

BIHAR AGRICULTURAL UNIVERSITY

SABOUR-813210, (BHAGALPUR), BIHAR

Tender Notice No. – 08

Sealed tenders/quotations are invited through registered / speed post / courier services only from Reputed / Registered, Supplier / Dealers / Firms / Company / Enterprises for the supply of **Machinery/Equipments for the Establishment of Farm Machinery Testing Centre at BAU, Sabour**. Sealed envelope containing full information along with supporting documents must reach in the office of the undersigned on or before **17/07/2017 upto 4.00 P.M.** and the same will be opened on **18/07/2017 at 3.00 P.M.** Details are available on www.bausabour.ac.in.

O/I Central Store (H.Q.)

BIHAR AGRICULTURAL UNIVERSITY

SABOUR, BHAGALPUR – 813 210 (BIHAR)

www.bausabour.ac.in



TENDER DOCUMENT FOR

**Supply of Equipments for the Establishment of Farm Machinery Testing
Centre at BAU, Sabour**

O.O. No.08/CS (HQ)/BAU, Sabour Dated: 12/06/2017

BIHAR AGRICULTURAL UNIVERSITY
SABOUR (BHAGALPUR)
PIN: 813 210(BIHAR)
www.bausabour.ac.in

O.O. No.08/CS (HQ)/BAU, Sabour

Dated: 12/06/2017

NOTICE INVITING TENDER/QUOTATION

Sealed tenders/quotations are invited in 2- Bid Systems (Technical Bid & Financial Bid) from Manufacturer/Authorized Distributors or Dealers for supply of **Equipments for the Establishment of Farm Machinery Testing Centre at BAU, Sabour**. The bidders are requested to read the tender document carefully and ensure compliance with all specifications/instructions herein. Non-compliance with specifications/instructions in this document may disqualify the bidders from the tender exercise. BAU, Sabour reserves the right to select the item (in single or multiple units) or to reject any quotation wholly or partly without assigning any reason. Incomplete tenders, amendments and additions to tender after opening or late tenders are liable to be ignored and rejected.

Terms and Conditions:

1. The technical and financial bids should be quoted separately and put in different sealed envelopes marked "Technical bid" or "Financial bid" as applicable. These separate bids envelopes are to be put in an outer envelope which should also be sealed.
2. The bidder must be submitted the OEM or their Authorized Distributor Certificate on their letterhead in the name of tenderer duly mentioned tender reference number along with the technical bid. If not found with technical bid the tender will be summarily rejected.
3. The Vendors must be executed same nature of work in the last 3 years. The details of such institutions and the cost with name of equipments may also be supplied with the bids.
4. The technical and financial bids should be submitted in original. The financial bid should include the cost of main equipments/items and its accessories. If there is any separate cost for installation etc. that should be quoted separately.
5. Each individual sealed envelope as well as the outer envelope should be marked with the following reference on the top left hand corner: **O.O. No.08/CS (HQ)/BAU, Sabour, Dated: 12/06/2017.**

6. The printed literature and catalogue/brochure giving full technical details should be included with the technical bid to verify the specifications quoted in the tender. The bidders should submit copies of suitable documents in support of their reputation, credential and past performance.

7. The rates should be quoted in figures (typed or printed) and cutting should be avoided. The final amount should be in figures as well as in words. If there are cuttings, they should be duly initialed, failing which the bids are liable to be rejected.

8. Any bids received after **4.00 P.M. on 17/07/2017** shall not be considered. Offers received within the stipulated period only are considered. University shall not be responsible for any postal delay. All tender documents should have to be sent through courier, speed post or registered post only.

The postal address for submitting the tenders is:

**Officer-In-Charge
Central Store
Bihar Agricultural University
Sabour, Bhagalpur (Bihar), Pin-813210**

9. The Technical Bids will be opened on **18/07/2017 at 3.00 P.M.** The date & time for opening of Financial Bids will be informed later on to the technically qualified bidders. In case the date mentioned above is declared Government Holiday, the date shall automatically be shifted to next working day.

10. While sending rates, the firm shall give an undertaking to the effect that “the terms/conditions mentioned in the Inquiry Letter/Tender Notice against which the rates are being given are acceptable to the firm”. In case the firms do not give this undertaking, their rates will not be considered.

11. The quantity shown against the item is approximate and may vary as per demand of the University at the time of placing order.

12. All disputes shall be subject to Bhagalpur Jurisdiction only.

13. All tenders in which any of the prescribed conditions is not fulfilled or any condition is put forth by the tenderer shall be summarily rejected.

