



**DR. PANJABRAO DESHMUKH KRISHI VIDYAPEETH**

**✧ 2011-12 ✧**

**TENDER FORM FOR PURCHASE  
OF LAB EQUIPMENTS**

**Centre of Excellence for Citrus**

**Horticulture Section**

**COLLEGE OF AGRICULTURE, NAGPUR**

**TENDER FORM FOR SUPPLY OF LAB EQUIPMENTS**  
**Horticulture Section,**  
**COLLEGE OF AGRICULTURE, NAGPUR**

To,  
The Principal Investigator & Professor,  
Horticulture Section, College of Agriculture,  
Nagpur.

Dear Sir,

1. In response to the tender notice published in the daily newspaper \_\_\_\_\_  
dated \_\_\_\_\_ th \_\_\_\_\_  
I/We submit herewith the tender form for providing Lab equipments.
2. I/We have thoroughly examined and understood the General and specified terms and conditions of the tender form and I/We agree to abide by them in toto and in testimony I had signed the declaration and undertaking.
3. I/We agreed to provide the Lab equipments and accordingly have quoted the rates inclusive of all taxes, freight, etc as given in Appendix-II.
4. I/We shall be bound by communication of acceptance of the offer, dispatched within prescribed time.
5. I/We accept that the right to accept or reject whole or part of the tender without assigning any reason is reserved with the Professor of Horticulture, College of Agriculture, Nagpur. The decision of the Professor of Horticulture will be final and shall be binding on me/us.
6. A Demand Draft (D.D.) of EMD for providing Lab equipments payable at Nagpur bearing No. \_\_\_\_\_ & \_\_\_\_\_ dated the \_\_\_\_\_ 2011 in favour of the Professor of Horticulture, College of Agri., Nagpur is enclosed herewith.
7. I/We agree to provide Lab equipments as per the specifications of the final orders for the period specified in special conditions of the concerned activity.
8. As per the terms and conditions, we are submitting our offer in two envelopes. The documents as per Appendix – I are enclosed in envelop no. 1. (Technical envelope) along with DD of EMD. The envelope no.-2, (Commercial envelope) contains rates quoted by me/us.

Signature of Tenderer

9. I/We also agree that Professor of Horticulture has full rights to open/consider the commercial envelope only, if Professor of Horticulture is satisfied with contents in Technical envelope. The decision of the Professor of Horticulture regarding this will be final and binding on me/us.

10. I/We hereby declare that the entries made in this tender form and enclosed draft of agree ..... on apex are binding for me/us. To facilitate checking and as a step for ensuing that all documents are enclosed. I have numbered all documents and attested copies. As provided in this tender I have filled relevant entries in the checklist provided along-with this form & same is enclosed in Technical envelope.

11. Committee will open both the envelopes simultaneously but if the documents and EMD are not as per the terms and conditions then offer will not be considered.

The following documents duly filled in and signed, are enclosed along-with the tender.

Enclosures : 1) Envelop No. 1 (Appendix-I Part- I,II, III, along with Checklist and declaration)

2) Envelop No. 2 (Appendix II) along with the DD of EMD of Rs. 5,000/-.

Place \_\_\_\_\_

Yours faithfully,

Date \_\_\_\_\_

Name and Signature of  
the Tenderer/Contractor

Phone No. \_\_\_\_\_ Mob. \_\_\_\_\_

**Appendix – I (Part-I)**  
(This should be enclosed in envelope No. 1)  
**CHECKLIST MUST BE FILLED BY THE TENDERER**

Paste recent  
passport size  
photograph  
with signature

The documents enclosed with tender form are as listed below. Any omission makes the tender liable for rejection. Before sealing the tender please check up each item and score at the appropriate place with YES or NO. You must also quote the relevant page number. You may attach other information also but state in the list after numbering the same pages.

Sr. No.	Details	Whether Attached	Page No.
1	D. D. of E. M.D.	Yes / No	
2	Company profile, Information booklet if any	Yes / No	
3	Documents in support to reveal capacity to supply the material	Yes / No	
4	Identity Card and address proof	Yes / No	
5	Envelop 1 (Appendix – I, Part I, II, III and IV)	Yes/No	
6	Envelop 2 (Appendix-II for rate per Lab equipments with specification )	Yes/No	
7	DD of tender form / Xerox copy of receipt of Tender form Rs. 1000/-	Yes/No	

The above details have been checked and found correct.

