

Quotation Notice

No. 02/2016

Sealed Quotations are invited by the Principal, College of Agricultural Engineering and Technology, NAU., Dediapada for the Purchase of Soil Water/Farm Machinery Power/Process Food & Renewable Laboratory Instruments/Equipment etc. from the manufacturing company/companies, Dealers/Suppliers of these items. The detail specifications, Terms and conditions of supply are available on www.nau.in. The last date for submission of filled Quotation is **01/08/2016** up to 5:00 p.m. send the quotation by Registered Post/Courier/ with ₹ 200/- quotation fee (not refundable) only in Demand Draft/Cash in favour of "**Principal Polytechnic Agricultural Engineering**" payable at Dediapada. write in Bold letter "Quotation for Soil Water Lab/Farm Machinery/PFE Lab....." on the top of cover and send it to the Principal, College of Agricultural Engineering and Technology, NAU., Parsi Tekra, Dediapada, 393 040 Di. Narmada.

Dediapada
D. 13/07/2016

Principal
College Of Agril. Engg. & Tech.
NAU., Dediapada



College of Agricultural Engineering & Technology

NAU., Dediapada- 393040 Di. Narmada

Farm Machinery Power Equipments

Sr. No.	Items	Specifications	Qty.
1.	Surface Plate with Table	Granite Surface Plate Size: 1000 x 1000 mm Grade: 02 Thickness 150 mm The Table fabricated of heavy angle iron with leveling screws. The overall working height of surface plate with stand and leveling screw will be 900 mm (approx), from floor level. The stands are designed to withstand the weight of the granite surface plates. Plate will be supply with a suitable Rexine Cover to protect both the working surface and side faces of the plate	01
2.	Vernier Height Gauge	Vernier Height Gauge (Only Standard Make) Specification: 0-600mm/24" Resolution: 0.02mm/0.001" Accuracy: ± 0.04 mm Made of stainless steel, With magnifier reading glass, can help to Vernier to read that the number obtain, The main ruler is adjustable, adjustable opposite zero, Carbide tipped scriber and case/cover	01
3.	Gear Models	Gears are to be used for Demonstration purpose of students and made from hard cast iron Spur gear with intermediates, Worm Gear, Helical gear, Epicyclical gear Sun and Planet type, Differential gear, Herringbone gear	02 each
4.	Mechanism Model	1. Four bar Mechanism 2. Slider Crank Mechanism 3. Scotch Yoke Mechanism 4. Hand pump Mechanism 5. Inclined plane apparatus 6. Simple jeep crane apparatus 7. Triangle and polygon of forces apparatus All Mechanism Should be standard for laboratory purpose	01
5.	Cut Section model of Lubrication system of 4 Cylinder Petrol Engine	Standard live working model (Made from Cast Iron) Combination of splash and forced feed lubrication system Size 3 feet x 2 feet and mounted on frame 1.5 feet height Component having cut section of splash trough ,oil deeper scoop, lubrication gear pump, supply line, timing gear fan, piston, cylinder, oil filter etc.	01

6.	RO Water Purifier with Cooler	<p>Type - Hermetically Sealed gas compressor Capacity - 100 lph Cooling Capacity 60 liter Power Consumption - 220 V, 50 Hz Volts Make - Emerson or equivalent Body Make - SS Cooling Temperature - 12° to 18 ° C Pre Filter - 20" 5 Micron Poly Propylene (2 Dia.) Pre Filter - 20" Granulated Activate Shell Carbon (2" Dia.) Carbon Filter - 20" Activated Carbon Block Filter (2 Dia.) Booster Pump - To Pressurize (250 GPD) - 3 Nos. Membrane (300 GPD) - 3 Nos. Post Carbon Filter - 3 Nos. Production Rate - Up to 100 lph Cooling Tank - 60 liter Normal Tank - 40 liter Recovery - App. 45% Automatic with Float Switch</p>	01
7.	Cots/Bed 3' x 6'	<p>૩' x ૬' સાઈઝ (સાગી લાકડામાં) બંને સાઈઝ ૪" x ૧.૫" સાઈઝ ની ઈસમાં ખાંચા પાડી વચ્ચમાં ૨" x ૧.૫" સાઈઝના બે સપોર્ટ લગાવેલ તથા ઈસમાં ઉપરની બાજુ દાંતીમાં ૧૮ mm વોટરપ્રુફ પ્લાયવુડ લગાવેલ માથા તરફ ૧૨" નું બંને બાજુથી ૧ mm ફૂલ સનમાયકા લગાવેલ ૧૮ mm વોટરપ્રુફ પ્લાયવુડનું ખડપું પગ તરફ ૭" નું બંને બાજુથી ૧ mm ફૂલ સનમાયકા લગાવેલ ૧૮ mm વોટરપ્રુફ પ્લાયવુડનું ખડપું ખડપાની ફરતે બોર્ડર પટ્ટી લગાવેલ હોવી જોઈએ ૨" x ૨" ના ૧૬" ઉચાઈના ચાર નંગ ચોરસ પાયા ઈસમાં ખાંચા પાડી ઓછામાં ઓછા બે નંગ નટ-બોલ્ટથી ફીટીંગ કરેલા તેમજ પાયાને નીચેથી સપોર્ટ પટ્ટી મારેલ ઈસ અને ખડપાને ખૂણેથી મેટલના L શોકેટ (પલંગ શોકેટ) સ્ક્રુ અને બોલ્ટથી ફીટીંગ કરેલ પૂર્ણ પલંગને યેલો પોલીશથી ફીનીશ કરેલ હોવા જોઈએ નોંધ: કચેરી કાર્યવાહી સમયે જરૂર જણાયે ભાવ ભરનાર પાર્ટીએ સેમ્પલ પીસ કમીટીને બતાવવાનો રહેશે</p>	50