14. BAU, Sabour reserves the right to cancel the tender at any point of time without assigning any reason.

15. The bidders or their authorized representatives may also be present during the opening of the Technical Bid, if they desire so, at their own expenses.

Note: Price bids of only those bidders will be opened whose technical bids are found suitable by the committee appointed for the purpose. Date and time of opening of price bids will be decided after technical bids have been evaluated by the committee. Information in this regard will be intimated to the technically qualified bidders. In exceptional situation, an authorized committee may negotiate price with the qualified bidder quoting the lowest price before awarding the contract.

16. Tender Cost & Earnest Money Deposit (EMD):

Bidder needs to submit the refundable EMD as mentioned for the items given below and a non-refundable Tender Fee of **Rs. 500=00/- (Five hundred Only)** in the form of a DD (Demand Draft) issued in favour of **Comptroller, Bihar Agricultural University, Sabour, Payable at Sabour**, from any Nationalized Bank, must be enclosed in the envelope containing the financial bid. None submission of EMD will cause the rejection of the tender. All the bidders are required to enclose self-addressed **Rs. 35** stamped envelope.

17. The bidders shall keep their bid valid for minimum 90 days from the date of opening of the financial bid.

18. Manual and documentation: All the manuals necessary for operating and servicing the equipment (including details of electronic circuits) will have to be provided along with the instrument.

19. Bidders should go through the tender terms, conditions and specifications carefully and fill in the attached compliance statement accurately and unambiguously. They should ensure that all the required documents are furnished along with the bid.

Sd./-
Officer-In-Charge
Central Store (HQ)
Bihar Agricultural University,
Sabour, Bhagalpur- 813 210
Annexure I

EQUIPMENT DETAILS

Supply of Equipments for the Establishment of Farm Machinery Testing Centre at BAU, Sabour

S. No.	Name of items	Specifications in Detail	EMD Amount in Rs.
1.	Computerised engine test set-up for testing of engines of self propelled machines	<p>Dynamometer for Testing of Engine of Self Propelled Machine</p> <p>Consists of :</p> <p>A- i) Eddy Current Dynamometer</p> <p>Power Range: Upto 25 KW., Speed Range: Upto 12000 RPM, Torque Range: Upto 95 Nm, Operating Range: 0°C to 60°C</p> <p>ii) Dynamometer Controller: Constant Speed, Constant Torque & Constant excitation control mode.</p> <p>iii) Load Cell – Suitable</p> <p>iv) Digital Torque and Speed Indicator with Integrated Modular DAS.</p> <p>v) Engine: 25 kW@5000 RPM Kirloskar Diesel Engine</p> <p>B) PC Based Automation system with PC (fully automatic) with EDACS 7.1 and a printer.</p> <p>Computer: Suitable to carry out the analysis. Intel core i5 processor, 3.00 GHz or more, Memory: 8 GB, Hard disk drive: 1 TB HDD, Monitor: 21" wide LED TFT, Keyboards, optical mouse, Windows 7/8/8.1 Professional pre loaded. Antivirus (latest version). Preloaded Engine Testing Software for carrying out the analysis of engine test, this software communicates with various systems as per the settings, display various parameters on the monitor, stores the test data to a file and creates reports of test analysis for printing. Facility to view/print observation table and save the acquired data.</p> <p>HP inkjet Colour Printer</p> <p>C) Magnetic water filter/Strainer with 100 Micron filtration.</p> <p>D- i) Pan for Static Calibration with Pan compensatory mass.</p>	40,000=00