Place:

Date:

(Official Seal)

Signature of Tenderer

**Appendix – I (Part –II)**  
**“DECLARATION OF THE TENDERER”**

- 1) That I / We \_\_\_\_\_ am / are the authorized nominee(s) of the firm \_\_\_\_\_ hereby submit tender to the University for the supply of Lab equipments to Horticulture Section, College of Agriculture, Nagpur under Dr.P.D.K.V. Akola.
- 2) I am to state that the information provided in the tender form is true and correct
- 3) I / We may be punished as per law for any wrong information, misleading facts provided in the tender form besides rejection of my / our tender.
- 4) In case of any dispute, the Jurisdiction will be Nagpur only.
- 5) I / We have carefully read all the general and specific terms and conditions of the tender and I solemnly declare that the same are acceptable to me/us and binding on me/us.

Place:

\_\_\_\_\_  
Signature of Tenderer:

Date:

Name of Tenderer: \_\_\_\_\_

Capacity in which signed : \_\_\_\_\_

Full address of the Tenderer : \_\_\_\_\_

With seal & stamp :

(Attach Identity card Xerox) \_\_\_\_\_

Phone No. : \_\_\_\_\_

Mobile No. : \_\_\_\_\_

## APPENDIX I (PART – III)

### Terms and Conditions for Tenderers for providing Lab equipments

#### A. GENERAL

1. a) Sealed Tenders are invited from different firms/ Manufacturers/ suppliers bid system to supply Lab equipments. Tender form will be available on working day on payment of Rs. 1000/- in cash in the office of Professor of Horticulture, College of Agriculture, Nagpur.
2. The tender form will be accepted during working hours on any working day and latest **upto 1 p.m. on 13.02.2012** at C/o Professor of Horticulture, College of Agriculture, Nagpur and will be opened on the same day (if possible) at 3.00 p.m. in the o/o Professor of Horticulture in presence of members of Tender Committee and intending bidders who desires to attend. Only bidder or his representative will be allowed to remain present on production of Identity Card.
3. Tenders received late will not be considered. In case tenders are sent by Registered post, it shall be the responsibility of intending Tenderer to ensure that they are received before closing hours.
4. **Tenderer (s) must sign with seal on each page failing which College/University may reject tender in toto.**
5. The rates submission on PTF (Plain Tender form) costing Rs. 1000/- is mandatory and PTF should be purchased in the name of such firm who is expected to use it. Otherwise his tender form will be rejected.
6. If any dispute arises in this regard, then Tenderer can submit his appeal before Grievance Committee. The decision of Professor of Horticulture will be final and binding on Tenderers.
7. (a) The Tenderer should provide the following documents in Technical envelope with superscription **“TENDER FOR SUPPLY OF LAB EQUIPMENTS. D. D. of E. M. D. Rs. 5,000/- (Rs Five thousand only) of Nationalised/Scheduled Bank payable at Nagpur.**

The E.M.D. should be in the form of Demand Draft payable at Nagpur and should be drawn on any Nationalised/Scheduled Bank. It should be in favour of Professor of Horticulture, College of Agriculture, Nagpur. No interest shall be paid on EMD.

