



**COLLEGE OF AGRICULTURAL ENGINEERING & TECHNOLOGY,  
NAVSARI AGRICULTURAL UNIVERSITY,  
Parsi Tekra, DEDIAPADA- 393040**



**NIT. NO. CAET/01 OF 2019-20**

**TENDER FOR PURCHASE OF LABORATORY  
INSTRUMENTS/MACHINES/EQUIPMENTS**

Principal, College of Agricultural Engineering & Technology, Navsari Agricultural University, Dediapada invites online tender for purchase of **LABORATORY INSTRUMENTS/MACHINES/EQUIPMENTS** for College of Agricultural Engineering & Technology, NAU at Dediapada campus of the University from the eligible/ recognized dealers/ manufacturers. Details can be obtained from the website: [www.nprocure.com](http://www.nprocure.com) during tender period. Bidder can participate in this tender through [www.nprocure.com](http://www.nprocure.com)

The Earnest Money Deposit (EMD) fee, demand draft for the tender fee and the required documentation will have to be uploaded in an electronic format. The original Demand Draft and all related documents will have to be produced / sent to the Principal, College of Agricultural Engineering & Technology, Navsari Agricultural University, Parsi Tekra, Dediapada, Dist. Narmada-393040 by RPAD / Courier / Speed Post. The tender details can be seen on our website [www.nau.in](http://www.nau.in) from Date : 07/09/2019 only for reference purpose.

1	Period for Bid document downloading	<u>07/09/2019 to 30/09/2019</u> upto 18:00 hrs
2	The last date for online tender submission	<u>30/09/2019</u> upto 18:00 hrs
3	Last date for submission of tender fee, EMD and other documents in hard copy by RPAD / Courier / Speed post	<u>03/10/2019</u> upto 18:00 hrs
4	Probable date for verifying physical documents and opening tender	<u>04/10/2019</u> 10:00 hrs
5	Bid validity period	<u>120 Days</u>

Place: Dediapada

Date. 05/09/2019

Principal  
College of Agricultural Engg. & Tech.,  
NAU, Dediapada

## SCHEDULE - 'A'

### TERMS AND CONDITIONS FOR THE PURCHASE OF SCHEDULED ITEMS

#### 1. **General**

1.1 Navsari Agricultural University (hereinafter referred to as “NAU”), for its various Departments (hereinafter referred to as “the purchaser”) for their requirement of **LABORATORY INSTRUMENTS/ MACHINES/EQUIPMENTS** (as mentioned in Tender schedule - B) intend to invite offers for supply and installation of same at College of Agricultural Engineering & Technology, NAU, Parsi Tekra, Dediapada, Dist. Narmada, Gujarat. The scanned copy of the demand draft of the Tender Fee and Earnest Money Deposit (EMD) Fee as well as other relevant documents as per check list of the tender are required to be submit online with the commercial bid on the website [www.au.nprocure.com](http://www.au.nprocure.com) & [www.nprocure.com](http://www.nprocure.com). It is compulsory to submit the original / attested Photocopy of all the documents (except commercial bid), company printed literature / catalogue and other necessary documents physically in hard copy to the Office of the Principal, College of Agricultural Engineering, NAU, Parsi Tekra, Dediapada, Dist. Narmada – 393040, Gujarat State **on or before 19/09/2019 upto 18:00hrs by RPAD/ Courier/ Speed Post. Write “E-Tender for Laboratory Instruments/Machines/Equipments at CAET Dediapada”** on top of the each envelope of sealed tender document.

1.2 The tender fee (Non-refundable) is Rs. 1500/- and Earnest Money Deposit (EMD) Fee (Refundable) as the bidder shall submit 3% of refundable Earnest Money Deposit (EMD) against quoted price (including GST) of each item. Fees and EMD in the form of Demand Draft in favour of "**Principal, CAET AND PAE, Dediapada**" **drawable at SBI (IFSC Code: SBIN0007787) Dediapada** must reach to The Principal, College of Agricultural Engineering & Technology, NAU, Parsi Tekra, Dediapada at above address.

The price shall be including the GST/VAT/other taxes, if any, and transportation charges also. The tenderer has to submit non-refundable Tender Fee.

**Earnest Money Deposit Calculations:** The bidder shall submit 3% of refundable Earnest Money Deposit (EMD) against quoted price (including GST) of each item depending upon the number of Item/s quoted. In the case of EMD less than 3% of the quoted price, the tender will likely to be rejected, even after opening financial bid. EMD of unsuccessful tenderer will be refunded, while EMD of successful tenderer will also be refunded after completion of purchase procedure.