		<p>ii) Separate set of calibration weight for static calibration.</p> <p>E) Cardan Shaft Series 1140-XLO (Suitable for Max: 5000 RPM & Min. Compressed Length: 258 mm), Telescopic Adjustment Length: 42 mm Approx., Guard over Cardan Shaft</p> <p>F) Universal Engine Mounting Test Bed for diff. type of engine (With X-Y-Z coordinates adjustable).</p> <p>G) Mechanical Throttle Actuator.</p> <p>H) Header Tank for Fuel – of suitable capacity</p> <p>I) Sensor (PT 100) - Suitably placed and appropriate in numbers</p> <p>J) Barometric Pressure Transmitter - Suitably placed and appropriate in numbers</p> <p>K) Digital Engine Oil Pressure Indicator with Pressure Sensor Accuracy $\pm 0.25\%$ of F.S.D.:</p> <p>L) RH & Ambient Temp. Transmitter – Suitable and appropriate in numbers</p> <p>M) 2-3 KVA inverters with Servo Voltage Stabilizer of 3 KVA or as per voltage requirement to continue the power supply during power fluctuations (Branded).</p> <p>N) Gravimetric Fuel Meter – Suitable</p> <p>The above system should be able to work out the following parameters of an engine, of a self propelled machines/farm machines.</p> <ul style="list-style-type: none"> ➤ Full and part load performance ➤ Volumetric efficiency ➤ Air/Fuel ratio at various loads 	
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		<ul style="list-style-type: none"> ➤ Heat balance sheet and energy studies ➤ Heat release calculation ➤ BHP ➤ IHP and Mechanical Efficiency ➤ Brake thermal efficiency ➤ Indicated thermal efficiency ➤ Specific fuel consumption <p>Installation: Installation, Mounting & Erection, Wiring, Commissioning and necessary civil work Etc. will be done by the supplier.</p> <p>INSTRUCTION MANUAL: Technical manual which describes the equipment and experimental procedure.</p>	
2.	<p>Multi Gas Analyser-For CO,HC,CO₂,O₂, NO_x & SO_x suitable for Petrol Engines</p>	<p>6 Gas Analyzer for Measuring CO, HC, CO₂, O₂, NO & Sox with standard accessories & 24 Column Dot Matrix type Printer.</p> <p>Specification :</p> <p>Range : CO : 0 to 15%, HC : 0 to 30000 ppm as hexane, O₂ : 0 to 25%, CO₂ : 0 to 20%, NO : 0 to 5000 ppm.</p> <p>Data Resolution : CO : ± 0.06%, CO₂ : ± 0.5% , HC : ±12 ppm, O₂ : ± 0.1%</p> <p>Zero Time : Less than 30 seconds.</p> <p>Gas Flow Rate : 500 to 1000 ml / min (read on a built in flow meter)</p> <p>Sample Handling System : SS probe, PU tubing with easily detachable connectors, water separator cum filter, disposable particulate fine filter.</p> <p>Data Communication : RS 232 Interface for Computer connectivity.</p> <p>Operating Temperature : 0 to 50°C</p> <p>Printer Output : CO, O₂, CO₂, in %, HC & NO in ppm.</p> <p>with RPM Inductive Sensor or Acoustic Based Magnetic Tachometer, Oil Temperature (0-150°C).</p> <p>INSTRUCTION MANUAL: Technical</p>	6000=00

		manual which describes the equipment and experimental procedure.	
3.	Smoke Meter with Piezo Sensor to measure the opacity of smoke with standard accessories	<p>Smoke meter to measure the Opacity of Smoke with RPM measured by Piezo method, RS 232, Probe and standard accessories.</p> <p>Specification :</p> <p>Measurement : Smoke density in HSU & K ; RPM & Oil Temperature</p> <p>Range : HSU : 0 – 99.9, RPM : 0 – 6000, Oil Temperature : 0 – 150°C</p> <p>Resolution : HSU : 0.1%, K : 0.01m</p> <p>RPM : 1 (for piezo), 10 (for Battery), Oil Temperature : 1°C</p> <p>Light Source & Detector : LED & Photocell.</p> <p>Display : 16x2 Alphanumeric LCD display with backlight.</p> <p>Warm up Time : < 20 minutes (smoke column heating), Electronics (< 2min).</p> <p>Temperature Sensor : RTD (PT 100) & Thermocouple. Data Communication : RS 232 Interface for Computer connectivity.</p> <p>Printer : 24 Column Dot Matrix type Printer.</p> <p>Operating Temperature : 0 to 50°C.</p> <p>Measuring Chamber Temperature : 80°C</p> <p>INSTRUCTION MANUAL: Technical manual which describes the equipment and experimental procedure.</p>	6000=00
4.	Starter/ Alternator Test bench	<ul style="list-style-type: none"> • Table top model capable of checking both 12 V and 24 V alternators and starter motors. • It is operated at two speeds for testing at lower and higher speeds along with multi groove pulley. • It has in built in AC voltage stabilizer. • It has 110 V series lamp test facility. • It has a heavy duty fast mounting jack. • It has MCBs and fuses for short circuit protection. • It has a vacuum testing arrangement. • A pure DC supply for alternator excitation voltage. 	6000=00