Signature of Tenderer

- 7(b)** Tenderer shall have to produce the certificate of Manufacture or dealership should be attached with document of envelope No.1.
- 8.** The Tenderer must submit Appendix II in commercial envelope with superscription of the material. **Envelop 1 and 2 should be enclosed in third Envelope with the same superscription.**
- 9.** A Tenderer will not be permitted to withdraw or modify or amend the contents of the tender once submitted.
- 10. In case of poor response from the tenderers, the decision of Professor of Horticulture will be final.**
- 11.** The tender form **without E.M.D. will not be considered at all.**
- 12.** The EMD amount of the bidder will be retained till the finalization of activity.
- 13.** The Tenderer will be informed about the acceptance, if his/her tender is approved by the competent authority.
- 14.** The Specimen of “**Agreement Bond**” will be provided along with office order to the tenderers whose rates are accepted by the Competent authority . **The Tenderer shall have to execute agreement in the prescribed form on Government Court Fee stamp paper costing to Rs. 100/- which should be submitted to this office within 7 days from the date of issue of order.** The agreement received with seal and signature of Tenderers will become Legal Agreement between the Tenderers and the University, which will be binding on both parties.
- 15.** This contract will be governed as per terms and conditions mentioned in the Agreement. Delay in execution within the prescribed time limit, making of facilities not upto the standard specification, and or non-observance or non-acceptance of these terms and conditions by the Tenderers, shall constitute **breach of contract** and the EMD deposited by the tenderer shall be forfeited by the Professor of Horticulture.
- 16.** The firm who make any undue effort to bring the pressure from outside or from any University authority will be liable for outright rejection. AND WILL BE BLACKLISTED FOR EVER.
- 17. The Professor of Horticulture reserves the right to accept or reject any or all the offers without assigning any reason.**
- 18.** The terms of the supply of the material within one month from the date of issue of the supply order and F.O.R. at Horticulture Section, College of Agriculture, Nagpur.
- 19. On the Basis of Technical feasibility, tender will be accepted.**

**Appendix – I (Part –IV)**  
**“DECLARATION OF THE TENDERER”**

- 1) That I / We \_\_\_\_\_ am / are the authorized nominee(s) of the firm \_\_\_\_\_ hereby submit tender to the University to supply Lab equipments. I am to state that the information provided in the tender form is true and correct
- 2) I / We may be punished as per law for any wrong information, misleading facts provided in the tender form besides rejection of my / our tender.
- 3) In case of any dispute, the Jurisdiction will be Nagpur only.
- 4) I / We have carefully read all terms and conditions of the tender and I solemnly declare that the same are acceptable to me/us and binding on me/us.

Place:

\_\_\_\_\_  
Signature of Tenderer:

Date:

Name of Tenderer : \_\_\_\_\_

Capacity in which signed : \_\_\_\_\_

Full address of the Tenderer : \_\_\_\_\_

With seal & stamp :

(Attach Identity card Xerox) : \_\_\_\_\_

Phone No. : \_\_\_\_\_

Mobile No. : \_\_\_\_\_



(This should be enclosed in envelope No. 2)

## Appendix –II

### TENDER FOR THE SUPPLY OF LAB EQUIPMENTS

#### A. TENDER COST

Sr. No.	Name of Equipment & Make	Specifications	Unit required	Cost
1	Automatic Nitrogen Analyzer	<p><b>Automatic Nitrogen/ Protein Estimation System (ISO 9001:2008 Certified)</b></p> <p><b>A. Automatic Macro Block Digestion System</b></p> <p>Superior Automatic Auto sequencing Twenty Place PC Compatible Macro Block Digestion System (Suitable for plants, soils, water, food &amp; feed, Fertilizers &amp; pesticides samples). Automatic 20 Place Microprocessor based digestion system, Aluminium Block 250ml capacity with temperature controller. Temperature Control Range: Room temperature to 450 ° C, Casted Aluminium Alloy Heaters, Power: 4800 W, 20 Digestion Tubes (Macro) 250 ml, Exhaust Manifold System with teflon adaptors, easy autofix spring clamps, Viton hose for diacid and triacid digestion. Inbuilt digital integrated timer, PC controlled Auto Sequencing features, Microprocessor Allows 25 intelligent memory programs, 12 desirable sequence steps of time /temp. domain, 300 memory segments, Bright Digital Two line LCD Display, Auto alarm for user's attention, Auto power off mode on completion of digestion, Direct USB port for PC/Laptop connectivity with software, Live Schematic process flow feature, Graphical representation of time and temperature gradient, KEL Flow Assembly Suction filter pump for fume removal, Electrical Requirement: 220V/50Hz Ac mains.</p> <p><b>B. Automatic Distillation System</b></p> <p>Fully Auto Run completely Programmable Autosequencing Microprocessor based PC Compatible Touch Screen Distillation System with in-built software with 11 Programmable steps and 100 Predefinable User Storage Auto Sequence Programmes , User friendly large Colour Touch Screen - TFT LCD Display (3.5"), 1024 factory designable screens inclusive of 256 images, 100 predefinable auto sequencing user storage programmes (Standard / Customizable methods), Auto and Manual mode of Operation, Auto calculation of results, Auto sequencing of 11 intelligent programmable steps (Boric acid, Dilution, Dilution Delay, Kmno4 Addition, reaction delay time, alkali addition, reaction delay time for neutralization, steam injection, residue delay time, residue removal, Auto titrator connectivity with delay time feature), High resolution of 320 x 240 pixels, Flow diagram display of auto sequencing steps,</p>	One	