According to Government Notification No. 47/2017, College and Research Center of Navsari Agricultural University is eligible for GST leviable at the rate of 5 per cent on the goods listed in the details. Therefore, leviable GST of 5 % may be considered while quoting price for individual item and the necessary certificate will be issued from the institute/ university.

Further, the Navsari Agricultural University, Navsari is also registered with Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India for availing custom duty exemption.

Tender document without tender fees and EMD will not be counted and accepted. Successful tenderer has to submit **5%** of purchase order value as a Security Deposit and they will be informed at the time of purchase order.

The bidder must have a GST number and PAN number. The proof of evidence to be presented, otherwise their offer will not be accepted. For queries regarding item specifications, contact respective scientist preferably, during office hours as given below.

Provide declaration certificate that **“My/ Our firm has not been banned/ debarred/ black listed by GoG/ GoI” along with tender document.**

- 1.3 Attach certificates/ documents such as GST/ VAT, PAN Card, Bank details, other related documents like Tender fee exemption certificates, if any. All these documents should duly sign and seal and should submit along with tender document.
- 1.4 In case of Original Equipment Manufacturer (OEM), attach the OEM certificate. Authorized dealers can quote their rates provided that they need to attach relevant certificate of authorized dealership issued by OEM recently.
- 1.5 NAU, being an educational institute, therefore, is eligible for exemption of such duty from final payment.
- 1.6 The lowest price is not the criteria and emphasis would be placed on quality and specifications of the material. The NAU has right to reject any or all the offers and invite a fresh tender, if need arises. The NAU further reserves the right of selecting the brand and accepting or otherwise any of the conditions stipulated by tenderer.
- 1.7 The order shall be delivered in maximum of 20-25 days from the date of order as per approved price.
- 1.8 The tenders will be canceled if the above 1.1 to 1.7 conditions are not adhered/ fulfilled.
- 1.9 Authorized dealers can quote their rates provided they attach a certificate of authorized dealership issued from the manufacturer/ principal company. The certificate should be current and valid. Authorized dealers representing the same company/ instrument are free to compete for price, terms, warranty period etc.

In case the vendor is a distributor authorized by an OEM (Original Equipment Manufacturer), the following documents must be additionally provided

- Certificate from OEM that the dealership/channel partnership arrangement with the bidder is in force for a minimum of 2 years.
  - A letter by the OEM stating that they shall honor the supply/ warranty/ AMC commitments independent of continuation of the dealership/ channel partner arrangement with the authorized dealer/channel partner.
  - Irrespective of whether the bidder is an OEM or a distributor authorized by the OEM, the following eligibility criteria must be fulfilled.
  - The bidder should have made a positive operating profit.
  - The bidder should not be blacklisted by any Government or Government entity.
  - The bidder should be in existence for a minimum of three years.
- 1.10 Technical Supporting Documents should contain original Demand Drafts of Tender Fee and Earnest Money Deposit (EMD) Fee. In addition to these, Technical Supporting Documents should also contain the original/ Photocopy of relevant documents as per check list of the tender (except commercial bid), company printed literature/ catalogue, GST/CST registration

certificate. The envelope should be marked as “**Technical Supporting Documents (Technical bid)**”. If bidder fails to submit the Technical Supporting Documents offline within time limit, the commercial bid will be disqualified. Please note that the scan copy of any document uploaded must tally with physical submission of original/ attested Photocopy.

- 1.11** The prices shall be inclusive of all freight, forwarding, transit insurance, installation charges, shipment charges, applicable taxes like Central Sales Tax, GST, Excise Duty, Installation and Commissioning charges, Other prevailing taxes as per government rules & regulations as well as FOR destination. The rate should be quoted per unit as specified in the schedule.
- 1.12** The bid is non-transferable.
- 1.13** Amendment of bidding documents (corrigendum)
- 1.13.1** At any time prior to the deadline for submission of bids, NAU may, for any reason, whether its own initiative or in response to the clarification request by a prospective bidder, modify the bidding documents.
- 1.13.2** The corrigendum will be published on website [www.nau.in](http://www.nau.in).
- 1.13.3** In order to allow prospective bidders reasonable time to take into consideration the amendments while preparing their bids, at its discretion, NAU may extend the deadline for the submission of bids.
- 1.14** Bid currency - Prices shall be quoted in **INDIAN RUPEES ONLY**.
- 1.15** The Earnest Money Deposit shall be forfeited, if
- (i) Bidder withdraws his offer or rates after the opening of the tender.
  - (ii) Bidder modifies rates or any terms and conditions of the original offer.
  - (iii) Modification and Withdrawal of tender bids – Tenderer will not be allowed to withdraw tender in the interval between the deadline for submission of tender and the expiry of the validity. Withdrawal of a tender during this interval will result in the forfeiture of tenderer’s EMD.
- 1.16** The Security Deposit shall be forfeited, if
- (i) Successful bidder fails to supply the items within the delivery period.
  - (ii) Successful bidder fails to provide after sales service and bidder would be permanently blacklisted from NAU.
- 1.17** The items shown in the Schedule-B are subject to requirements and the same may be purchased or may not be purchased without assigning any reason.
- 1.18** The successful bidder shall have to execute the purchase orders placed on any date during the validity of the tender at the rate, terms and conditions of the tender.
- 1.19** All the electronics items should comply to international standards for safety, Electromagnetic Emissions, Electromagnetic Immunity etc.
- 1.20** The Schedule-B shows nomenclature / specifications of the items for purchase of scientific instruments of which the tender has been invited.

