by the tenderer. The **EMD** will have to be deposited in the form of DD/C.D.R./Banker's cheque drawn in favour of "**Comptroller, MKV, Parbhani.**" (**Nationalized Bank's only**)

If the EMD is not enclosed, the tender will be rejected. The Earnest Money deposited by a firm or a person whose tender is accepted will be returned after the decision is taken on the said tenders after six months of successful demonstration of equipment from the date of demonstration.

2. All the articles will have to be supplied **FOR Latur**
3. The material should be of the approved quality **ISI mark** or as per the sample called for in a specific case or the specifications given by this office in the tender. The article which do not conform to approved specification(s) and consequently rejected will have to be replaced at the cost of the firm or supplier.

In the absence or unsatisfactory supply, the articles will be rejected and corresponding cost will be deducted from the suppliers bill.

4. The details with all specifications make of equipments and also authorized dealer / manufacturer certificate from company should be accompanied with tender.
5. It is discretion of the Chairman, Purchase Committee to increase or decrease the quantity of equipments and/or to relax the conditions in exceptional circumstances.
6. The articles should be supplied within a period of 15 days time limit from the date of issue of the orders for supply. In case of failure the Chairman shall have the right to purchase the article from the open market and to make good loss from the firm or supplier from his EMD or to impose a penalty @ Rs 100/- per item per day for the period for delay in supply. The decision of the **Chairman, Purchase Committee**, in the matter will be final.
7. It is open to accept even higher rates or to reject or to recall the tender without assigning any reason. Discretionary power of University authority to reject/accept tender without scrutiny and any prior reason.
8. The rates of each item be stated separately. The rates should be quoted in the space provided in the tender form or separately. Each paper should be signed by the Tenderer.
9. The rates should be quoted as per tender specifications only, rates without the specifications will not be considered.
10. The tender should indicate the rates in metric system of weights and measures thereof showing conversion rate, it should be allotted in the unit shown in the tender form only.
11. The purchasing officer will not pay octroi, taxes or damurrhage of the Municipal Council. The supplier will be responsible for this payment.
12. The supplier should note that the rates should be inclusive of VAT, packaging, loading and unloading, forwarding, transportation, installation, insurance etc. In this context the rate will be presumed to include all these charges.
13. Installation and demonstration of equipments with satisfactory performance should be given before the payment is made to the supplier. Payment will be made after satisfactory report is received from the concerned Intender /Scientists/Officer In charge.

14. The tender cover must bear the work “Tender for supply of **Equipments, Tissue Culture Facility and Servers**” and should be submitted to Associate Dean & Principal, College of Agril. Biotechnology, Latur
15. The goods should be dispatched at suppliers risk, however, the supplier will be responsible until the entire items are supplied in good condition at the destination.
16. The material should have guarantee/warranty of one year from the date of installation/demonstration. The material should be replaced at the cost of supplier within that period and the down time will be 14 days only.
17. The Tenderer must be registered under CST and MST etc. Attested copy of such certificate must be enclosed in **Envelope ‘A’** of the tender
18. The prescribed tender forms will be available in office of **Associate Dean & Principal, College of Agril. Biotechnology, Latur** and can be purchased on payment of **Rs.2500/ for original form received from this office and Rs. 3000/- for downloaded form available on University website in the form of DD/Banker’s cheque** payable in the name of Comptroller, MKV, Parbhani up to **19/01/2013**.
19. If the firm is under partnership, in that case attested copies of partnership deed certificate and power of attorney should be attached in the **Envelope ‘A’**.
20. Failure to observe any of the conditions mentioned above will result in the cancellation of the tender.
21. The security deposit of the accepted tender @ 4% be deposited in the form of D.D. in favour of Comptroller, MKV, Parbhani. The said amount will be returned after 6 months of successful demonstration with EMD.
22. (a) The rates approved must be **valid for one year**.  
(b) The party should give assurance of maintenance support for further period of five year after guarantee period. In such case University will enter into AMC contract.
23. Date and place of opening of tender will be communicated to the tenderer.
24. If necessary, negotiations will be made by the committee immediately.