		<p>SD card storage, Data logging, Data table Export to Excel, Auto error indication on error diagnosis, Upgradable Ethernet connectivity, Auto program termination and deactivation of system when system is not in stand by mode and tube not in place, Remote key operation feature for On / OFF, RS 232 interface for PC connectivity with USB converter port, High grade Stainless steel non corrosive steam Generator, Fully Automatic water level monitoring with centrifugal refilling pump &amp; Peristaltic pump for reagents addition. Auto reagent level sensor with indication for Alkali, <math>KMnO_4</math> and Boric acid, Adjustable steam power-10 to 100%, Auto online water saving, Auto aspiration of receiver residue, Autotitrator connectivity, Software driven, Auto intelligent residue waste drains, auto steam power adjustment with microbrilliant distillate control, Auto start and auto stop mechanism, Software compatible with CLASSIC DX VA TS for calculation and reporting of results with builtin formulae.</p> <p>Interconnectivity cable to operate system through PC or Laptop, Provision for direct calculation of results in LCD with user programmable formulae for direct reading of protein / Nitrogen / Available Nitrogen etc. Detect online printer connectivity to distillation system, Includes Data Processing system of following configuration: dual core, 2 GB RAM, 250 GB HDD, DVD Writer, Wifi, etc. Electrical Requirement - 220V/50Hz</p> <p><b>C. Scrubber System :</b></p> <p>Fully Automatic Four Stage Acid Neutralizer Scrubber with micro intelligent micro processor based with digital display of time</p> <p>Stage: 1 - Fume trap condensation, Stage: 2 - Neutralization in water, Stage: 3 - Neutralization in Alkali,</p> <p>Stage: 4 -Dissolution of air free of acid fumes in raw tank water, Digital display of set time and actual time. (Range - 0-99.59 hrs.),Microprocessor based brilliant auto waste disposal with auto drain of tank water after every three consecutive operations. Incorporates LED indication of Drain cycles, low level indication and high level indication, Fill error displays in case inlet water gets choked with auto switch off of system with alarm, Auto shut down of recirculation pump during water filling in the tank, Non corrosive centrifugal suction pump with inbuilt self priming feed pump for water recirculation.</p> <p>Non corrosive submergible pump for drain, Non corrosive submergible pump for condensor water circulation,Alkali container capacity : 2 litres, Water container capacity : 2 litres, Fibre Reinforced plastic Tank of capacity 10 litres, Electrical requirement : 220v/50Hz</p>		
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		<p><b>C. Refrigerated water cooling System :</b>  <b>:Refrigerated Water Cooling Circulating system with digital display of temperature,</b> Refrigerated water circulating system with built in compressor and recirculation, <b>Temperature Indication : Digital display,</b> Compressor Capacity -3/8 HP Kirloskar compressor, Fan-10Watta, 1450 rpm, SS Tank capacity: 10 Liters, Recirculation Pump: Submergible pump Over load protection, <b>Microprocessor based PID Temp. Controller, Temperature Range: 10°C to 20°C,</b> MS powder coating housing, Nipples for inlet, outlet &amp; overflow Drain -1/2 an inch ball valve.: 220v/50Hz Mains.</p> <p><b>D. Titration System:</b>  : Superior Automatic pH based Titration System with Auto End Point Detection Titration with Software. <b>High Precision Intelligence System. User Friendly Menu Driven Versions. Display help guide to select respective functions. Complete dosing unit with tubes/screw threads titration tip holder and electrode stand rod, etc.</b> Remote Auto control element mouse for additional manual titration. Auto Stirrer with electrical contacts, High Precision glass cylinder made of borosilicate. virtual Play free spindle system for accurate dosing and titration results. Large Background Lighting Display : Matrix LCD with 64 x 128 pixel and background illumination, contrast adjustable using knurled knob Temperature Sensor - Pt 1000, PH range - 0 to 14 PH, <b>Dialogue mode Keyboard Display Indication for active keys help menu for further steps, Automatic pH end point determination., Auto scroll to select end point &amp; indicators., Auto find equivalence point titration, Automatic mV titrations, 10 internally stored methods for various types of titrations., Automatic end point titration to a defined end point., Several Titration Dosing speeds user desired presentable, Incremental dosing with waiting time with inbuilt auto timer, Two bidirectional RS 232 interface, Chart Software Includes PC connectivity cable, documentation through PC, Graphical representation of titration curves, Processing of titration data with necessary formulas. Electrical Connections: 220V/50Hz AC Mains.</b></p>		
2	<b>Spectrophotometre UV-Visble (PC controlled)</b>	Wave length: 190nm – 1100nm Special Bandwidth: 0.5, 1.0,2.0,& 5.0nm Resolution: 0.5nm Stray light : <0.1%T(220nm, NaI; 340NaNo2), >=2.0Abs(KCl,200nm) Wavelength accuracy: 0.3nm Wavelength Reproducibility:0.2nm Photometric system: Double beam monitoring system, Photometric method: Transmittance, Absorbance, energy and concentration, Photometric range: -0.3 -3.00Abs.	One	