- 1.21** NAU may not issue 'C' or 'P' form of sales tax or any other type of tax relaxation form of Government and the tenderers are therefore requested to quote the rates of sales tax or any other taxes payable in absence of such forms/declarations.
- 1.22** Rate should be quoted along with excise duty / custom duty and other taxes. However, NAU is educational institute, therefore, NAU is eligible for exemption of such duty from final payment.
- 1.23** Any offer of special discount after finalization of rate shall disqualify the party for the supply of goods. The prices should not be negotiable. However, the lowest price is not the criteria and emphasis is placed on quality and specifications of the material. The NAU has right to reject any or all the offers and invite fresh quotations if need arise. The NAU further reserves the right of selecting the brand and accepting or otherwise any of the conditions stipulated by tenderer.
- 1.24** If in any case, the quoted item is not available in the market, the successful bidder will have to supply higher version/ replacement of that item in the quoted cost in the same time duration with prior approval of NAU.
- 1.25** The successful bidder will held responsibility for the items sufficiently and properly packed for transport so as to ensure their being free from loss / damage / injury on arrival of destination (NAU Store). The material should be supplied in the original company's packing which shall indicate packing details and other particulars as required under the statutory provisions. Inner and outer packing of boxes / cartons should be of standard design. The final packing of cartons of corrugated boxes shall be complying with IS standards. A packing slip shall indicate clearly and legibly the name of the product, batch number, quantity, date of manufacturer, date of expiry, gross and net weight, and consignee's name & address and other particulars as required. In the event of breakages or loss of items during transit against requisition order the said quantity will have to be replaced by the supplier (Selected tenderer) without any additional charges.
- 1.26** Tender Supporting Documents received late and/or not submitted in the prescribed formats or in the prescribed manner, incomplete in any respect or not accompanied by prescribed documents are liable to be rejected. NAU is not responsible for non-receipt of tender within the specified date and time due to any reason including postal delays.
- 1.27** All rights are reserved with the University Authority to accept or reject any or all the tenders received without assigning any reasons thereof.
- 1.28** **Validity: up to 120 days** from the due date of opening of the tender.
- 1.29** The NAU may if found necessary to do so, place repeat orders against the acceptance of tender within a period of validity, subject to the same terms and conditions originally provided in advertised tender and selected tenderer shall accept the same.

**2. Payment:**

No advance or part payment or payment through bank will be entertained.

**3. Delivery:**

The application for extension of delivery period shall be sent to concerned ordering office of The Principal, College of Agricultural Engineering & Technology, NAU, Parsi Tekra, Dediapada at least 5 days prior expiry of delivery period of each items. The officer in charge,

who is placing the order may grant extension or reject the application and their decision in the matter shall be final and binding to all.

**4 Warranty:**

4.1 Period of Warranty: Comprehensive onsite warranty for 1 year from the date of installation of the items. Please clearly mention the parts, which are not covered under warranty, separately.

4.2 If any instrument(s), properly not working and repetitively fault is found, say twice a week during the warranty period, the bidder shall replace the item with new item without any additional cost to the purchaser.

**5. Dispute:**

In case of any dispute, final decision of The Registrar, Navsari Agricultural University, Navsari – 396 450 will be binding upon all. In case of any dispute arises in respect of this tender, a suit in that behalf shall be subject to Navsari Jurisdiction.

6. NAU reserves the right to change any bid condition of any item even after inviting the bids, with/ without prior notification.

