

**Marathwada Krishi Vidyapeeth  
Parbhani – 431 402 [Maharashtra State] India**

**TENDER NOTICE**

Marathwada Krishi Vidyapeeth, Parbhani intends to purchase various equipments under State-of-Art grants to support P.G. research in basic and frontier science subject for different faculties in the university. The details of equipment along with specifications, terms and conditions of purchase are available in the Tender form. The equipment will be purchased subject to the availability of funds. It is not binding to purchase each and every equipment mentioned in the list . The committee has a right to purchase a specific equipments the priority of the requirements and availability of funds. The Blank Tender will be available from 1-3-2011 in the office of the Director of Instruction and Dean, F/A, MKV, Parbhani during office hours by paying Rs. 2500.00 in the form of D.D. (only nationalized bank) drawn in favour of Comptroller, MKV, Parbhani. Also forms are available on University website and additional Rs. 500/- will be charged for downloaded application form from university website <http://mkv2.mah.nic.in>. The last date of submission of filled tender form is 16-03-2011. The tenders will be opened on **17-03-2011 at 11.00 hrs.**

Place: Parbhani  
Date : 1-03-2011

**Director of Education and Dean, F/A,  
Marathwada Krishi Vidyapeeth,  
Parbhani**

MARATHWADA KRISHI VIDYAPEETH

PARBHANI-43402 (M.S.)

No. GGK/

Dt: \_\_\_\_2011

Tender form No.	
DD/Banker's Cheque No and date	
Amount	<b>Rs. 2500/-</b>

To  
M/s \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sub: Blank Tender Form

Ref: Your letter No.

Dt:

Sir,

This office is in receipt of Rs.-----by Demand Draft/Banker's cheque towards the blank tender form for the laboratory equipments/instruments required for various faculties of MKV, Parbhani. I am enclosing herewith the set of tender form as desired by you.

The earnest money deposit prescribed for the above mentioned quotations 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 (only nationalized banks) 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 super scribed as Envelop A and B.

### **Envelop A**

- a. EMD for Rs. \_\_\_\_\_ in shape of call deposit/DD/Banker's cheque (nationalized bank) drawn in favour of Comptroller, MKV, 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.

**Note : If Envelope 'A' contains the above listed documents, then the Envelop 'B' of the firm will be opened.**

### **Envelop B**

Envelop B containing

- a. Rates of the equipments/instruments quoted on the tender form
- b. Undertaking in the prescribed form for supply of instruments/equipments.

Both the envelopes are to be enclosed in a large envelope addressed to the Director of Instruction and Dean, Marathwada Krishi Vidyapeeth, Parbhani and submitted on or **before 16.3.2011 up to 15.00 hrs.**

Director of Instruction and Dean  
M.A.U., Parbhani

## 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 (nationalized bank only) drawn in favour of Comptroller, MKV, Parbhani.

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 **CIF Mumbai** or **FOR Parbhani**.
3. The equipments 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 confirm 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 certificate from company should be accompanied with tender..
5. It is within the discretions of the Chairman, Purchasing Committee to increase or decrease the quantity of purchase and /or to relax the conditions in exceptional circumstances.
6. The articles should be supplied within a period of 90 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 10/- per item per day for the period for delay in supply. The decision of the **Chairman, MKV, Parbhani** 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 only. 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 demurrage 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 (State-of-Art)**” and should be addressed to the Director of Instruction and Dean, Faculty of Agril., Marathwada Krishi Vidyapeeth, Parbhani.
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 to 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 **Envelop ‘A’** of the tender.
18. The prescribed tender forms will be available in office of the **Officer of Director of Instruction and Dean, Faculty of Agril., Marathwada Krishi Vidyapeeth, Parbhani (M.S.)** and can be purchased on payment of **Rs.2500/- in the form of DD/Banker’s cheque** (nationalized bank only) payable in the name of Comptroller, MKV, Parbhani up to **15/03/2011 and on the website of university by paying additional Rs. 500/-**.
19. The rate should be **valid** up to **one year** from the date of opening tenders.
20. If the firm is under partnership, in that case attested copies of partnership deed certificate and power of attorney should be attached in the **Envelop A**.
21. Failure to observe any of the conditions mentioned above will result in the cancellation of the tender.