**MARATHWADA KRISHI VIDYAPEETH  
COLLEGE OF AGRIL. BIOTECHNOLOGY, LATUR**

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No.COAB/Tender/ Equip/ /13

Dt: / /2013

<b>Tender Form No.</b>	
<b>DD/ Banker's Cheque No. and Date</b>	
<b>Amount (Rs./-)</b>	

To,

M/s -----

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**Sub: Blank Tender Form**

**Ref: Your letter No.**

**Dtd:**

Sir,

This office is in receipt of **Rs. 2500/-** by Demand Draft/ Banker's Cheque towards the blank tender form for the equipments, tissue culture facilities and server required for College of Agril. Biotechnology, Latur. I am enclosing herewith the set of tender form as desired by you.

The earnest money deposit prescribed for the above mentioned tender is @1% of the value of the equipments/instruments quoted by the tenderer.

You are requested to go through the terms and conditions of the tender before filling the tender form. The following points may be noted while submitting the tender form.

The EMD as prescribed above should be submitted in the shape of DD/Banker's cheque Nationalized banks only drawn in favour of 'Comptroller, MKV, Parbhani' and should be enclosed with the tender form.

The tender form should be submitted in the two Envelopes A and B both the envelopes should be superscribed as **Envelope A and B.**

**Envelope-A** containing

- a. EMD for Rs. \_\_\_\_\_ in shape of call deposit/DD/Banker's cheque drawn in favour of Comptroller, MAU, Parbhani as prescribed.
- b. EMD exemption will be given if the valid certificate is enclosed
- c. Copy of valid VAT/ certificate.
- d. Copy of firm registration certificate
- e. Copy of Partnership deed if any along with the general power of attorney.

**Envelope-B** containing

- a. Rates of the equipments etc. with make quoted in the tender form
- b. Undertaking in the prescribed form for supply of equipments etc.

Both these envelopes are to be enclosed in a large envelope addressed to the Associate Dean and Principal, College of Agril. Biotechnology, Latur and submitted **on or before 19/01/2013** upto **15.00 hrs.** in the office of '**Associate Dean & Principal, College of Agril. Biotechnology, Latur.**'

**Associate Dean and Principal  
College of Agril. Biotechnology, Latur**

**TENDER NOTICE****List of Equipments and Plant Tissue Culture Facilities  
as per required specifications (Item No. 1 to 22)**

<b>Item No.</b>	<b>Name of Equipment</b>	<b>Make</b>	<b>Specifications</b>
<b>1</b>	<b>Ligation water bath circulator</b>	Hoeffler/ Polyscience	Temperature range -10 °C to 110 °C Temperature stability $\pm 0.03$ °C Temperature selection Digital Temperature indicator LED display Temp read out : 0 C or F PID temperature control along protection
<b>2</b>	<b>UV Cross Linker</b>	Hoeffler	UV Lamps: Five 8 W 254 nm UV dual bi-pin discharge type tubes. Maximum Settings: Energy: 999,900 $\mu\text{J}/\text{cm}^2$ ; Time: 999.9 min , Microprocessor controlled UV sensor feedback system, large LED readout, multiple set functions (pre-set or user-specified UV energy or time) UV-blocking window
<b>3</b>	<b>Freezer (-20 °C)</b>	Thermo/ Vestfrost/ Siemens/ New Brunswick	Single solid door upright freezer, LED display, Minimum temp -20°C, adjustable from 0 to -20°C, Separate compartments with doors.
<b>4</b>	<b>Minispin</b>	Eppendorf/ Qiagen/ Genetix/ Thermo	Max. Rotational speed: 14000 rpm, max RCF: 12000 x g, Autoclavable rotor with Adaptors for various with size microfuge tubes. Low sample heating, maintenance free drive with timer.
<b>5</b>	<b>Tissue culture rack with light adjustment</b>	Steelmet etc.	Powder coated, white color Rack size: 52"X18"X84 " Shelf size: 50"X18"X13" Six shelf in each rack and made from 25x25x18 G, GRCA square pipe, vertical square pipe at four corners are made from 50X25X16G CRCA. Autoclavable polypropylene Basket for keeping bottles, front two wheel swivel type with locking arrangements, fluorescent tubes and electronic ballast and switches, lighting facility in all shelf with timer.
<b>6</b>	<b>Laminar Air Flow cabinets</b>	Microfilt/ Microclean	Horizontal, HEPA filter, prefilter, Motor blower assembly, Work table- polycarbonated, front door, size: 4'X2'X2' and 3'X2'X2', Velocity: 100 rpm at 6", SS table top 304 grade.
<b>7</b>	<b>Horizontal Sterilizer</b>	Medipharma/ Natsteel/ Biochem	Fully automatic, PLC with five preset programme, Pneumatic valve, Horizontal, rectangular, high pressure, single door system, manufactured as per Is. No. 3829, self locking safety door, low water protection system, Chamber size: 450X450X900 mm, 3 phase, automatic feed water system.
<b>8</b>	<b>Water Distillation Unit</b>	Medipharma/ Natsteel	<b>I) Single distillation unit:</b> Steel made, Pyrogen free, 40-80 L/hr capacity, Provided with SS joints and condenser without storage tank. <b>II) Double distillation unit:</b> Steel/ glass made, Pyrogen free, 40-80 L/hr capacity, Provided with SS joints and