**Please address all queries and correspondence to :**

The Principal,  
College of Agricultural Engineering & Technology,  
NAU, Parsi Tekra, Dediapada, Dist.Narmada – 393 040 (Gujarat)  
Telephone: (02649) 235200  
E-mail: caed@nau.in

I/ We \_\_\_\_\_ (Name of the  
Tenderer/ Proprietor/ Partner/ Director) hereby undertake to supply stores conforming to  
your tender specifications and agree to abide all the terms and conditions of supply  
mentioned in this tender document.

Authorized Signature:

Name:

Designation:

Seal of firm:

**SCHEDULE - 'B'**

**SECTION 1: LIST OF INSTRUMENTS/ MACHINES/ EQUIPMENTS**

Sr. No.	Name of the Item	Required quantity	Specifications
1.	Briquetting Machine (Screw Type)	01	Capacity = 150 to 200 kg/hr; Electric Motor = 3 HP Single Phase; Output Material Size = 20 to 30 mm round type/ cylindrical briquettes; Mould Size = 20 to 30 mm. (Interchanging Pre-ordered Moulds can be attached to achieve the desired output size)
2.	Electronic Tensiometer	05	Accuracy: ± 5%; Length of each tensiometer: 15, 30, 45, 60, 90cm; Quantity: One piece of each length; Range: 0 to -1000 millibars and 0 to -760 mm of Hg The unit should include reservoir, air free gauge chamber and hermetically sealed dial type vacuum gauge with dual scale of millibars.
3.	NDVI Sensor (Green Seeker)	01	<p><b>Model : Plant Pen NDVI-310</b>  <b>Measured Parameter:</b> NDVI = <math>(R740 - R660) / (R740 + R660)</math>  <b>Measuring Light:</b> Internal dual wavelength light source VIS = 635nm, NIR = 760nm for NDVI 310  <b>Detector Wavelength Range:</b> PIN photodiode with 620 to 750 nm bandpass filters for NDVI 310  <b>FluorPen 1.1 Software:</b> Windows 7 or higher  <b>Sample Holder:</b> Mechanical leaf clip  <b>Bios:</b> Upgradeable firmware  <b>Memory Capacity:</b> 16 MB  <b>Communication for data transfer:</b> USB and Bluetooth  <b>Internal Data Logging:</b> Up to 100,000 data points  <b>Display:</b> Graphical display  <b>Keypad:</b> Sealed, 2-key tactile response  <b>Keypad Escape Time:</b> Turns off after 5 minutes of no use  <b>Power Save Mode:</b> Auto sleep  <b>Power Supply:</b> Li-ion rechargeable battery, <b>Battery Capacity:</b> 2000 mAh  <b>Max. Charging Current:</b> 0.5 A  <b>Charging via USB port:</b> PC, power bank, USB charger, etc.  <b>Battery Life:</b> 70 hours typical with full operation  <b>Low Battery Detection:</b> Low battery indication displayed  <b>Size:</b> 135x 65 x 33 mm, <b>Weight:</b> 188 g  <b>Operating Conditions:</b> Temperature: 0 to +55°C, Relative humidity: 0 to 95% (non-condensing)  <b>Storage Conditions:</b>  Temperature: -10 to +60°C  Relative humidity: 0 to 95% (non-condensing)</p>