		<p>Photometric accuracy: 0.002-0.004 Abs, 0.3%T  Display: 9999---9999  Photometric Noise: 0.001Abs(500nm, 0Abs, 2nm special bandwidth.)  Scanning speed: 1400nm/min.  Baseline flatness: &gt;0.0015Abs(190-1100nm)  Baseline stability: 0.008Abs/h (500nm,0Abs 2nmSpectral bandwidth, 2hrs warm up)  Measurements:  Result printout: Printing of measured data by using any printer with parallel port connection available,  Mainframe: Compact and standalone spectrophotometer mainframe,  Light source: Socket Deuterium lamp and tungsten halogen lamp  Detector: Double beam  Sample chamber: 2 cel holder  Display: LCD320X240 dot matrix  Key pad: touch soft key.  Size: 22"X16"X10"  Weight: 55Lb  Along with all essential accessories  <b>Optional:</b> Peltier Kinetic Test System  <b>Optional:</b> Sipper Flow Through System</p>		
3	<b>FLAME PHOTOMETER</b>	<p>Optical Detection of flame and fail safe operation  Air pressure switch to extinguish flame in absence of air  Auto ignition.  Information :  - Lineariser Module : 478-29-800a  - Missing 589nm Filter (standard)  - Missing burner glass tube</p>	One	
4	<b>Atomic Absorption Spectrophotometer-</b>	<p>PC controlled double beam Atomic Absorption Spectrophotometer with Windows based software for full control of AAS and accessories like Hydride Generator, Graphite Furnace etc.  Double beam optics with background correction and flame emission capability. Asymmetric modulation with 2:1 sample-to-reference ratio for noise reduction. All-reflective system with quartz overcoating on mirrors. Sealed against dust and vapour.  Ebert-Fastie design Monochromator with more than 333mm focal length and 175-900 nm wavelength range. 1800 lines/mm holographic grating with dual blazed profile. Automatic wavelength selection and peaking. Continuously adjustable slit widths between 0.1 and 2.0 nm in 0.1nm increments. Reduced height for furnace work with all slit widths. Automatic setting of slit width and height. Automatic wavelength scanning.  Detector wide range multi-alkali photomultiplier tube.  Capability to analyze eight elements at a time. Elements to be analyzed include Iron, Manganese, Copper, Zinc , Silica, Selenium, Arsenic, Mercury, Lead, Boron, Calcium, Molybdenum etc. Automatic multi element operation, with the next lamp in the sequence</p>	One	