			condenser without storage tank.
9	<b>Air Conditioners</b>	Voltas/ Bluestar/ Carrier	<b>I) 1.5 T/ 2.0 T split Air conditioners Unit</b> or Megaspit Air conditioner Unit with Installation. <b>II) Central Air conditioning Unit:</b> for culture room capacity 5 T with outer and inner unit.
10	<b>Refrigerator</b>	Panasonic/ Godrej/ Samsung	<b>I) Double door:</b> With separate Tempered Glass Shelf for storage of chemicals, glass door, electronic temperature display, capacity: above 265 liter. AG clean, LED lighting  <b>II) Single glass door:</b> With separate Tempered Glass Shelf for storage of chemicals, front glass door, electronic temperature display, capacity: above 265 liter., AG clean, LED lighting.
11	<b>Green House with Cooling System</b>		<b>1. Structure</b> <b>I) Pipe sections</b> a) Columns: 80 mm x 50 mm b) Trusses: Bottom cord 42 mm x 2mm; Truss Members 48mm x 48mm Bracing B-class GI steel pipe; structural member will be fitted with zinc plated nuts & bolts without welding. c) Perlins: using specially designed profile 38mm x2mm <b>II) Nuts and other metallic parts:</b> <b>2. Double Door Room:</b> <b>A) Double door room-</b> of size 2.1m x 2.1m x 2.43m (L xWxH) covered with 6mm thick polycarbonate sheet with required Partition <b>B) Door</b> – Double door size: 1.9m x 0.91m long & wide, normally lockable made with clear 6mm polycarbonate glazing, top & bottom tracks, jambs, flashings & installation hardware - 2nos. <b>3. Cladding System</b> Roof, end walls, & sidewalls for the Green house-set and double door room for rigid covering. 6mm thick clear multiwall Sabic polycarbonate sheet, Aluminum Profile, EPDM gasket, Silicon sealant, and accessories. Roof and Side wall covers by 6mm, UV stabilized clear polycarbonate sheet (make GE Sabic/Macron). 2TS 1300 81 3 is an impact resistant, energy saving, multiwall polycarbonate sheet, wide temperature range - 40°C + 120°C. Hail simulation, Light transmission: wavelength range between 295-2140nm, UVB Middle ultra violet region 280-315nm UVA near ultra violet region 215-380nm Visible light region 380 -780nm, antifungal treatment. <b>4. Evaporative Cooling System :</b> Cooling Pad, CELDEC cooling pad, All necessary framing material of Aluminum required supporting distribution & returning piping, Slow Speed Axial Flow Fan. <b>5. Shading System:</b> By 50% UV stabilized agro shading net, green in color, movable with manual rolling system will be provided. <b>6. Fogging System: A) Fogging System 1.5HP heavy</b>