College of Agricultural Engineering & Technology

NAU., Dediapada- 393040 Di. Narmada

Soil Water Engineering Instruments

Sr. No.	Items	Specifications	Qty.
1.	Reynolds Flow Apparatus	<ol style="list-style-type: none"> 1. Tube: Material Borosilicate Glass 2. Dye Vessel: Material SS, Suitable Capacity 3. Capillary Tube: Material-copper/Stainless Steel 4. Constant Head Water Tank: Capacity 40 Liters 5. Water Circulation: FHP Pump 6. Flow Measurement: Using Measuring Cylinder 7. Sump Tank: Capacity 60 Litres 8. Stop Watch: Electronic 9. Control Panel Comprises of: Standard make, On/Off Switch, Mains Indicator, etc. 	01
2.	Root scanner	<ol style="list-style-type: none"> 1. The system should be compact to measure in-situ living roots in the soil 2. Allows observing root growth and behaviour during an entire growing season 3. Portable, quickly operated and designed to scan living roots in the soil. 4. Linear scanning with no distortion 5. The image should be analyzed with imaging analysis software imaging analysis software with facility to zoom in any area of image to see the details of living roots and dead roots. 6. Measurement option for root length, width etc. and soil particles. 7. Scanner resolution: Up to 25 million pixels (approx.) super high resolution image (approx 500-1000 dpi). 8. Scan Speed: 300 DPI 9. Image Size: 21.6W X 19.6L cm OR more (Approx.) 10. Interface: USB port · 11. Power Supply : Computer USB port/ 12. Standard Clear Tube, Dimensions: 6.4 inner diameter X 105cm length OR custom should available for specific crops/small plants · 13. Scanner Unit Weight: Portable & light weight · 14. Portable, quickly operated and designed to scan living roots in the soil. 15. Linear scanning with no distortion. · 16. Supplied with compatible laptop computer with preloaded MS office software and other root analysis software scanner, scanning software and a laptop computer for field operation, an USB connecting cable, Root image analysis software · 17. Supplied with scanner, a laptop computer for field operation, an USB connecting cable, Root image analysis software. · 18. Auger set with 3” diameter 34” length, 3 standard clear tubes with end caps and manual. 	01