		<p>automatically warm up.</p> <p>Hyper-pulse background corrector taking minimum 200 (50 Hz) or 240 (60 Hz) sample readings per second for correction of fast background peaks. High intensity, long life deuterium arc lamp to provide 175-425nm correction range. Correction to 2.5 total absorbance.</p> <p>Automatic setting of flame type and gas from stored conditions. Programmed ignition and shutdown sequences. Automatic change of flame conditions during automatic multi element analysis. May be programmed to automatically extinguish the flame at the end of an analysis. Safety interlocks on air, acetylene and nitrous oxide pressure, burner presence, burner type, liquid trap level, presence of nebulizer and pressure relief bung, oxidant flow, flame condition and mains power. Ignition is prevented or flame is shut down if fault is detected. Screen to display interlock status.</p> <p>Flame Atomization System with Pre-mix design with solid inert polymer mixing chamber. All-titanium burner construction Nebulizer with platinum-iridium capillary and titanium venturi for resistance to acid attacks. Adjustable sample uptake rate with locking mechanism. Inert impact bead. Interlocked nebulizer bung. Integral liquid trap with liquid level interlock.</p> <p>Performance Guarantee Greater than 0.8 abs for 5 mg/L copper solution with an RSD of less than 0.45% on the same measurement.</p> <p><b>Hydride Generator</b></p> <p>Automatic continuous flow hydride generation system for the analysis of the hydride forming elements like arsenic, selenium etc at parts per billion concentration level. This system should also be able to analyze mercury by the cold vapor technique at parts per billion concentration.</p> <p><b>Local Items</b></p> <p>Air compressor, fume hood, Gas cylinders with regulators for acetylene, nitrous oxide, Argon etc. Desktop latest PC with color laser printer. All accessories required for successful installation of the instrument.</p>		
5	<b>Hot Air Oven-</b>	<p>Double walled construction inner chamber made of st. Steel and exterior G. I. sheets powder coated. The gap between the two walls filled with glass wool insulation.</p> <p>Temperature controlled by thermostat. Supplied with G. I. Wiremesh shelves.</p> <p>Temperature range : 50°C to 250°C accuracy <math>\pm 2^\circ\text{C}</math>, chamber size: 24" x 24" x 36" and no of shelves: 5.</p>	One	
6	<b>B.O.D. Incubator</b>	<p>A microprocessor based auto-tuning type Japanese make PID controller with CE mark.</p> <p>CFC Free Refrigeration System.</p> <p>Printer Interface Facility and PC communication with software.</p> <p>A multiple point (4) temperature scanner with PC</p>	One	

		and printer interface facility. Available in STD and GMP model with volume of 325 ltr. Temperature Range- 5 ° C to 60 ° C Temperature Accuracy- ± 0.2 ° C Model- TB 325 S/G Capacity (CU.FT/Ltrs.)- 12/325 Max. no. of Trays -6		
7	<b>Fully Automatic Autoclave-</b>	1. Controller with time and temperature programmable by user. 2. A backlit alphanumeric two line 32 character LCD display. 3. Low water level, sensor open/short alarms and cut off. 4. Lid is fitted with pressure gauge, safety valve, safety fusible plug (all except #7423 & #7433) manual exhaust valve, vacuum breaker cum purge valve and quick release coupling for online pressure calibration check. 5. Drain valve for easy draining and cleaning, Moulded rubber Gasket and Stainless Steel carrier(s) along with heater cover stand.	One	
8	<b>Orbital Shaking Machine</b>	Inner Chamber S.S. 304 & Outer chamber M.S. powder coated with Plexi glass inner door Variable speed from 20 RPM to 250 RPM Digital display of speed with preset facility Flask capacity: 36	One	
9	<b>Centrifuge Machine High Speed</b>	Bench Top high speed lab centrifuge with digital speedometer, digital timer in the range of 0-59 minutes & Speed regulator. Maximum speed 20000 (without load). K-248 model works on 220 volts 50Hz A.C. See through acrylic lid. Rotor Head are manufactured from speed grade aluminium which can withstand high speed. Speed is controlled through heavy duty variac. Dynamic breaks. Angle Rotor Head Capacity- 24 x 15 ml.	One	
10	<b>Water Distillation Unit – Glass</b>	Out put : 10lit/hrs Conductivity: 1.5-2.00X 10.6S/cm pH : 5.5 -6.0 Distillate quality : Pyrogen free Electrical power: 220/240 Volts, 50-60 Hz, Single phase, 3KW Silica heater Standard flask: Double stage, capacity-10ltr Cooling water required: 1-2l /min Mini Pr. : 3psi Weight: 16 Kg(app)	One	
11	<b>PCR Unit</b>	<b>1)Gradient Thermal Cycler</b> Specifications : QB-96 Standard Thermal Cycler Block Module Satellite Unit with Thermal block for 96x0.2ml tubes Supplied with Desktop PC + Software The QB-96 is a modular high performance Thermal Cycler. The Satellite Module is controlled through an intuitive user friendly Software loaded on a PC It is a flexible network, expandable in single	One	

