#### Quotation Notice No. 01/2016

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 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 **27/01/2016**up to 5:00 p.m.send the quotationby Registered Post/Courier/Post/ with` **500/-** quotation fee (not refundable) only in Demand Draft/Cash in favour of **"Principal Polytechnic Agricultural Engineering"** payble 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., ParsiTekra, Dediapada, 393 040 Di. Narmada.

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

Dediapada D. 08/01/2016

## College of Agricultural Engineering & Technology NAU.,Dediapada- 393040 Di. Narmada

Farm Machinery Power Equipments				
Sr.	Items	Specifications	Qty	
No.			_	
1.	Carpentry Table	Teakwood Table 6' x 2.5' (પૂર્ણ સાગી લાકડામાં)	05	
		<b>Top size:</b> L6' x W2.5'x T1"on 3" x 1.5" Frame with Center support,		
		Height: 30",		
		Center Partition of water proof 18 mm Plywood with Color/Polish		
		Leg:3" x 3" Square 6 legswith 3" x 1.5" with around andCenter support		
2.	Workshop Table	Teakwood Working Table 6' x 3' (પૂર્ણ સાગી લાકડામાં)	05	
		<b>Top size:</b> L6' x W3'x T1"on 3" x 2" Frame with Center support		
		Height:3'		
		Leg:4" x 4" Square 6 legswith 3" x 1.5" with around andCenter support		
3.	Workshop Rack	12 Locker in 4 row H6' x W4' x D18" made from 18-20swg. Heavy Steel sheet, All parts are finished with high quality	10	
	(Locker)	powder coating		
4.	Bund former / maker	height 20-24 cm and width 20-30 cm	01	

ર્નોધઃ– કારપેન્ટરી ટેબલ અને વર્કશોપ ટેબલ માટે ફકત ઉચ્ચ કક્ષાના સાગી લાકડામાંથી બનાવેલા હોવા જોઈએ તેમજ ટેબલના અલગથી ફોટા રજૂ કરવાના રહેશ



### College of Agricultural Engineering & Technology NAU.,Dediapada- 393040 Di. Narmada

#### Soil Water Engineering Instruments

Sr.	Items	Son water Engineering instruments Specifications	Qty
No.			
1.	Plastic limit apparatus	Porcelain evaporating dish about 120mm dia(25 nos)	04
		SpatulaGround glass plate – 20cm x 15cm (25 nos)	
		Rod – 3mm dia. and about 10cm long (25 nos)	
		Balance, with an accuracy of 0.01g	
2.	Box Sextant	Stanley London 3-inch Brass Sextant with Gear-Driven Control. German Silver scale and vernier readout, magnifying lens,	02
		telescope, and filters. The sextant measures 4 inches tall. Gear-driven adjustment of the elevation angle, and a built-in magnifier	
3.	Jodhpur Permeability	Top cap fitted with water inlet and air release vent.	01
	Apparatus	Dynamic compaction base plate.	
		Perforated base plate, Perforated top plate.	
		Static compaction flanged end plug. 3 cm high.	
		Dolly for cutter.	
		Centering ring for cutter.	
		Wire gauge (4 nos. 200 mesh X 79 mm dia.)	
		Pad of 25 filter papers, (79 mm dia.)	
		Copper wool pad.	
		Plastic funnel.	
		Pinch cocks.	
		Flexible tubing 3 m.	
		Wooden stand for mounting.	
		Permeametermould(capacity 0.3 litres, Cross-sectional area 50 cm square, effective height 6 cm.)Split Collar.	
		2.5 Kg. dynamic RamingTool .	
		Bottom Tank, Constant head tank glass tube with air intake tube.	
		Spare brass tube and rubber bung or vacuum saturation.	
		Set of stand pipes.	
		Core cutter (capacity 0.3 litres, cross-sectional area 50 cm sq., height 6 cm.)	
4.	Core Cutter With	Steel Rammer - With solid mild steel foot 140 mm diameter and 75 mm height with a concentrically screwed 25 mm diameter solid	03
	rammer	mild steel staff. The overall length of the rammer including the foot as well as the staff should be approximately 900 mm. The rammer	
		( foot and staff together) should weigh approximately 9 kg	
		Cylindrical Core-Cutter - of seamless steel tube, 130 mm long and 10 cm internal diameter, with a wall thickness of 3 mm,	
		bevelled at one end	
		Steel Dolley - 2.5 cm high and 10 cm internal diameter with a wall thickness of 7.5 mm with a lip to enable it to be fitted on top of the	
		core-cutter	
		Palette Knife - A convenient size is one having a blade approximately 20 cm long and 3 cm wide	
		Accessories like Palette Knife, Grafting Tool or Spade or Pick Axe etc.	