		<ul style="list-style-type: none"> • 12 V and 24 V DC source for testing horns, bulbs, solenoid switches etc. • power / battery option for alternator rotor energisation • through toggle switch with an indication lamp for 12 V and 24 V. • electronic circuit for confirming status of alternator under test in the form of printed circuit boards for alternator rotor excitation. • Alternator loading through heavy duty cam operated rotary switches for withstanding high current for endurance testing. A total of eight steps or more (0 - 120 A) has been provided for alternator loading. • Ohmmeter for resistance check of alternator and starter parts. • Voltmeter for regulator saturation indication and W terminal voltage sensing meter for alternator. • 150 Amps / 1000 V bridge rectifier for 200 Amps testing facility for starters. • built in battery charging facility to charge the batteries through AC / DC source and be capable of indicating battery charging current • capability to measure the condition of solenoids of starter motor by checking its 'pull in voltage', 'pull in current' and 'hold on voltage' <p>INSTRUCTION MANUAL: Technical manual which describes the equipment and experimental procedure.</p>	
5.	Fuel Injection pump test bench (No. of Cylinders 6, Motors 3.7 KW for main drives & 0.7 KW for Fuel supply)	<p>Capable of accurately testing and calibrating diesel fuel injection pumps starting right from 2 cylinders up to 8 cylinders, it can test all kinds of diesel fuel injection pumps listed below :</p> <ol style="list-style-type: none"> 1. Bosch Distributor V.E. Pumps 2. Inline pumps of all types including 'P' type pumps. 3. All types of Lucas / Delphi Rotary pumps including 'DPC' 4. Pumps used in agricultural machines <p>Drive Belt Drive</p>	8000=00

		<p>(Expandable Pulley System with two variable belts)</p> <p>Main Motor 5 H.P. 3 Phase. 415V. 50 Cycles.</p> <p>No. of Cylinders 6 Cylinders.</p> <p>Tachometer Electronic Digital 0-9999 R.P.M. with the accuracy of ± 1 R.P.M.</p> <p>Stroke Counter 100-1200 Strokes (in steps of 100 strokes)</p> <p>Fuel Supply By soundless gear pump.</p> <p>Fuel Pump Motor 1 HP., 3 Phase., 415V., 50 Cycles.</p> <p>Pressure Gauge 0-100 lbs/in² (0-7 kg/cm²) 0-500 lbs/in² (0-35 kg/cm²).</p> <p>Speed Range & Control 100-3000 R.P.M. in both Directions CW & ACW controlled by hand wheel on both right & left side.</p> <p>Test Injectors 6 Nos. Fitted with Calibrating Nozzle set at a standard pressure</p> <p>Phasing Pressure phasing recorded on degree dial</p> <p>Fuel Tank 45-50 litre.</p> <ul style="list-style-type: none"> Comes fitted with all pressure gauges and necessary standard accessories. <p>INSTRUCTION MANUAL: Technical manual which describes the equipment and experimental procedure.</p>	
6.	Variable Compression Ratio Petrol Engine Test Rig	<p>To conduct performance test on variable compression ratio petrol engine with DC generator and to conduct "Motoring Test" to find out Frictional Power.</p> <ul style="list-style-type: none"> Engine: single cylinder 4-S air cooled petrol engine BHP: 2.5 kW 	4000=00

		<ul style="list-style-type: none"> • RPM: 3000 • Compression ratio: 2.5:1 to 8:1 • Load: 2.2 kVA Foot mounted DC generator with 2.5 kW Resistance Load bank. <p>INSTRUCTION MANUAL: Technical manual will be supplied which describes the equipment and experimental procedure.</p>	
7.	Variable Compression Ratio (VCR) Diesel engine Test Rig	<p>To conduct performance test on variable compression ratio diesel engine with eddy current dynamometer and to study the effect of VCR on performance.</p> <ul style="list-style-type: none"> • Engine: single cylinder 4-S air cooled diesel engine • Auxiliary head: a water cooled head with counter piston of cast iron made • Compression ratio: 10:1 to 20:1 • Load: Eddy current dynamometer (5 HP) • Air flow: 400*400*400 mm MS air tank with orifice and manometer • Fuel flow: Glass metering column (burette) with stop cock with stop watch • Calorimeter: Pipe in pipe type with asbestos rope/glass wool lagging insulation • Temperature sensor: "K" Typewith digital indicator & TSS (0-1200 C) • Water flow: Rota meter 0-10 cc/sec for engine and calorimeter cooling (2 nos) • Speed : A non contact type proximity sensor with digital indicator (0-9999 rpm) <p>INSTRUCTION MANUAL: Technical manual which describes the equipment and experimental procedure.</p>	4000=00
8.	Multi Cylinder Petrol Engine Test Rig with Hydraulic Dynamometer for Morse Test	<ul style="list-style-type: none"> • Engine: Multi cylinder 4-S petrol engine of 800 CC developing 10 HP at 2000 rpm • Dynamometer: Hydraulic dynamometer of capacity 20 HP at 2000 rpm. • Fuel measuring device: Fuel tank mounted on sturdy iron stand, 	8000=00