22. The security deposit @ 4% be deposited in the form of **D.D.** (nationalized bank only) have to favour of **Comptroller, MKV, Parbhani** a firm whose tender is accepted. The said amount will be returned after 6 months of successful demonstration with EMD.
23. 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.
24. The equipment will be purchased subject to the availability of funds. It is not binding to purchase each and every equipment mentioned in the list . The committee has a right to purchase a specific equipments the priority of the requirements and availability of funds

**List of equipments to be purchase under State of Arts Funds (ICAR : 2010-11)**

Sr. No.	Name of equipment with specification	Cost
1	<p><b>Stereo Zoom Trinocular Microscope</b> with Digital camera</p> <ul style="list-style-type: none"> <li>• Objective zoom ratio:1:7</li> <li>• Objective zoom range: 0.65X to 4.5X</li> <li>• Antifungus treated optics with pair of SWF 10X / 22mm eyepiece- working distance – 100 mm</li> <li>• Interpupillary distance adjustment – 55-5mm</li> <li>• Binocular head inclination – 45 degree</li> <li>• Diopter adjustment - +- 5 diopter</li> <li>• Optical body rotation – 360 degree retracted and transmitted lamination</li> <li>• Top halogen lamp 6V 15W adjustable brightness</li> <li>• Bottom fluorescent lamp - 5 W</li> <li>• Trinocular tube for Camera attachment</li> <li>• Key feature: Parfocality, One time focus for all zoom magnifications, Ergonomic design- antifungus treated optics</li> <li>• Digital camera: Above 7 mega pixels with Rechargeable Battery and charger and with optical microscope adapter with 8 GB memory card.</li> <li>• 29 inch LED monitor for Projection of Picture</li> </ul>	
2.	<p><b>Real Time PCR System</b>            Ultra fast Realtime PCR with Ramp rate of 60C., Simulated tube control for precise control of the sample temperature., Impulse PCR features to speed up reaction. Device driven hot start facility with fast ramp in the initial step which helps in faster PCR protocol and no side products ,Standard 96 well format.            Individual tubes and plates can be used. Standard format useful for using standard consumables and sample preparation instruments, TSP (Temperature Safety Protection) technology to ensure absolute sample integrity and no possibility of evaporation, Temperature gradient feature to optimize SYBR assays., Gradient optimization at all 3 steps of PCR should be possible, Triple Circuit Technology for precise control of temperature Gradient, Excitation source is an array of 96 Blue LED. Detector as Channel Photomultiplier Tubes (CPM) with minimum magnetic interference and dark current., Option to switch off detection system to use the system as regular PCR, Should be a Chemically open system:            supports SYBR Green dye, Taqman, Molecular Beacons, scorpions, Detection of most common fluorescent dyes [ SYBR, FAM, VIC, JOE, TET, HEX, TAMRA , ROX], 4 colour Multiplexing possible, with or without ROX., Should Supports reaction volumes of 10 -100µl, Sensitivity _ 50 fM fluorescein, Melting curve analysis for SYBR Green Assays, Online monitoring , Fully licensed for diagnostic real-time PCR, <b>HRM (High Resolution Melt) : Conventional DNA Melt/Anneal analysis and auto-call genotyping capability is standard on all models. New HRM capability is optional and comprises a dedicated high-performance optical subsystem, additional hardware and specific HRM analysis software. (fully integrated).</b>  <b>OTV (optical temperature verification) Kit</b> For automated thermal performance verification and calibration of Rotor-Gene systems to ensure thermal accuracy and rotor thermal and optical performance            Includes a Disc pre-loaded with sets of thermochromic liquid crystals (TLCs),</p>	