5.	Electronic Direct	- Max. force forward/reverse: 6 kN	01
	Shear test apparatus	- Speed range: 0.00001 – 12 mm/minute	
	Shear test apparatus	- Different speeds may be selected for forward and reverse drive	
		- Speed/load limitations: none	
		- Displacement movements: 0,03 µm	
		- Rapid approach speed (unloaded): 12 mm/min.	
		- Forward/reverse cycles: programmable up to 20 mm	
		- Number of cycles: no limit to number which may be programmed	
		- Microswitches prevent piston overtravel and dynamometer overload	
		- Leverage system allows applied weights to be amplified by 10, 9, 7.92 and 6.125	
		- A small handwheel serves to sustain/release the vertical load	
		- Supports are provided for transducers, dial gauges and dynamometers.	
		Dimensions (without packing): 1016 x 572 x 1548 mm (h)	
		Weight (without packing): 100 kg	
		Dimensions (packed): 1100 x 700 x 1250 mm (h)	
		Weight (packed): 140 kg.	
6.	Tangent clinometers	1.Cylindrical bubble of 50 x 9 mm conforming to IS : 1632-1960 and having a sensitivity of $20\pm4$ minutes per 2 millimetre run.	04
0.	8	2. The sighting vane marked with tangent graduations from $+0.04$ to $-0.04$ . The graduations being at an interval corresponding to	
		0.005 and each line of 0.02.	
		3. The object vane marked with graduations from $\pm 0.4$ to $\pm 0.4$ . The distance between the extreme graduations of this scale $164 \pm 0.5$	
		mm. The graduations on the scale shall be at an interval corresponding to 0.005 and each line of 0.02.	
		4. The distance from the sighting hole to the inside of object vane of the lowest graduation of - 0.4 on the pitch vane shall be 220 mm.	
7.	Electronic Tensio	Electronic Tensiometer, acrylic head, for measuring soil moisture pressure or water potential, measures directly in HectoPascas or	01
	Meter	mbar., consisting of pressure transducer, shaft, porous ceramic bulb, shaft length approx. 50mm, measurement range 0 – 850 hpa,	
		excitation volt 1 to 15 V DC, complete with display unit for direct measurement.	
8.	FLowProb	1. Range: 0.3-19.9 FPS (0.1-6.1 MPS)	01
0.		2. Accuracy: 0.1 FPS	
		3. Averaging: True digital running average. Updated once per second.	
		4. Display: LCD, Glare and UV Protected	
		5. Datalogger: 30 sets, MIN, MAX, and AVG	
		6. Features: Timer, Low battery warning	
		7. Sensor Type: Protected Turbo-Prop propeller with magnetic pickup.	
		8. Expandable Length: 3.7 to 6 ft (1.1 to 1.8 m) (FP111); 5.5 to 15 ft (1.7 to 4.6 m) (FP211); 2.5 to 5.5 ft (0.76 to 1.7 m) (FP311)	
		9. Materials: Probe: PVC and anodized aluminium with SS water bearing, Computer: ABS/Polycarbonate housing with polyester	
		overlay	
		10. Power: Internal Lithium Battery, Approx 5 year life with typical use, Non-Replaceable	
		11. Operating Temperature: $-4^{\circ}$ to $158^{\circ}$ F (-20° to $70^{\circ}$ C)	
		12. Carrying Case: The Flow Probe is shipped in a padded carrying case.	
		13. Laptop (4 GB RAM, 500 HDD	
L	1		