		<p>burette tube, three way cock, connecting tube and a stop clock.</p> <ul style="list-style-type: none"> • Calorimeter: Double pipe heat exchanger to measure the heat loss • Air intake measurement: Air intake reservoir of size 0.4*0.4*0.7 m, with orifice plate, U-tube manometer of 0.3 m height for the measurement of air flow rate. • 12 channel digital temperature indicator with set of thermocouples • Accessories like an ignition switch, a self starter, battery ammeter, a throttle (accelerator) control • All instruments mounted on a suitable panel board. <p>INSTRUCTION MANUAL: Technical manual which describes the equipment and experimental procedure.</p>	
9.	Computerized Universal Testing Machine	<p>It shall be able to perform the:- (a)Tensile (b) Compression (c)Shear (d)Flexural, and (e) Low Cyclic Test, for a wide variety of materials and components.</p> <p>Measuring capacity: 100 kN, measuring range: 0-100 kN, Least count: 5 N, Load range in kN with accuracy of measurement $\pm 1\%$: 2-100, Resolution of piston movement: 0.01 mm, Maximum tensile clearance at fully decended piston position: 50-700 mm, Maximum clearance for compression test: 0-700 mm, Distance between columns: 450 mm, Piston stroke: 150 mm, Max. straining speed at no load: 300 mm/min, Power supply: 3 Phase, 415 V, 50 Hz, AC., HP(Total): 1.5,.</p> <p>Standard accessories: Pair for compression plate dia: 120 mm, Tension Test jaws (For round specimen dia: 10-20 mm, For flat specimen thickness dia: 0-10 mm), Transverse Test (Adjustable roller support width: 150 mm, diameter: 30 mm, With maximum adjustable clearance: 450</p>	10000=00

		<p>mm, Punch top radius: 6-12 mm.</p> <p>Set of foundation bolts and leveling screws.</p> <p>Electronic Extensometer for Computerised version</p> <p>Data Acquisition Panel</p> <p>1.A Microcontroller based data acquisition system for data acquisition & indication.</p> <p>2. LCD displays for displaying load & crosshead travel value.</p> <p>3.Tare load & reset elongation facilities available.</p> <p>Operation Unit: The operation unit shall have the following function: -</p> <p>Test Force Calibration Function</p> <p>Break Detection Function</p> <p>Automatic Read Function For Load Cell Characteristic Value</p> <p>Peak/Break Value Display Function</p> <p>Cycle Figure Display Function</p> <p>Test Condition File Function, minimum 15 files.</p> <p>Real Time S-S Curve Display.</p> <p>Software: The software shall have the following features:</p> <p>The software shall support latest window based operating system.</p> <p>The software shall comprise with the tests:- Tension, Compression, Three-point Bending, Four-point Bending, Peel, Friction.</p> <p>The software shall have real time curve plot.</p> <p>The software shall have data analysis mode.</p> <p>Processing Unit</p> <p>A set of computerized data processing and recording system interfaced with the controller consisting of:</p> <p>Desktop (Windows 10 Home 64, 6th Generation Intel® Core™ i5 processor, 8 GB memory; 1 TB HDD storage, Intel® HD Graphics 530), 2 USB 3.0; 4</p>	
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		<p>USB 2.0, USB optical mouse, USB black keyboard</p> <p>Printer : Colour Laser Jet (Print speed upto 38 ppm)</p> <p>Installation: Installation, Mounting & Erection, Wiring, Commissioning and necessary civil work Etc. will be done by the supplier.</p> <p>INSTRUCTION MANUAL: Technical manual which describes the equipment and experimental procedure.</p>	
10.	Set of meteorological instrument such as		
10.1.1	Digital vernier calliper	Accuracy: ± 0.02 mm, Resolution 0.01 mm, repeatability: 0.01 mm, Display: LCD, Range: 0-150 mm	60=00
10.1.2	Digital vernier calliper	Accuracy: ± 0.02 mm, Resolution 0.01 mm, repeatability: 0.01 mm, Display: LCD, Range: 0-200 mm	
10.1.3	Digital vernier calliper	Accuracy: ± 0.02 mm, Resolution 0.01 mm, repeatability: 0.01 mm, Display: LCD, Range: 0-300 mm	
10.2.1	Digital micrometer: Range 0-150 mm		
10.2.2	Inside micrometer : Range 0-25 mm		
10.2.3	Screw threads micrometer: Range 0-25 mm		
10.2.4	Depth gauge micrometer: Range 0-150 mm		
10.3.1	Bore gauge: Range 50-150 mm, Effective plunger stroke: 1.6 mm		
10.3.2	Bore gauge: Range 100-160 mm, Effective plunger stroke: 1.6 mm		
10.3.3	Bore gauge: Range 160-250 mm, Effective plunger stroke:		