College of Agricultural Engineering & Technology

NAU., Dediapada- 393040 Di. Narmada

Process Food Engineering

Sr. No.	Items	Specifications	Qty.																		
1.	Sieve analysis equipment (Sieve Shaker)	<p>Vibratory Screen Shaker to accommodate 10 screens and one blank bottom pan with tie rod. Digital timer to shut off the bottom, Variable variation speeds can be achieved as per requirement of seed to be cleaned. Complete with electric motor. Economical sieve shaker produce constant, accurate result. For use with coarse materials than 1400 mesh. Frequency control permits a quit and reliable operation. 10 Nos of sieves of sizes: 1.6 mm RH, 2.4 mm RH, 2.8 mm RH, 3.5 mm RH, 4.0 mm RH, 6.0 mm RH, 1.85 mm OH, 2.0 mm OH, 2.25 mm OH and 2.5 mm OH.</p> <p>Specifications:</p> <ul style="list-style-type: none"> Shaking method : Vibration Shaking speed : 130-140 nos/min Motion : 4 modes Timer : Digital, 60 min Material : Steel casting (STEEL PLATE) Control display : Digital with LED display Power source : AC 220V, 50Hz, 1-Phase Size: 350 x460 x 600 (approx). Weight : 25 kg (approx) 	01																		
2.	Hammer Mill	<p>Hammer mill consists of Contact parts in SS 304 Fabricated body with grinding Chamber lined with serrated wear plates, balanced rotor with swing hammers & screen classifier, 40 mesh driven by 5 HP, motor & Starter, mounted on a heavy duty structure. Suitable for grits and flour making from cereal grain and course cereal (like wheat, sorghum, millet).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Technical Specifications</th> </tr> </thead> <tbody> <tr> <td style="width: 30%;">Capacity</td> <td>: 50 - 100 kg/hr</td> </tr> <tr> <td>Working</td> <td>: Heavy Duty Continuous type</td> </tr> <tr> <td>Type</td> <td>: Hammer mill type.</td> </tr> <tr> <td>Contact part</td> <td>: All Food contact parts are made of SS 304.</td> </tr> <tr> <td>Sieve</td> <td>: Sieve size 40 mesh</td> </tr> <tr> <td>Feeding</td> <td>: Feeding through Hopper.</td> </tr> <tr> <td>Output</td> <td>: Grits and flour collecting facilities</td> </tr> <tr> <td>Motor</td> <td>: 5 HP, 3 Phase Motor of reputed make</td> </tr> </tbody> </table>	Technical Specifications		Capacity	: 50 - 100 kg/hr	Working	: Heavy Duty Continuous type	Type	: Hammer mill type.	Contact part	: All Food contact parts are made of SS 304.	Sieve	: Sieve size 40 mesh	Feeding	: Feeding through Hopper.	Output	: Grits and flour collecting facilities	Motor	: 5 HP, 3 Phase Motor of reputed make	01
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3.	Destoner	<p>The Machine is used for removal of heavy foreign contaminants like stones, metallic and glass pieces, etc. from grains and seeds of all crops. It works on the principle of weight/gravity separations with stratification by positive pressure fan</p> <ul style="list-style-type: none"> • All steel welded construction. • Compact & rugged design. • Very low power consumption. • Rectangular Vibrating Deck. • Silent and smooth operation. • Dynamically Balanced Fan. <table border="1" data-bbox="528 469 1458 660"> <tr> <td colspan="2">Technical Specifications:</td> </tr> <tr> <td>Capacity (based on wheat)</td> <td>1.5 - 2 TPH</td> </tr> <tr> <td>Size of Deck (mm)</td> <td>890 x 480</td> </tr> <tr> <td>Electric Power</td> <td>0.5 HP</td> </tr> <tr> <td>Overall Size (mm) L x W x H</td> <td>1060 x 782 x 1360</td> </tr> </table>	Technical Specifications:		Capacity (based on wheat)	1.5 - 2 TPH	Size of Deck (mm)	890 x 480	Electric Power	0.5 HP	Overall Size (mm) L x W x H	1060 x 782 x 1360	01
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4.	Cyclone separator	<p>The aspirator separates foreign material from granular product by means of spreading flow over an intake cone. The thin stream of material is introduced to a controlled current of air of that passes through the material as it falls. The air flow is controlled with a sensitive valve which restricts or increases air passage to the centrifugal collector. The sample is poured in receiving hopper. The flow dial is set for desired rate of flow; air slide adjusted and locked; and fan turned on. Flow may be started or stopped instantly. Foreign matter removed from sample is collected within the removable, transparent plastic cup.</p> <p>Salient Features:</p> <ul style="list-style-type: none"> • For separation of light chaffy material from granular product. • Fast & accurate. • Separate detachable transparent collector. • Feed rate controller & Controlled air flow. • Triangular pan. • Large hopper capacity. <table border="1" data-bbox="528 1158 1529 1308"> <tr> <td colspan="2">Technical Specification:</td> </tr> <tr> <td>Size</td> <td>: 51 x 30 x 82.5 cms. (approx.)</td> </tr> <tr> <td>Hopper capacity</td> <td>: 2.2 Kg (approx.) for wheat/rice.</td> </tr> <tr> <td>Motor</td> <td>: Mains operates, 70 W (approx.), 220 V, 50 Hz AC</td> </tr> </table>	Technical Specification:		Size	: 51 x 30 x 82.5 cms. (approx.)	Hopper capacity	: 2.2 Kg (approx.) for wheat/rice.	Motor	: Mains operates, 70 W (approx.), 220 V, 50 Hz AC	01		
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5.	Universal Moisture Meter	Body	: Made of steel	01
		Test cup	: Stainless steel test cup visible while giving pressure	
		Ratchet handle	: Stainless steel	
		Transducer	: High compression unit removes the porosity effect.	
		Minimum sample of grain	: More than 30 cubic centimeter	
		Date & Time	: Can Display & Record Date, Time, Temperature, Humidity & Moisture reading.	
		Data Storage Capacity	: It has memory of 200 readings.	
		Interface	: Recorded data can be transferred to PC or printer through RS232 port & to PC & Smart Phone through Bluetooth provided.	
		Depositor Detail	: Depositor can store his name & Details.	
		Re-calibration with oven	: Can be done on all commodities independently.	
		Range	: 3.5 to 40 %	
		Consistency	: ± 0.2 %	
		Display	: 2 x16 character alphanumeric LCD display.	
		Weight	: 18 Kg(Approx.)	
		Temperature compensation	: Automatic with PT – 100 Temperature sensor	
		Auto Calibration	: Automatic using a simple key operation.	
Averaging	: It can have average of no. of readings			
Recall Facility	: It has facility to recall last reading.			
Keypad	: 9 Keys Membrane keypad.			
Power	: 9 V DC, operated, 230V, 50Hz or type dry cells.			
6.	Digital Hot Wire Anemometer	<ul style="list-style-type: none"> • Records maximum/minimum readings with recall & data hold. • Microprocessor circuit assures maximum possible accuracy, provides special functions and features. • The portable anemometer provides fast, accurate readings, with digital readability. • Thermistor sensor for Temperature measurement, fast response time. • Air balancing, Fans/motors/blowers, Furnace velocity, Refrigerated case and Paint spray booths. • Meter Size (H x W x D):200 mm × 80 mm × 40mm(Approximate) • Weight: 350 g (Approximate) • Accessories: 9V battery. • Accurate air flow range 	01	