9.	Cone Pentometer	This apparatus is used for penetration test on a wide variety of materials. It consists of a head support mounted on a vertical rod which can be adjusted for height. A rack and pinion and pointer assembly provides fine adjustment of needle tip to sample and in corporatesaslipping clutch mechanism which make reading of penetration and subsequent resetting a sample and accurate operation. The dial graduate from 0-400 in one tenth millimeter sub division. As per IP 49, 50 & 167 specifications and also per IS 1448 (P: 60) & (P: 93)	02
10.	Density Hydrometer	(IS-3104-1965) or laboratory standard	02
11.	Metacentric Appratus	Size: 300x300 mm (approx.) with a Horizontal guide bar for aiding weight and removable strips, graduated arc with pointer with moveable hanger and set of weights water Tank Size: 550 x 500x 400 mm (approx.), front window of tank: Made of Glass/Perspex, Instruction Manual, Tanks Material: Stainless Steel	01



# College of Agricultural Engineering & Technology NAU.,Dediapada- 393040 Di. Narmada

	Process Food Engineering			
Sr. No.	Items	Specifications	Qty	
1.	Digital Hand- held "Pocket" Refractometer	(Japan Make) Compact Digital Pocket Refractometer for determining Brix concentrations in fruits and beverages, syrups, jams, confectionery products should have following Measurement range Brix : 0.0 to 53.0%	02	
2.	Digital Hand- held "Pocket" Refractometer	(Japan Make) Compact Digital Pocket Refractometer for determining Brix concentrations in fruits and beverages, syrups, jams, confectionery products should have following : Measurement range Brix : 45.0 to 93.0 %	02	
3.	Working Model of Belt Conveyor	A laboratory model Belt conveyor of actual conveyor, complete with FHP motor 230V, singal phase power supply, with all accessories	01	
4.	Working Model of Bucket Conveyor	A laboratory model bucket conveyor, complete with FHP motor 230V, singal phase power supply, with all accessories	01	
5.	Working Model of Screw Conveyor	A laboratory model screw conveyor of actual conveyor ,complete with FHP motor 230V, singal phase power supply, with all accessories.	01	
6.	Universal Digital Moisture Testing Machine	Portable Grain Moisture Meter, working on AC/DC power supply, LCD display with white backlight, multipoint calibration, automatic power off, energy saving, automatic weighing and temperature compensation, moisture mean value calculation, different calibration codes for different grains like soybean, wheat, rapeseed, corn, barley, rice, peanut kernel, sorghum, black sesame, sunflower seed, watermelon seed, cottonseed, etc., complete in carrying case	01	
7.	Mini Oil Expeller	Mini Oil Expeller for pressing most oil seeds, small in size single stage. Crushing capacity : around 20 to 25 kg per hour (depend upon material)Chamber size : approx. 15" x 3.5",Motor : 3 hp with starter	01	
8.	Centrifuge	Table Top General Purpose Centrifuge (Digitally Controlled)      With Solid State speed regulator, Induction lamp and see through acrylic lid, with head puller, rotor heads, swing out or angel head Maximum speed 5000 rpm fitted with digtal speed meter and digital timer	01	

9.	Pyranometer with	Second Class Accurate Precision Pyranometer (Imported) of reputed make, having tech. Details as under :	01
	shading ring	Spectral range : 300 to 2800nm,	
		Sensitivity : 5 to 20 uV/W/M2	
		Impedence : 20 to 200 ohms	
		Response time : less than 7 sec (more than 60%)	
		Field of view : 180 deg.	
		Sensor : Thermopile.	
		The above pyranometer is to be provided with digital readout unit for direct W/m2 display, datalogger for recording time and	
		data (both battery operated), Solar panel with structure for automatic recharging of battery, A precision shading ring for above	
		pyranometer with accessories and levelling, mounting bolts complete with erection of complete set,	
		Also to be provided a precision pryheliometer with automatic single axis tracker and a digital readout unit with single channel	
		datalogger for recording time and data (battery operated) with solar panel and structure for automatic recharging of battery.	



#### 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.
- Duly filled Quotation in sealed envelope should reach the Principal, College of Agricultural Engineering and Technology, NAU., Dediapada by post/courier/register Ad. before 27/01/2016 up to 5:00 p.m. along with`

**500/-** quotation fee (not refundable) only in Demand Draft/Cash in favour of **''Principal Polytechnic** Agricultural Engineering''payble at Dediapada.

- 3. Please write on top of envelope *''Quotation for Farm Machinery/Soil Water Lab/PFE LAab......* ''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.
- 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, ParsiTekra, 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) ofmanufacturing 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.