	1.6 mm		
10.3.4	Bore gauge: Range 18-35 mm, Effective plunger stroke: 1.2 mm		
10.3.5	Bore gauge; Range 35-60 mm, Effective plunger stroke: 1.2 mm		
10.4	Spirit level	Used to determine slope angle, tree heights etc Graduated 0+/-90 degrees, 0+/-100% on a stationary arc Vernier reads to 10' Scale pointer incorporates friction thumb lock Includes leather carry case with belt loop	
10.5	Abney level		
11.	Measuring instrument such as		
11.1	Stop watch	Readability : 1/100 sec, with day, date, month, time, alarm & lap function	10=00
11.2	Thermometer (Contact and Non-Contact type)		
11.2.1	Thermometer (contact type)	Temperature range: -200 to +1000 °C Probe compatibility: 2x Type-K connectors Probe response time : 2-3 seconds (TMDT 2-30)	100=00
11.2.2	Thermometer (Non-contact type)	<ul style="list-style-type: none"> • Infrared thermometer for noncontact surface temperature measurement • Measures temperature from -30 to +500 degrees C with an accuracy of + or - 1.5 degree C or + or - 1.5% of the reading from 0 to 500 degrees C • 10:1 infrared distance-to-spot ratio with laser sighting for pinpointing the measurement area <p>Displays the minimum, the maximum, the difference between the two temperatures, and the average temperatures</p>	120=00

11.3	Barometer	Barometer: 10.0 to 999.0 hpa (7.5 to 825.0 mm of Hg) Operating Humidity : Less than 80 % RH Operating Temp.:0 to 50 °C	100=00
11.4	Hygrometer	Range: -10/50 °C or 20/120 °F Least Count/Graduation: 0.5 °C or 1 °F Body Material: ABS Plastic or Wooden	100=00
11.5	Contact type Tachometer:	Range: 0.5 to 19,999 rpm, accuracy: $\pm(0.05\% \text{ rdg} + 1d)$, sampling time: 1 sec > 6 rpm, Resolutions: 0.1 rpm (0.5 to 999.9 rpm): 1rpm > 1000rpm, Features: Large 5 digit LCD display is easy to read, Built in memory recalls last MAX/Min value stored, Auto ranging with 0.05% accuracy, Contact measurements from 0.5 to 19,999 rpm plus linear surface speed measures in ft/min or m/min, Simply contact rotating object with sensor tip and read measure linear surface speeds, Complete with cone tip, flat tip and spare wheel for surface speed measurements, four 1.5 V AA batteries and case	200=00
11.6	Non-contact type Photo tachometers	Specification: Range (rpm): 5 to 99,999, Accuracy: $\pm(0.05\% \text{ rdg} + 1d)$, Sampling Time: 1 sec > 60 rpm, Resolution: 0.1 rpm (0.5 to 999.9 rpm); 1 rpm (>1000rpm) Features: Large 5 digit LCD display is easy to read Built-in memory recalls last MAX/MIN value stored, Auto ranging with 0.05% accuracy, Non contact measurements from 5 to 99,999 rpm, User reflective marker on object to be measured and integral light beam or accurate readings updated point every second, 2 to 6 inches (50 to 150 mm) measurement distance (depending on ambient light) Complete with 23" reflective tape, four AA batteries and case(With essential accessories)	300=00
12.	Equipment for material testing such as		
12.1	Digital Motorized Rockwell cum Brinell Hardness Testing Machine	Test Load in Kgf 60,100,150(Rockwell)187.5, 250 (Brinell) Initial Load in Kgf 10 Max Test Height 290 mm	6000=00