		<p>duty motor with screen filter, Fogging nozzles, pipes, polymer water tank 500 ltr. <b>B) Pilltz Timer for humidity</b>– (Code no. 00346-00497).</p> <p><b>7. Light: A) Photosynthetically Active Radiation Lamp, B)</b> Fluorescent tube light standards 4’wide, each 40W.</p> <p><b>8. Control Panel for Automation:</b> Microprocessor Monitor &amp; Control Panel code no. 002264-00304 - A, which includes Light, Temperature &amp; Humidity Control System.</p> <p><b>9. Civil work: A) Foundation wall</b> for all sides of Green house along with the double door room. <b>WIDE Based</b> 1.5’ below earth’s surface, 1.5’ above earth’s surface, as kick-board 9” wide. Frame base block height 2’.</p> <p><b>B) Floor:</b> Natural Soil.</p> <p><b>10. Electrical Wiring:</b> All wires will be of copper and desired load, and switches imported make, extra switches as standby.</p> <p><b>11. Miscellaneous items:</b> washbasin, aluminum ladder, plumbing polymer pipes etc</p>
12	Polyhouse	<p><b>1.Structure:</b> <b>A)</b> All Structures, Rafters, Perlins, Trusses are hot dip galvanized and design to take a wind load up to 100 km/h and more. Complete structure design as per IS875 Standard. <b>B) Nuts and other metallic parts</b></p> <p><b>2. Entry Door:</b> <b>Door</b> – Double door size: 1.9m × 0.91m long &amp; wide, normally lockable made with clear 6mm polycarbonate glazing, top &amp; bottom tracks, jambs, flashings &amp; installation hardware - 2 nos.</p> <p><b>3. Side Ventilation with manually Operating system: Side Ventilation-</b> 11.6m. long and 1.5m. high × 2 Nos. Roll-up plastic curtains, open able to 1.5 m. in height, 40 mesh nylon insect-screen (UV stabilized) to be fixed inside the curtain on sides</p> <p><b>4. Covering:</b> Attaching the Plastic on Roof &amp; Side walls, of Polyhouse &amp; pre entry room- 200 micron UV stabilized poly film having 85% light transmission, multilayered, anti drip.</p> <p><b>5. Shading System:</b> 75% UV stabilized agro shading net, green in color, movable with manual rolling system</p> <p><b>6. Civil work: A) Structure</b> will be raised on C.C. (concrete cement) blocks 1'×1'×2'.</p> <p><b>B) Floor:</b> Natural Soil.</p>

13	<b>Online UPS</b>	Servo	2 KVA Online/ Offline UPS:, Servo made battery with backup of 1 h, 3 ph. 5 KVA Online UPS: Servo made battery with backup of 2 h, 3 ph. noise level less than 40 db, Alarm, LCD Display 10 KVA Online UPS: Servo made battery with backup of 5 h, 3 ph, noise level less than 40 db, Alarm, LCD Display, a rectifier, an auto float cum boost charger, battery backed inverter with under volt, over volt short-circuit protection along with a high degree of Input to Output isolation.
14	<b>Trolley</b>	Medipharm etc.	Trolley with removable shelves of size 500X1400X890 mm ht, provided with number of trays, SS handle, 4 Nos. 4" dia rubber castor wheels.
15	<b>Hot Plate Magnetic Stirrer</b>	Remi/ BR Biochem etc.	Stainless steel hot plate. Stirring capacity upto 20L , Temp range: Ambient – 340 0C, PMDC motor, 1500 rpm. Heating energy controlled by energy regulator, electronic display
16	<b>Weighing Balance</b>	Sartorius	1. Analytical balance: latest generation of the proven CP series, capacity- 320 g x 0.1 mg. 2. Cubis 0.01 g precision balances: 1,200 g x 0.01g
17	<b>pH Meter</b>	Sartorius etc.	Basic pH Meters 0-14.00 pH, Automatic buffer recognition during calibration, Automatic temperature compensation, Display with stability icon, display of measured value and temperature, Automatic electrode check and electrode slope display during calibration.
18	<b>Water Softener</b>	Set Lab etc.	Min. pressure: 2 kg/cm <sup>2</sup> max. pressure- 3.5 kg/cm <sup>2</sup> , Max flow rate 600 Ltr/hr, to get Highly soft water, less than 5 ppm hardness, fully automatic/ semiautomatic mode
19	<b>Bench Top Orbital shaker</b>	Thermo/ Bioline/ MaxQ etc.	Mini orbital shaker, Triple counter-balanced mechanism, Over-sized, adjustable, suction cup style, rubber feet minimize vibration, Ambient Operating Conditions 0°C to 60°C (32°F to 140°F)
20	<b>Plant Tissue Culture Laboratory development including furniture and related works (as per the Lab Layout Map appended herewith in <u>Appendix-I</u>)</b>		<b>Lab set-up requirements as per <u>Appendix-I</u> are to be done in following existing rooms at first floor of the college building:</b> <b>1. Distillation &amp; Washing Room:</b> ( 23.3 ft. x 11.10 ft) <b>2. Culture Room with complete insulation:</b> (14.8 x 23.3 ft) <b>3. Transfer Room:</b> (25.10 x8.6 ft) <b>4. Media Preparation Room:</b> (24.10 x 18.6 ft) <b>5. Autoclave Room:</b> (12.10 x 18.6 ft) <b>6. Decontamination Room:</b> (8.6 x 10.0 ft) <b>7. Exchange Area:</b> (8.6 x 8.2 ft) <b>8. Storage room/ area:</b> (8.6 x 10.0 ft) <b>9. Working Area with Staff arrangement:</b> (24.10 x 26.0 ft) All these rooms require Aluminum, Fire proof partition door with furniture, Minor Civil works (for modifications only, if necessary) and Minor Electrical and related works.