4.	Data logger (DT 80 model)	01	<p><b>Analog Inputs:</b></p> <ul style="list-style-type: none"> <li>• 5 analog input channels with optionally channel expansion for minimum 20 Nos. should be quoted separately for expansion of number of channels.</li> <li>• Each channel is independent &amp; support: one isolated 3-wire or 4-wire input, or two isolated 2-wire inputs, or three common referenced 2-wire inputs.</li> <li>• The following maximums may apply. <ul style="list-style-type: none"> <li>• 2-wire with common reference terminal: 15 (expandable to 300*)</li> <li>• 2-wire isolated: 10 (expandable to 200*)</li> <li>• 3- and 4-wire isolated: 5 (expandable to 100*)</li> </ul> </li> </ul> <p>*Expansion requires optional</p> <p><b>Sampling:</b></p> <ul style="list-style-type: none"> <li>• Integrates over 50/60 Hz line period for accuracy and noise rejection</li> <li>• Maximum sample speed: 40 Hz; Effective resolution: 18 bits</li> <li>• Linearity: 0.01%; Common mode rejection: &gt; 90dB</li> <li>• Line series mode rejection: &gt; 35dB</li> </ul> <p><b>Digital Input/Outputs:</b> 8 bi-directional channels; Input Type: 8 logic level (max 20/30V); Output Type: 4 with open drain FET (max: 30V, 100mA), 4 with logic output; 1 No. Latching Relay Output</p> <p><b>Input Sensor Support:</b> B, C, D, E, G, J, K, N, R, S, T types Thermocouples</p> <p><b>RTDs:</b> Materials supported: Pt, Ni, Cu; Resistance range: 10Ω to 10MΩ</p> <p><b>Thermistors:</b> Types: YSI 400xx Series; Resistance range: up to 1MΩ</p> <p><b>Strain Gauge &amp; Bridge Sensors:</b> Configurations: ¼, ½ &amp; full bridge; Excitation: voltage or current</p> <p><b>Serial Channels:</b> 4 SDI-12 inputs, shared with digital channels. Each input can support multiple SDI-12 sensors.</p> <p><b>Generic Serial Sensor:</b> Flexible options to allow data to be logged from a wide range of smart sensors and data streams. Available ports: Serial Sensor Port (RS232, RS422, RS485) Host RS232 Port*. Baud rate: 300 to 115,200</p> <p><b>Data Storage:</b></p> <ul style="list-style-type: none"> <li>• <b>Internal Store:</b> Capacity: Minimum 128MB Internal Storage (approx 10,000,000 data points), Larger storage on External USB Stick.</li> <li>• <b>Removable USB store device:</b> Types: compatible with USB 1.1 or USB 2.0 drives, e.g. Flash drive. Capacity: minimum 90,000 data points per megabyte.</li> </ul> <p><b>Online monitoring:</b> FTP for automatic data transfer</p> <p><b>Data logger communication:</b></p> <ol style="list-style-type: none"> <li>a) Ethernet Port Interface: 10BaseT (10Mbps) Protocol: TCP/IP, Modbus (Master &amp; Slave)</li> </ol>
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		<p>b) USB Port Interface: USB 1.1 (virtual COM port) Protocol: ASCII command</p> <p>c) Host RS232 Port</p> <ul style="list-style-type: none"> <li>• Speed: 300 to 115,200 baud (57,600 default)</li> <li>• Flow Control: Hardware (RTS/CTS), Software (XON/XOFF), None</li> <li>• Handshake lines: DCD, DSR, DTR, RTS, CTS</li> <li>• Modem support: auto-answer and dial out</li> <li>• Protocols: ASCII Command, TCP/IP (PPP), Modbus (Master &amp; Slave), Serial Sensor</li> </ul> <p>d) Serial Sensor Port</p> <ul style="list-style-type: none"> <li>• Interface: RS232, RS422, RS485</li> <li>• Speed: 300 to 57,600 Baud</li> <li>• Flow Control: Hardware (RTS/CTS), Software (XON/XOFF), None</li> <li>• Protocols: Modbus (Master &amp; Slave), Serial Sensor</li> </ul> <ul style="list-style-type: none"> <li>• Analysis software should have capability to Combine values from analog, digital and serial sensors Using expressions involving variables and functions.</li> <li>• <b>Functions</b> : An extensive range of Arithmetic, Trigonometric, Relational, Logical and Statistical functions</li> <li>• Dual channel isolation technology</li> <li>• SCADA connection should be possible.</li> </ul> <p><b>Display and Operating Power features:</b></p> <ul style="list-style-type: none"> <li>• Display and Keypad Type: LCD, 2 line by 16 characters, backlight or better.</li> <li>• Display Functions: channel data, alarms, system status.</li> <li>• Keypad: 6 keys for scrolling and function execution.</li> <li>• Status LEDs: 4 for sample, disk, attention and power.</li> <li>• Power Supply should work on AC Power, Internal/ External Battery Power or Solar Power</li> </ul> <p><b>Power Supply:</b> External voltage range: 10 to 30VDC; Internal battery: 6VDC 1.2Ah lead acid; Peak Power: 12W (12VDC 1A)</p> <p><b>Operating Conditions</b> : Powder coated zinc and anodized aluminum Construction; Light Weight preferably &lt;3 kg; (-) 45°C to 70°C temperature range; 85% humidity</p> <p><b>Accessories Included:</b></p> <ul style="list-style-type: none"> <li>• CEM-20 Expansion module</li> <li>• Powder coated outer casing for field installation (For data logger with two expansion modules)</li> <li>• High configuration desktop computer for data storage and analysis</li> <li>• Good quality small screw driver for sensor connection</li> <li>• Resource CD: includes software, video training and user manual.</li> </ul>
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			<ul style="list-style-type: none"> <li>• Comms cable: USB cable</li> <li>• Line adaptor: 110/240VAC to 15VDC, 800mA</li> </ul>
5.	Coshocton wheel runoff sampler	01	<ul style="list-style-type: none"> <li>• H Flume=30 cm, H Flume=45 cm,</li> <li>• Coshocton Wheel= 60 cm, Coshocton Wheel= 90 cm,</li> <li>• Stand for installation of Coshocton Wheel= 90 cm and 60 cm</li> </ul>
6.	General Cycle Air conditioning Test Rig	01	Hermitically sealed compressor (1 ton Capacity), Expansion device (Capillary Tube compatible capacity), Condenser (Air cooled compatible to 1 Ton compressor), Single phase - 220V AC, Pressure gauge - 2 Nose, Frequency - 50 Hz, Evaporator made of copper tube and aluminum fins fitted with compatible capacity fan, Overload and over current protection for compressor with time delay circuit, Digital temperature controller (0-119.9°C), Digital temperature indicator – 0 to 199.9°C with multi-channel switch, Temperature Sensors: RTD PT-100 type, Standard make On/Off switch, Mains Indicator etc.
7.	Simple Cloud and pour point apparatus	01	Steel body, Bath volume - 5 litre, Slot hole - two slot four hole, Slot power - 350W × 2 (700W), Frequency - 50Hz
8.	Darcy Apparatus	02	<p><b>Test Section:</b> Material : Stainless Steel; Diameter : 120 mm (Approx.), Height : 500 (Approx.);</p> <p><b>Water Circulation:</b> FHP Pump;</p> <p><b>Flow Measurement:</b> Using Measuring Tank Capacity 25 liters (Approx.)</p> <p><b>Tank material:</b> Stainless Steel; Sump Tank : Capacity 50 liters;</p> <p><b>Control Panel:</b> Standard make On/Off Switches/Starter, Mains Indicator etc.; Electronic Stop Watch; Instruction Manual</p>
9.	Orifice and Mouthpiece Apparatus	01	<ol style="list-style-type: none"> <li>1. Sump tank: Made up of PVC resist corrosion</li> <li>2. Capacity: 100 Ltr. (Approx.)</li> <li>3. Mono-block pump: 1-phase 0.5 HP</li> <li>4. Measuring Tank: 25 Litres</li> <li>5. Constant Head Tank: 20 Litres (Approx), Material: PVC</li> <li>6. Set of Orifice: I.D. 8 mm</li> <li>7. Convergent Divergent Mouthpieces: L/D 4 / 1 , material : Aluminium</li> <li>8. X-Y- Arrangement: Range: 0 - 500 mm</li> <li>9. Supporting stand structure for the equipment</li> <li>10. Piping: PVC piping with valves</li> <li>11. Digital stop watch</li> </ol>
10.	Abel's flash point apparatus	01	IP-33-IP-170 with oil test jet electric heating with energy regulator control and temperature control by digital temperature controller and indicator Accuracy: +/-0.50C Stirring Speed: 90-120 rpm and 250 rpm.