	fluorescent inserts and a CD with service note and experiment profiles Centrifugal Format	
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Sr. No.	Name of equipment with specification	Cost
3.	<b>Systronics</b> <b>UV Visible spectrophotometer</b> – AU-2700 Double Beam UV/VIS Spectrophotometer specifications Item description Monochromator equipped with high resolution concave diffraction grating and Seya-Namioka mount Wavelength range 190~1100 nm Spectral bandwidth 1 nm (AU2701), 1.5 nm (AU 2700) Stray light 0.05% or less (220 nm, NaI, 340 nm NaNO <sub>2</sub> ) Wavelength Accuracy ± 0.3 nm Wavelength setting Repeatability ± 0.1 nm Photometric mode Abs, %, T Conc Photometric range Abs : -3.000~3.000. % T 0~600% T, Conc : 0.000~9999 Photometry Accuracy (measured with NIST 930D Filter) ± 0.002 Abs(0~0.5Abs)±0.004 Abs (0.5~1.0 Abs) = 0.008Abs (1.0)	
4.	<b>Head space Oxygen and carbon Dioxide Gas Analyser</b> Built-in rechargeable battery includes module for O <sub>2</sub> /CO <sub>2</sub> Analysis with Data logging facility and rubber septums.	
5.	<b>Ethylene Analyser</b> Range 0-100 ppm Ethylene Resolution : 0.1 ppm, Temp. range 0-35 deg. c. Pump Flow : Typically 0.8 l/min	
6.	<b>Automatic pouch packaging machine</b> <b>Model</b> – OI-L-500 ml, Capacity : 1200 pouches / hr, Auto submersion of liquid for ground based tank with SS pump Pneumatic system	
7.	<b>Vacuum packaging machine</b> <b>Model</b> : Single chamber Trolley, High density see through lid SS lid with or without high density see through cut out additional seal pressure, Chamber size : 500x450x100mm Seal length : 475 mm, No. of seal bars : Two	
8.	<b>Total organic carbon analyzer</b> To simple operate and measure direct TOC	
9	<b>Electronic Lab Balance</b> Make : Sartorius AG Germany, Model No. BSA 223S-CW, Weighing capacity : 220 gm, Readability : 0.001 g, Readability : <0.001 g, Response time : 1/3 sec avg, Linearity : < 0.002g, Pan size : 115 mm Dia Calibration : Built in motorized calibration	
10	<b>Working model of tractor</b> 1 HP motor fitted with model	
11	<b>Neutron probe moisture meter</b>	
12	<b>Hot Air Oven</b>	
13	<b>Auto Clave</b> Large size 40 lit., SS chamber, carriers flange, fly screw cross pin hinter cover strand ware fully stainless steel.	



Sr. No.	Name of equipment with specification	Cost
14	<b>Horizontal Laminar Airflow</b> Model size – 4x2x4 (Ft), Ext. Dimension (Inches) 48x40x58 Work area dimension (inches) – 48x24x22, Voltage-230V, Florescent Lights (Watts) – 2x40. U.V.Lights-18.	
15	<b>Seed germination</b> SGM-6S No. of shelves –3, Int.Dimension (mm)- 500x410x840. Ext. Dimension (mm) – 620 x 670 x 1380, Temp. Control – Microprocessor, Temp. Range-10-60 <sup>0</sup> C, Humidity range – 40-95%, Electricity-220-240 Volt, 50HZ Single phase,	
16	<b>Deep Freezer</b> Quick Freezer Horizontal model (Temp. upto -20 <sup>0</sup> C) Model RQF-265, 265 liters capacity inner chamber of stainless steel with built in Digital temperature indicator cum controller having audio visual alarm.	
17	<b>Software for Mapping and Contouring</b> <b>Multiuser</b> Color anchors at any percentage point between 0 and 100. Export contours in 3D DXF and 3D SHP formats Drape contour map layers over 3D surfaces or 3D wireframes for dramatic displays ,Set lighting horizontal and vertical angles, ambient, diffuse, and specular properties , Overlay contour maps, image maps, post maps, shaded relief maps, raster and vector base maps and other surface maps for spectacular presentations.	
18	<b>Nanophotometer</b> Wavelength range-190-1100 nm Wavelength scan range- 200-950 nm, Photometric range= 0.3-2.499A, 0-199%T, Lamp-Xenon flash lamp	
19	<b>Texture Analyzer</b> 1) Texture Analyser of minimum 50 kg load frame capacity with 50 Kg load cell. (Note that the instrument should work up to the capacity of the load cell i.e. up to 50 Kgs). All load cells should store their unique calibration and identification information in ‘onboard’ non-volatile memory. The force resolution should be 0.1 gm. 2) Data Acquisition Rate for the instrument should be up to 500 Points per Second (pps) for each data channel. i.e. one can vary the rate at which the data is collected and plotted with a maximum of 500 pps. Reports generated at different data rates must accompany the quotation. The recommended rate at which the tests should be conducted on food products may be specified in the quotation.  The instrument should have a Speed Range of 0.01 – 40mm/sec with Accuracy better than 0.1%.	
20	<b>Unconfined compression testing machine</b> Electrically cum hand operated as per IS2720 consist of load frame, capacity 50 KN with three rates of travel 1.25 mm 1.5 mm and 2.5 mm and conucal platen of size 38, 50 and 100 mm having 1:2 ratio	