21	Server High End		<b>Intel Xeon Four Processor Six Core Rack Mounted (Maximum 4U)</b>	
			<b>CPU</b>	Intel Xeon MP E 7530, 1.86 GHz, 12 MB L3 Cache, 5.86 GT/S six core processor or better capable of Quad processing (Supplied with two Quad core processors as standard)
			<b>Mother board</b>	Inter 7500 chip set or equivalent OEM mother board
			<b>Slots</b>	6 PCI/PCI Express (with at least 2 x 4 and 2 x 8 PCI express ) slots.
			<b>Memory</b>	16 GB 800 MHz DDR3 FBD RAM upgradeable up to 256 GB.
			<b>Hard Disk Drive</b>	3 x 146 GB, 10000 rpm SAS Hot Plug
			<b>RAID controller</b>	4 port SAS controller with 256 MB cache
			<b>Monitor</b>	43.2 cm (17") TFT (Support 1024 x 768 NI Resolution) TCO - 03 certified.
			<b>Video Controller</b>	To support VGA or above resolution
			<b>Keyboard</b>	101 Key keyboard
			<b>Mouse</b>	Optical Mouse
			<b>Bays</b>	8 or higher internal Hot Plug bays
			<b>Ports</b>	3 USB port, 1 serial port
			<b>Cabinet</b>	Rack Mounted, Maximum 4U
			<b>Certifications</b>	Windows, Red Hat or Novell certified, compliance & support
			<b>DVD ROM</b>	8x or better DVD ROM Drive
			<b>Power Supply</b>	Redundant Power Supply
			<b>Fan</b>	Redundant Fan
			<b>Networking</b>	Dual LAN (10/100/1000) Network card with asset tracking Feature and Security management, remote wake up.
			<b>Power Management</b>	Screen blanking, hard disk and system idle mode in power on, set up password, power supply surge protected, automatic server reboot.
22	Server Medium End		<b>Server AMD Opteron Two Processor Six Core Rack Mounted Configuration:</b>	
			<b>CPU</b>	AMD Opteron 4180 six core 2.6 GHz six core, 64 bit processor or better capable of six core processing ( to be supplied with one processor six core as standard) with 6 x 512 KB L2 cache and 6 MB L3 cache or better 6.4 GT/S.

			<b>Motherboard</b>	SR 5670 & SP 5100 or better on OEM mother board (Motherboard should be capable of 2000 MHz HT Bus)
			<b>Slots</b>	2 PCI/PCI Express 64 bit.
			<b>Memory</b>	4 GB 800 MHz DDR3 RAM with minimum 8 DIMM slots
			<b>Hard Disk Drive</b>	2 x 146 GB, 10000 rpm SAS
			<b>RAID controller</b>	2 port RAID controller for RAID 0/1
			<b>Monitor</b>	43.2 cm (17") TFT Monitor (Support 1024 x 768 NI Resolution) TCO -03 certified.
			<b>Video Controller</b>	To support VGA or above resolution
			<b>Keyboard</b>	101 Keys keyboard
			<b>Mouse</b>	Optical Mouse
			<b>Bays</b>	2 or higher internal Hot Plug bays
			<b>Ports</b>	1 USB port, 1 serial port
			<b>Cabinet</b>	Rack Mounted
			<b>Certifications</b>	Windows, Red Hat or Novell certified, compliance & support
			<b>DVD ROM</b>	8x or better DVD ROM Drive
			<b>Power Supply</b>	Redundant Power Supply
			<b>Fan</b>	Redundant Fan
			<b>Networking</b>	Dual LAN (10/100/1000) Network card with asset Feature tracking and Security management, remote wake up .
			<b>Power Management</b>	Screen blanking, hard disk and system idle mode in power on, set-up password, power supply surge protected.