		<p>Depth of throat 133 mm Maximum depth of elevating Screw below Base 295mm Overall all dimension mm 610 mm x 173 mm x 705 mm Net Weight in (Kg) 100 Scale Displayed A,B,C,D,E,F,G,H,K,L,M, P,R,S,V, in Nos 1 to 15 resp. Least Count 0.1 Minor Load setting (Manual setting 0) By bar Graph Indicator(Manual setting) Load control Automatic (Loading, Dwell,Unloading for major loading) Dwell time 1 to 99 seconds selectable Printer Interface Centronics Parallel Port to connect Dot Matrix printer Serial Interface RS-232 Port to connect computer Standard Software Consists of specimen Sr. No., Hardness Values, Limits in CD is provided. Power Supply 220V, Single Phase, 50Hz, AC (3 Wire System)</p> <p>STANDARD ACCESSORIES:-</p> <p>Rockwell Diamond Indenter 1 No Testing Table 50 mm dia 1 No Testing Table 40mm dia with 'V' groove for round jobs dia 6mm to 45 mm 1 No Ball Indenter with T.C Ball dia 1/16" 1 No Ball Indenter with T.C Ball dia 2.5 mm 1 No Ball Indenter with T.C Ball dia 5 mm 1 No Test Block HRC and HRB without NABL 1 No. Each Test Block Hb 2.5/187.5 kgf without NABL 1 no. Allen spanner set 3 Nos. Clamping Device 1 No Brinell Microscope 25 x magnification 1 no. PVC cover for Machine 1 No Rubber below for Elevator Screw 1 No</p>	
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		Instruction Manual 1 Book	
12.2	Hardness testing machine (Non-conducting metals)	Shore hardness tester A or D (Durometer) Suitable for determine the indentation hardness of materials form soft rubber to rigid plastic of pipes, rods, plates etc., Shore A is designed to measure the penetration hardness of rubber, elastomers and other rubber like materials such as neoprene, silicon, vinyl, soft plastics, felt, leather 8V similar materials. Shore D is designed for plastics, Formica, epoxies 8V Plexiglas, etc. Specification: Display 4 Digit 10 mm LCD, Range: 10-90 H, Accuracy $\pm 1\%$, Resolution:0.1 , Measurement principle Laser diffraction, Size range 0.1 μm - 2000 μm Optical models Mie Theory and Fraunhofer Approximation including Patented Multiple Scattering correction, Lens ranges 300mm lens: 0.1 - 900 INSTRUCTION MANUAL: Technical manual which describes the equipment and experimental procedure	2000=00
13	Equipment for mass measurement		
13.1	Digital electronic balance (1kg) Readability : 0.001		100=00
13.2	Platform type balance (200kg) Readability : 0.001		400=00
13.3	Digital balance (0-50 kg)		100=00
14.	Moisture measuring instruments		
14.1	Hot air oven	Double walled outside made of G.I. finished with power coating and inner chamber made of stainless steel. Temperature is controlled by electronics microprocessor based digital temp. indicator cum controller. Temp. range: 50 °C to 250 °C, with accuracy of $\pm 1^\circ\text{C}$. The gap between two walls is filled with glass wool. Size: 60x60x90 cm	600=00
14.2	Digital soil moisture meter	Range: 0 % to 50% moisture on soil, Resolution: 0.1 %, Accuracy: $\pm(5\% +5d)$ F.S., Probe: 2 pins moisture	1000=00

		electrode., Data Hold: Freeze the display reading., Operating Temp. : 0 to 50 %, Operating Humidity: Less than 80 % R.H., Power supply: DC 1.5 V battery (UM4/AAA) x 4 PCs	
14.3	Grain moisture meter	Range: 1.0 to 40.0 % (Depends on Products) Measuring Principal: Dielectric Constant (50 Mhz) Accuracy : S.E.C. - 0.2 to 0.5 % (for less than 20 % moisture content) Capacity : Sample volume - 240 ml Functions: Weight/litter ,memory back up, Auto power off, Average Temperature: With built in thermistor Power Consumption: 240 mW Output: RS-232 C Interface and Digital	600=00
15.	Equipment for pull measurement		
15.1	Dynamometer – spring type (0-1000kg) with digital display unit		3000=00
15.2	Digital load cell with indicator (2 ton)	125 kg, 500 kg, 1 tonnes & 2 tonne with Beam and diaphragm combination. Tension, compression and bi-directional options. Maximum error in axial force component measurement is limited to 0.25% within a 3° angle swept through 360° around the load cell axis. Its various end-fixing options are all inert and easily modified for direct inclusion in mechanical assemblies. Integral 4 to 20mA or ±10V output amplifiers can be fitted as an option. Other specifications Parameter Value Unit Non-linearity - Terminal ±0.05 % RL Hysteresis ±0.05 % RL Creep - 20 minutes ±0.05 % AL Repeatability ±0.02 % RL Rated output - Rationalised 2.0 mV/V Rationalisation tolerance (applies to single direction calibrations) ±0.1 % RL Output symmetry ±0.3 % AO Zero load output ±4 % RL Temperature effect on rated output per °C ±0.002 % AL with capable rod ends and suitable for indicator as specification below: power source 6V sealed lead rechargeable battery bridged supply 5V	4000=00