Sr. No.	Name of equipment with specification	Cost
21	<b>Triaxial shear test apparatus</b> For testing soil specima of size 38 mm dia 76 mm long as per IS 2720 consist of load frame, triaxial cell lateral pressure assembly proving ring and dial guage.	
22	<b>Direct shear test apparatus</b> As per IS 2720 for a specimen size 60x60x25 mm manually cum electrically operated with loading unit, shear box assembly cutter set, set of weights proving assembly.	
23	<b>National solar radiation recorder( Pyranometer)</b> Display :16 charector x 2 lines LCD sensor input : soalr radiation Real time clock : RTC with programmable alarm data storage 512 K EEPROM Power supply 12 V/ 14 AMP SMF Battery Battery charging Soalr panel or Battery charger Sampling rate : programmable from 1 min to 24 hr. operating temp: -20 <sup>0</sup> to 55 <sup>0</sup> operating humidity 0 to 100 non condensing Data retrieval : On computer & Data Shuttle <b>Technical Specification for Sensor :</b> Caliberation : 0.25 Mv per W m <sup>2</sup> Range : 0 to 1000 Wm <sup>2</sup> Operating Temperature : -40 to 55 <sup>0</sup> C Sensor Housing : Weather prof anodised aluminium case with acrylic diffuser and stainless steel hardware Size : 24mm, dia 25 mm tall Albedo measurement : Provided as per requirement	
24	<b>Oven Universal semi automatic digital model</b> Internal dimension in mm (WxDxH) 605x605x910	
25	<b>LCD DLP projector</b> with 7'x5' motorized rolling screen (Detailed specification as per Govt. of Mah. )	
26	<b>Automatic scrubber driers for intensive wet cleaning of hard floors.</b> Compact, maneuverable easy to operate, Battery or main operated working width 350 mm or 430 mm with area performance up to 1.700m <sup>2</sup> /hour.	
27	<b>Onlines UPS</b> 5/10 KVA online UPS (single phase) with inbuilt servo stabilizer with 1.5 hrs. back up.	
28	<b>Bio Rad camera</b> for Gel Doc System Use in gel documentation having CCD high resolution and modular options, pixal size 4.65 x 4.65	
29.	Unified thereat management system for 100 users.	