		<p>Thermal Cycler increments and designed to fulfil the needs of the most demanding Life Science laboratories</p> <p><b>Technical Details</b></p> <p>Temperature range of block, °C 4 to 99 with tube and microplate control algorithms</p> <p>Sample accuracy, °C <math>\pm 0.4</math> (20-99°C) <math>\pm 1</math> (4-20°C)</p> <p>Sample homogeneity, °C <math>\pm 0.4</math> after 15 seconds (30-99°C)</p> <p>Sample volume range, <math>\mu\text{l}</math> 5 to 100</p> <p>Ramping rate, cooling, up to 3.5 °C per second</p> <p>Ramping rate, heating, up to 5 °C per second</p> <p>Sample overshoot, °C &lt; 1</p> <p><b>Thermal Block:</b></p> <p>Block materials Nickel coated aluminium blocks with four rapid response temperature sensors</p> <p>Traceability Calibration using NIST traceable standards</p> <p>Block supplied 96 x 0.2 ml</p> <p><b>User Interfaces:</b></p> <p>User Interfaces: Desktop PC &amp; PCQB Software</p> <p>Communication interfaces 1 x USB</p> <p><b>Pressurised heated lid</b></p> <p>Lid temperature 115°C</p> <p>Lid pressure Low (tube) or high (micro plate)</p> <p><b>Power and dimensions</b></p> <p>Electronic power supply 100V-240V</p> <p>Dimensions (w x d x h), mm 260x280x200</p> <p>Weight , 9 kg</p> <p><b>2) Tips for pipette</b></p> <p><b>3) Research Pipette</b></p> <p><b>4) Minispin Centrifuge (Tinifuge)</b></p> <p>Specification:- speed: 6000/10000rpm fixed</p> <p>Operation temp:- 0-40° C</p> <p><b>5) UV Transilluminator</b></p> <p>World first unique drawer-based transilluminator for workstation personalization. Interchangeable UV and White light drawers</p> <p>Long life filters and lamps</p> <p>Built-in mechanism for 100% UV protection</p> <p>Superior reliability.</p>		
12	<b>Vertical Gel Electrophoresis Unit</b>	<p>Dual plate maxi vertical gel unit ideal for HANDCAST GELS , includes gel running module and cooled gel tank, with build in cooling coil and quick fit tubing, plus lid, 2x (20.5x 20 cm) plane glass plates , 2x (20.5x 20 cm) notched glass plates, 4x1 mm spacers, 2x spacer aligners, 1x dummy plate and 2x 1 mm thick 24 – wells combs, casting based and 2x silicon seals.</p> <p>Gel Size : 20.5 x 20 cm</p>	One	
13	<b>Analytical Balance</b>	<p>Analytical Balance</p> <p>Capacity :220 gm</p> <p>Accuracy: minimum 0.1 mg.</p> <p>Calibration build in motorized</p>	One	
14	<b>Hand Refractometer</b>	ERMA Japan, Range 0-55, 58-92	One	
15	<b>Laminar Airflow</b>	It provides an ISO Class 5 (Class 100) environment within the work area that complies	One	