			Dual speed: Deluxe model Display: Led Numeric
11.	Models of farm equipment <ul style="list-style-type: none"> <li>• Furrow openers shoe, shovel, single disc, double disc</li> <li>• Seed metering mechanism: fluted roller, internal double run, brush feed, star wheel</li> <li>• Cutter bar cut section</li> <li>• Tangential flow thresher</li> <li>• Axial flow thresher</li> <li>• Sprayer nozzles hollow cone, solid cone and fan type</li> </ul>	01	Working element or Actual models with showing labeled name of parts
12.	Vacuum packaging machine	01	High quality <b>Stainless Steel Vacuum Packing Machine</b> , these machines is mainly used for packing meat products, sea food, bean-curd products and food processed products. These machines are easy to maintain, conserve electricity, durable and heat resistant. <ul style="list-style-type: none"> <li>• Material: Stainless Steel</li> <li>• Sealing Size: 20” - 5 mm</li> <li>• Pump: 250 ltrs</li> <li>• Motor: 0.5 hp</li> <li>• PLC timer</li> <li>• Sealing Length: 20"</li> </ul>
13.	General Cycle Water cooler Test Rig	01	Emerson Copland/ Tecumseh India Hermetically sealed compressor (1.5 HP Capacity), Condenser material copper tube air cooled, expansion device (capillary tube and filter/ Dire), 2 Nos. for high and low pressure gauge, 4 Nos. hand set service valves, Evaporator (SS tank 30 liter capacity with copper & soldering), Refrigerant (Freon 134a), 20 litres cooling capacity, suitable for compressor capacity digital Rotameter to measure the flow of liquid refrigerant gas, MCB (suitable for unit), Voltmeter digital type 1 Nos., Amp. Meter Digital type 1 Nos., Energy Meter for Compressor input., Switches Indication Lights etc., Digital Temperature Indicator: 1 Nos., Temperature Sensor (Thermocouple) : 4 Nos., AC Supply Single Phase 220 Volts 50Hz. The equipment is mounted on a MS Powder Coated base plate with control panel.
14.	Fuel Cell Model and Testing Kit	01	<b>Pressure:</b> Maximum Backpressure 60 psig (2.3 Bar) <b>Flow Accuracy:</b> 1.5% of Full Scale <b>Fluid Connections:</b> Tubing Connectors™1/4” Swagelok <b>Electrical Requirements:</b> 110 VAC 5A (or 220 VAC 2.5A) <b>Versatile Electronic Load (0.1 – 400 Watt)</b>