7.	Digital Thermo Hygrometer	<p>Salient Features:</p> <ul style="list-style-type: none"> • Interchangeable Probes • Display temperature humidity & time alarm simultaneously • Reading indicated in °C and °F unit selectable. • 16 x 2 line LCD display with switch selectable backlit. • Low power consumptions & high stability & accuracy. • Power : 220 V 50 CPS AC supply and having Inbuilt rechargeable Li – ion battery <p>Specifications:</p> <p>Humidity: Range : 5 % to 95 % RH Resolution : 0.1 % RH Accuracy : ±2 % RH at 25 °C</p> <p>Temperature: Range: - 40 °C to + 60 °C Resolution: 0.1 °C Accuracy: ± 0.5 °C at 25 °C</p>	02
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College of Agricultural Engineering & Technology

NAU., Dediapada- 393040 Di. Narmada

Renewable Energy Engineering

Sr. No.	Items	Specifications	Qty.
1.	Biomass charcoal machine	5 HP Three phase Electric motor, production capacity 150-20 kg/hr, 3 dies, Screw conveyer based, complete installation with foundation cost	01
2.	Greenhouse model	Size: 2 x 4.5 x 1 meter covered with UV stabilized sheet having supporting structure	01
3.	Solar water heater model	Flat plate collector having five components like glass cover, absorber plate with heat transport tubes, Aluminium foil, Glass wool, outer casing, 10 liter water tank with piping and stand	01

Terms and Conditions of the Tender:

1. Rates should be inclusive of all taxes, Octroi, F.O.R. to our Office/Laboratory including installation and demonstration.
2. Duly filled Quotation in sealed envelope should reach the Principal, College of Agricultural Engineering and Technology, NAU., Dediapada by post/courier/register Ad. before **01/08/2016** up to 5:00 p.m. along with ₹ **200/-** quotation fee (not refundable) in Demand Draft/Cash in favour of "**Principal Polytechnic Agricultural Engineering.**" payable at **Dediapada.**
3. Please write on top of envelope "*Quotation for Farm Machinery/ Soil Water Lab/PFE Lab.....*" And mention clearly sender's name and address.
4. Quotations shall be opened as and when Committee will decide.
5. The prescribed configuration is not a mandatory. Higher configuration or latest Model will also be permitted (only selected Item).
6. Lowest price shall not be only criteria since our main emphasis will be on quality of the product quoted.
7. However, if committee deems proper, the negotiation for the final price will be done with the tenderers. First chance will be given to the lowest price in the chronological order.
8. The committee is empowered to reject any or all the Quotations without giving any reason. This shall not be challengeable in the office/court.
9. No correspondence shall be entertained after submission of Quotations.
10. Delivery should be made within a month after receiving supply order at **College of Agricultural Engineering and Technology, Parsi Tekra, Dediapada 393 040, Di. Narmada.**
11. **No advance payment will be made.**
12. No penalty or penal interest will be paid due to delay in payment on account of unforeseeable reasons.
13. Payment will be made only after satisfactory supply and installation/Demonstration.
14. Warranty period against any manufacturing defects of material should be clearly mentioned.
15. Discount if any offered, may please be specified.
16. Authorized dealer should enclose authorization certificate (Attested photocopy) of manufacturing company.
17. Attach the separate sheet mentioning detail specification along with literature/brochures/photos.
18. Provide **the list of your valued customers of the said items in State Agricultural University, ICAR Centers, Other Government and Semi Government Bodies. NGOs etc in India.**
19. In case of dispute, decision of the Registrar, Navsari Agricultural University, Navsari will be final and acceptable to all the parties.
20. The jurisdiction for any legal dispute shall be Navsari District only.