		<p>with the IEST recommended practices IEST-RP-CC 002.2.</p> <p>*Perforated stainless steel defuser screen protects the mini pleat HEPA filter and maintains uniform air flow, velocity within the work area.</p> <p>*Easy disassembly for access through a small door.</p> <p>*Filters : aluminum framed microbial treated high efficiency particulate air mini- pleat (HEPA) filter, with a minimum efficiency of 99.995 % at 0.3 micron.</p> <p>* Prefilter : washable type pleated prefilter FRP body frame PU coated</p> <p>* Construction : models available in all stainless steel 304 construction</p> <p>* Air flow : 90 FPM (0.45 m/s) 10 FPM (0.05 m/s) average velocity measured 6 in . (150 mm) from the diffuser screen. Uniformity 20% of average are better.</p> <p>*Noise level : 60 <math>\pm</math> 5 DB measured at 1 mt from filter face.</p> <p>* Motor/ Blower Assembly : A godrej make variable split motor mounted on PU coated FRP blowers with black gloss coated aluminium impellers which is spring mouted and dianamically balanced.</p> <p>* Options</p> <ol style="list-style-type: none"> <li>1. Electric outlet</li> <li>2. Minihelic pressure differential gauge</li> <li>3. ULPA filter</li> </ol> <p>Model Size (ft) : 4x2</p> <p>External dimensions (inches) : 48x35x58 (LxWxH) appx. (mm) : 1219 x900 x1475</p> <p>Work area dimensions (inches) : 48x 24x 22 (LxWxH) appx. (mm) : 1219 x609 x558</p>		
<b>16</b>	<b>ELISA KIT</b>	Eliza kit for plant (Citrus) virus detection	One	
<b>17</b>	<b>Bottle Washing Machine</b>	Operates on the rotary principles. Upper platform with bottle moves. Stationery washing nozzle manual loading and uploading. Pre-set washing sequences with recirculation arrangements. Two bottle holders in one line for easy loading and unloading. Bottle holders designed to accommodate containers with varying neck diameters. External washing facility. Supplied with two SS tanks (75 lts capacity each) and two SS Monoblock centrifugal pumps, pressure gauges and control panel. SS body to prevent corrosion. One insulated tank with Electric heaters or steam coils.	One	

PLACE :

DATE :

**Signature of Tenderer**  
**Name & Full Address**



(Stamp of Rs. 100/-or of appropriate value)

## Affidavit/Indemnity Bond

My tender for supplying Lab equipments at Horticulture Section has been accepted by the Professor of Horticulture, College of Agriculture, Nagpur

I, Mr. .... Aged, .....

S/O ..... R/o(Address) .....

the supplier, agree to abide by and fulfill all terms and conditions included from page No. **1 to 9** of the tender or in default to forfeit the EMD to the Professor of Horticulture, College of Agriculture, Nagpur subsequent upon failure in supply of material due to default.

I am fully aware that in case of any dispute, the decision of the Professor of Horticulture, College of Agriculture, Nagpur shall be final and binding on me.

Signature

Date \_\_\_\_\_

Full Name \_\_\_\_\_

Address \_\_\_\_\_

Ph. \_\_\_\_\_

## Verification

Verified & signed at Nagpur on this ..... ( the day) ..... (month), 2011

## DEPONENT

I know the deponent

Advocate

In presence of

1. Witness;      Signature \_\_\_\_\_  
                         Name \_\_\_\_\_  
                         Address \_\_\_\_\_

2. Witness:      Signature \_\_\_\_\_  
                         Name \_\_\_\_\_  
                         Address \_\_\_\_\_

Place : Nagpur

Date :

Professor of Horticulture  
College of Agriculture, Nagpur

**CENTRE OF EXCELLENCE FOR CITRUS  
HORTICULTURE SECTION,  
COLLEGE OF AGRICULTURE, NAGPUR  
DR. P.D.K.V. AKOLA**

**SHORT TENDER NOTICE**

No.HS/CEC/Tender GE/ 861/2011

Dated : 9<sup>th</sup> Jan. 2011

**Sealed tenders are invited for purchase of Lab equipments**

Tender Form for Purchase of Lab equipments will be available on payment of Rs. 1000/- in cash between 3 to 5 p.m. on working days from the office of the Professor of Horticulture, College of Agriculture, Nagpur from **11.01.2012 to 10.02.2012** or Tender document can download from website ([www.pdkvacn.ac.in](http://www.pdkvacn.ac.in)) In case of tender documents is downloaded from website in PDF format, the cost of the tender form Rs. 1000/- will be accepted by DD and shall be attached with the offered document, failing which the tender will be summarily rejected. The same tender will be received by **1.00 P.M. till 13.02.2012** and shall be opened at 3.00 P.M. on the same day, if possible.

**Fax : 0712-2554820**

**Ph : 0712-2530685**

**Professor of Horticulture,  
College of Agriculture,  
Nagpur**

**(This should be enclosed in envelope no. 1)**

Price Rs. 1000/-

Tender Sr. No. : \_\_\_\_\_

Issued to : \_\_\_\_\_

Money Receipt No.: \_\_\_\_\_ Date \_\_\_\_\_

Signature of the Cashier with office stamp: \_\_\_\_\_