			Constant Current and Constant Voltage mode Dual load channels (3V/100A and 20V/20A) cover the load profile over micro fuel cells, single cells, and fuel cell stacks
15.	Cup Counter Anemometer	01	Powder coated copper cups, gunmetal casting body, mechanical counter and stainless steels, Mechanical Counter of the range 0 to 9999.9 km. Measuring wind velocity
16.	Multi Channel Temperature Scanner	01	Multi channels with 16 T type thermocouples and/or 16 PT 100 sensors, input various inputs, 7 segment with one/two decimal LED/ LCD display, alarm outputs: 1 to 2 common relay output, complete unit, 9 VDC battery operated. Light weight and handy instrument.
17.	Cut section model of hydraulic system	01	All hydraulic system components piston, ram cylinder, oil gallery, three point linkage system ,control valve, Cut section model of hydraulic brake system , Disc and drum type , mounted on MS frame .
18.	Inclined plate planter	01	7 row Inclined plate seed metering mechanism with fertilizer box shoe type furrow opener suitable for sowing maize, cotton, ground nut etc with frame suitable to attach three point linkage system.



# NAVSARI AGRICULTURAL UNIVERSITY

## TENDER

### FOR THE PURCHASE OF LABORATORY INSTRUMENTS/MACHINES/EQUIPMENTS

BY



**College of Agricultural Engineering & Technology**  
**Navsari Agricultural University,**  
**Parsi Tekra, Dediapada, Dist. Narmada – 393 040 (GUJARAT)**  
**Telephone: 02649-235200,**  
**E-mail: caed@nau.in**

<b><u>BID REFERENCE</u></b>	
Period for Bid document downloading	: <u>07/09/2019</u> to <u>30/09/2019</u> upto 18:00 hrs
The last date for online tender submission	: <u>30/09/2019</u> upto 18:00 hrs
Last date for Physical submission of Tender Fee, EMD, other relevant documents in hard copy as per check list of the tender as well as company printed literature/ catalogue and other necessary documents by RPAD/Courier/Speed Post	: <u>03/10/2019</u> upto 18:00 hrs in the office of the Principal, College of Agricultural Engineering & Technology, NAU, Parsi Tekra, Dediapada, Dist. Narmada – 393 040, Gujarat
Probable date for opening of primary Bid and verifying physically submitted documents	: <u>04/10/2019</u> 10:00 hrs
Probable date for opening of commercial bid	:
Bid validity period	: <u>120 Days</u>

From,

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

To,  
Principal,  
College of Agricultural Engineering & Technology  
Navsari Agricultural University,  
Parsi Tekra, Dediapada,  
Dist. Narmada – 393 040, Gujarat

**Sub: Tender for Purchase of LABORATORY INSTRUMENTS/MACHINES/EQUIPMENTS**

Sir,

I/We hereby submit the offer (duly filled) in response to the advertisement/tender notice for **LABORATORY INSTRUMENTS/MACHINES/EQUIPMENTS** in accordance with the terms and conditions of such supply and declare as under:

I/We hereby offer to supply to Navsari Agricultural University, Navsari in accordance with the terms and conditions, hereto annexed and at the prices given by me/us in commercial section of online tendering.

I/We enclose herewith Demand Draft No. \_\_\_\_\_ dated \_\_\_\_\_ for Rs.1500 (Rupees \_\_\_\_\_ only), towards Tender Fee (Non-refundable) and Demand Draft No. \_\_\_\_\_ dated \_\_\_\_\_ for Rs. \_\_\_\_\_/- (Rupees \_\_\_\_\_ Only), towards 3% of refundable Earnest Money Deposit (EMD) against quoted price (including GST) of each item, in favour of "**Principal, CAET AND PAE, Dediapada**" drawables at SBI (IFSC Code: SBIN0007787) Dediapada.