Sr. No.	Name of equipment with specification	Cost
30.	<p>Portable leaf area meter            LI 3000 C Portable leaf area meter , includes carrying case battery, RS 232 Serial Cable, communications software for IBM PC, Li 3050 C Transparent Belt Conveyer Acc (includes 2 Nos. 35 TB Transparent Belts)</p>	
31.	<p><b>Modified Atmospheric packaging system (Lab scale)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Vacuum &amp; Gas Packaging Machine for Bags &amp; Trays.</li> <li><input type="checkbox"/> Gas Mixer</li> <li><input type="checkbox"/> Gas Cylinders with regulators for Oxygen, Carbon dioxide and Nitrogen with Buffer tank and gas manifold</li> </ul> <p>Detailed Specifications.            Vacuum, MAP - Bag and Tray Packer with Tray Holder, Double Sealing, with programmes, Filter Plates, Self Calibration, Cut-off-Sealing, Soft air, Manual film cutting, Manual transport of film, Service Indicator, Vacuum Pump: 20m<sup>3</sup>/h and Voltage: frequency: 3x400v, 50Hz with Integrated gas mixer And gas Analyser.            Gas Mixer. - Proporational gas mxing principle            High accuracy for optimal mixing quality            Accuracy :Better than +/-2% absolute within a flow range of 15 -100% and mix settings of 10-90%.            Gas in/gas out : Rear panel,Mixture adjustment : Manual, Cabinet : Stainless Steel            Alarms : Inlet Pressure alarm with visual indication per gas and signal out (contact relay) on the rear panel. Acoustic alarm for a too low gas inlet pressure,Sturdy induatrial design made in stainlesssteel/aluminium            Easy mixture adjustment,Optional ON/OFF solenoid valve for gas flow            Gas Cylinders with regulators for Oxygen, Carbon dioxide and Nitrogen with Buffer tank and gas manifold</p>	
32.	<p><b>Gas Analyzer</b> Meant for monitoring CO,CO<sub>2</sub>, HC &amp; O<sub>2</sub> chemical sensors. Also available in 4 gas version.            CO – 0...15%, HC – 0...3000 ppm, O<sub>2</sub>- 0...25%, CO<sub>2</sub> - 0-20%, No (Optional) – 0...5000 ppm, Temperature – 0...99.9<sup>0</sup>C, Resolution : C<sub>0</sub>,O<sub>2</sub>, CO<sub>2</sub>, -- 0.01%, HC – 1 ppm, Temperature – 0.1<sup>0</sup>C            Sample handling system – SS probe, PU tube with detachable connectors, water separator cum filter, disposable particulate fine filter, flexible.</p> <p><b>Technical Specification of MAU, Parbhani :</b>            Display - 20 Character x 4-line Backlit LCD Display Additional 8mm multi colour LED display for each gas for distant view.            Printer – Dot-matrix printer, 24 coloumn.            Keyboard – Membrane keypad, 16 keys            Start up time – 1 minute from power on full accuracy within 15minutes.            Response time (T90) – &gt; 20 seconds            Operating temperature – 5.45 degrees centigrade            Power supply – 230 V AC/12 V Dc Dimensions (W*H*D) – 340*130*240* Weight – 4 kilograms</p>	

Sr. No.	Name of equipment with specification	Cost
33.	<b>Computerized Grain / Seed Counter</b> Micro controller based 16x2 line alphanumeric LCD display with backlit. Count max. up to 999999 seeds in a lot. Can count very accurately small grain/seeds even upto 03 mm Knob. provided for removing pan easily. Separate pan for seed size below 1 mm. Digitally programmed with soft start vibration speed control (no knob required) Rs.232 interface capabilities for attaching computer and printer adjustable knob provided to ensure that the seed moves in single row. Programmable stop to compensate inflight error. Programmable seed size and speed memory for 99 commodities metallic pan of volume-200 cc. INDOSAW	
34.	<b>Compact Universal Digital Moisture Meter</b> Calibrated for food grains, pulses and oil seeds. Data logging with data storage capacity 200 readings 2x16 character alphanumeric LCD display with membrane keypad three hot keys for any three crops. Calibration check and error correction and auto calibration averaging and last readings recall facility. Re-programming of Factory settings with oven test for all commodities without opening box. Test cup made of stainless steel. INDOSAW	
35.	<b>Mini Tray Drying Oven</b> MSW-214, Model no. MTD-224 (SAD), Internal size 605x605x605 tray capacity-9, MAC	
36.	<b>Hydraulic juice press</b> – Hand operated with SS. Tray, a wooden crates, a thick mild steel base tray, MAC	
37.	<b>Centrifuge machine</b> , Speed 15000 rpm,	
38.	<b>Head space oxygen and carbon dioxide gas analyser</b> , Built in rechargeable battery includes module for O <sub>2</sub> /CO <sub>2</sub> Analysis with Data logging facility and rubber septums. PBI Dansensor, Denmark	
39.	<b>Interactive panaboard</b> Black & white, Panel surfaces-2, Panel dimension – 900 x 1400 mm, output media plane paper, copying time approx. 15 sec / sheet	
40.	<b>LED TV</b> size 52” or 46” with full HD, WI-FI, USB input, DLNA, Internet video	

**Note :** It is not binding to purchase each and every equipment mentioned in the list.

The **central purchase committee** of the University has a right to purchase a specific equipments according to the priority of the requirements and availability of funds.