## Tender Appendix-I

### **Item No. 20 - Plant Tissue Culture Laboratory development including furnishing and related works to be done as mentioned below:**

#### **1. Distillation & Washing Room: (23.3 ft. x 11.10 ft)**

1. Fungal-resistant wall coating.
2. Two Storage Wall mounted Racks with modulated panels (6 x 6 ft).
3. Separate small wall-mount cabinet with modulated panels above sink (4 x3 ft).
4. Other minor electrical extension from present points.

#### **2. Culture Room with complete insulation: (14.8 x 23.3 ft)**

1. ISO Class 100000 (1Lakh) **OR** as per aseptic plant tissue culture lab standards of Biosafety.
2. Epoxy coated (insulated) ceiling/ roof wall (or any other better option).
3. Windows to be sealed & Emergency door with partial sealing inside.
4. Stop Door to be made with air-lock chamber (for aseptic material transfer).
5. Other minor electrical extension from present points.

#### **3. Transfer Room with complete insulation: (25.10 x8.6 ft)**

1. ISO Class 100000 (1Lakh) **OR** as per aseptic plant tissue culture lab standards of Biosafety.
2. Epoxy coated (insulated) ceiling Roof & All Walls (or any other better option) with PolyFlor.
3. Windows to be sealed & 2 Air-Lock Stop Doors with Compartment at entry.
4. Limited Access Collapsible Air-lock Window (2.5 x 3).
5. Wall-concealed piping connecting from Exchange area to each Laminar Air Flow Units (LAF) in Transfer room.
6. Medium-sized Wardrobe (1) like cupboard for apron-dressing clothes material,
7. Other minor electrical extension from present points,
8. Granite Bench for general working with modulated sliding racks below (12 x 1.5 ft).

#### **4. Media Preparation Room: (24.10 x 18.6 ft)**

1. Fungal-resistant wall-coating,
2. Two Storage Wall mounted Racks with modulated panels (5 x 6 ft),
3. Separate small wall-mount cabinet with modulated panels above sink (4 x3 ft),
4. Storage Cupboards Racks in Media Room (10 x 6 ft) (for storing chemicals: Acidic Reagents, Alcohol, Glasswares etc.),
5. Air-Lock Stop Door at entry (5 x 6 ft) & Compartment with stop door,
6. Other minor electrical extension from existing points.

#### **5. Autoclave Room: (12.10 x 18.6 ft)**

1. Two Storage Wall mounted Racks with modulated panels (5 x 6 ft)
2. Storage Wall mounted Racks with modulated panels (6 x 6 ft)
3. Modulated (MDF panels) sliding cupboards racks/ trolleys under granite top side benches (size as per map) Bench Height= approx 3.5 ft.

#### **6. Decontamination Room: (8.6 x 10.0 ft)**

1. Fungal-resistant wall coating
2. Two Storage Wall mounted Racks with modulated panels (5 x 6 ft)
3. Aluminum Compartment (size as per room map)
4. Two Storage racks & one Cupboard of medium size (for Chemicals & Plastic/ Glasswares storage)

#### **7. Working Area with Staff arrangement: (24.10 x 26.0 ft)**

1. Furniture: Workstations (3 Nos.).
2. Executive chairs (5 Nos.) & Lab chairs/ stools (stainless-steel) (10 Nos.).
3. Aluminium Compartment (4 x 8 ft).

**Note: Please refer the Plant Tissue Culture LAB LAYOUT: (FURNISHING & OTHER RELATED WORKS) is appended herewith.**