I/We carefully read and understood and agree to abide by the said terms and conditions set in the Schedule – ‘A’ hereto annexed and the description/ specifications of the scientific instruments and other relevant details as set out in the Schedule – ‘B’ of the tender.

I/We agree to hold this **offer open till 120 days** from the date of due date of opening of the tender.

I/We agree that in case of dispute, if any, the decision of the The Navsari Agricultural University, Navsari – 396 450 shall be final and binding upon me/us.

Signature of Tenderer  
(with Stamp, Name and Designation)

## **INSTRUCTIONS TO BIDDERS FOR ONLINE TENDER PARTICIPATION**

- 1) All tender documents can be downloaded free from the website <http://au.nprocure.com> or <http://www.nprocure.com>
- 2) All bids should be submitted online on the website <http://au.nprocure.com> or <http://www.nprocure.com>
- 3) All bids should be digitally signed. For the details, regarding digital signature, certificate and related training involved the below mentioned address should be contacted.

M/s (n) Code Solutions  
A division of GNFC  
301, GNFC Info Tower, Bodakdev,  
Ahmedabad 380054 (Gujarat)  
Tel. : +91 79 26857316 / 17 / 18  
Fax : +91 79 26857321  
Toll Free Number: 1-800-233-1010  
[www.ncodesolutions.com](http://www.ncodesolutions.com)

- 4) The user can get a copy of instructions to online participation from the website <http://au.nprocure.com> or <http://www.nprocure.com>
- 5) The bidders should register on the website through the “New User” link provided at the home page, the registration on the site should not be taken as registration or empanelment or any other form of registration with the tendering authority.
- 6) The application for training and issue of digital signature certificates should be made at least 72 hours in advance to the due date and time of tender submission.
- 7) For all queries regarding use of digital signature certificate should be addressed to personnel in M/s. (n) Code Solutions.
- 8) For all queries regarding tender specifications and any other clauses included in tender should be addressed to personnel in tendering office address provided below:

Office of Principal,  
College of Agricultural Engineering & Technology  
Navsari Agricultural University,  
Parsi Tekra, Dediapada,  
Dist. Narmada – 393 040, Gujarat  
Telephone: (+91) (2649) 235200; Teli-Fax : (+91) (2649) 235200  
E-mail: [caed@nau.in](mailto:caed@nau.in)

**COMPANY DETAIL**

1. Name of supplier / firm : \_\_\_\_\_
2. Complete postal address : \_\_\_\_\_
3. Telephone Number : \_\_\_\_\_
4. FAX Number (if any) : \_\_\_\_\_
5. E-mail address (if any) : \_\_\_\_\_
6. Sales Tax No. : \_\_\_\_\_
7. GST / TIN No. : \_\_\_\_\_
8. Registration No. : \_\_\_\_\_
9. Any other details : \_\_\_\_\_

We agree to abide by the terms and conditions of supply mentioned in this tender document.

Signature of Tenderer  
(With Stamp, Name & Designation)



**CHECK LIST OF THE TENDER SUPPORTING DOCUMENTS AND COMPANY  
DETAIL TO BE SUBMITTED BY TENDERER**

<b>Sr. No.</b>	<b>Document / Certificate</b>	<b>Attached Yes /No</b>
1	Tender Fee: Demand draft of Rs.1500 (Non-Refundable).	
2	EMD: Demand draft of 3% of Earnest Money Deposit (EMD) against quoted price (including GST) of each item (Refundable).	
3	Vendor's Profile/ Company details.	
4	Valid Registration Certificate. (Partnership deed/ Memorandum of article/ Registration of firm etc.).	
5	Last 3 years IT Returns.	
6	Manufacturing License/ Product Permission/ Registration Certificate with C.S.P.O./ C.M.S.O./ S.S.I./ K.V.I.C./ N.S.I.C./ GeM other equivalent authority.	
7	Specification Supporting Documents with catalogue	
8	GST registration certificate	
9	Authority letter by Subsidiary Company	

**Note:** All photocopied documents must be attested with seal and signature.

**DECLARATION**

I/We solemnly declare that we have attached all the documents mentioned here above and mentioned in the tender. It is verified that all the certificates/ permissions/ documents are valid and current as on date and have not been withdrawn/ cancelled by the issuing authority.

I/We further undertake to produce on demand the original certificate/ permission/ document for verification at any stage during the processing of the tender.

I/We also understand that non-compliance of any documents will be treated as non-respective tender and we will lose our claim to participate in the Tender Enquiry automatically and our tender will be liable to reject.

Name of the Firm:

Signature of Tenderer

(With Stamp, Name & Designation)