		dc fixed, calibration check internal shunt resistor, accuracy $\pm 0.02\%$	
16.	Volume fuel consumption measurement		
16.1	Measuring jar set	(Measurement range 5 to 1000 ml, digital display, suitable to fit to fuel supply tube.)	100=00
17.	Soil testing equipment		
17.1	Bulk density apparatus	Ring blade type, 135 mm funnel size, 5 kg/lit sand bottle capacity & ± 5 gms electronic balance calibrations	100=00
17.2	Speedy soil moisture meter (0-25 %)		200=00
17.3	Cone penetrometer (digital recording type)	Measurement range: Range of 2 cm cone: 245 kPa to 2772 kPa (2.5 Kg to 27.5 Kg), Spring strength base area of cone: 490 N/50.0 mm (50Kg/50.0 mm), Outside dimensions: W 340x 150x H330mm(without projection) spring: 490N/ 50mm, Accessories carrying case: 1 Pce., wire brush:1 Pce., spanner: 2 Pce. Cone (2 cm ²): 1 Pce., spindle 30 cm: 1 Pce. Spindle 60 cm: 1Pce., Display (Build-in GPS): GPS measurement system: WGS-84, GPS accuracy: Approx. 10 meter (Slandered: within 10m to 15m), display panel: LCD 20 Columns x 4 line (with backlights), Numbers of memory : 400 data set, serial communication: equipped with 8 Pin connector and serial communication port baud rate: 9600bps, Power supply: AAA alkaline dry cell (4 pcs), Compensation temperature: 0 to 40 °C, Operating Humidity: 0 to 90% (no condensation), internal protection : dust proof, drip proof structure, Accessories: Communication cable for mail measuring unit: 1 pce. Computer communication cable (one Rs 232 C & 1 USB cable: 1 pce, AAA Alkline dry cell: 4 Pce. Software: Supported operating system: Microsoft windows Vista, XP, 2000 or latest:	400=00
17.4	ISI Soil Test Sieve	Sieve Material: Brass or Stainless steel Sieve Diameter : 3”6”8”10”12”200 mm 300 mm Frame: Brass, stainless steel etc.	300=00

		Height (full): 1-3/4" – 2-5/8" Aperture shape: Square Mesh opening/Aperture : 5-500 mesh 10-200 µm	
18.	Workshop and Service tools		
18.1	Platform type jack (500kg)		200=00
18.2	Flat bed trolley (1000kg)	Ergonomic push handle and shelf trolley with a few grips convertible - to flat trolley, single push handle or shelf trolley Folded dimensions 990 x 665 x 430 mm	400=00
18.3	Air compressor (3 HP) with all accessories		1600=00
18.4	Tool kits (spanner, special repair tools, grease guns, torque wrench, etc.)		
18.4.1	13 mm impact drill	Rated power: 650 W with all accessories	
18.4.2	Bosch All-in-One metal 108 piece hand tool kit	(9 screw drivers bits, 6 hexagon socket wrenches, 8 precision bits, 2 adaptors, 1 ratchet hand screwdrivers, 8 allen keys, 3 masonry drill bits, 30 S-plugs, 30 screws, flat-nose pliers, combination pliers, 1 tester, 1 hammer, cutter, measuring tape 3m, 1 insulation tape, 1 torch, 1 wrench, 1 handsaw)	700=00
18.4.3	Taparia S1/4H ¼ inch square drive socket set		
18.4.4	Taparia 802 Screw driver set with Neon bulb		
18.4.5	Taparia Multi Purpose Digital Line Tester		
18.4.6	Taparia HPW12 Heavy Duty Pipe Wrench		
18.4.7	Taparia S14HXL 2/2-inch Square Drive Socket Set		

18.4.8	Taparia BC08 Bolt Cutter		
18.4.9	400 mL cylinder press bar type grease gun		
18.4.10	Torque wrench	(Heavy duty cam and pawl mechanism, Torque range: 20-150 ft. Lbs, reversible, click-type accurate within $\pm 4\%$)	
18.4.11	Digital torque wrench (12" and 38")		
18.4.12	Slip gauge Set Workshop grade		
18.4.13	Threaded ring gauge 20 mm, Go and No Go Bevel protector 300mm Indian/China		
18.4.14	Mitutoya combination set		
18.4.15	Filler gauge 100mm*26 blades, 0.0015"-0.25"		
18.4.16	Radius gauge Range 1.7 mm		
18.4.17	Digital hand Grip Dynamometer -	Measuring range: 5.0 to 100 kgf, Minimum measurement unit: 0.1 kgf Accuracy: ± 2.0 kgf, Display: LCD in 3 digits	500=00
18.4.18	Digital Back & Leg Dynamometer-	Measuring range: 20 to 300 kgf Minimum measurement unit: 0.5 kgf Accuracy: ± 6 kgf, Display: LCD in 4 digits	600=00
18.4.19	Manual Muscle Tester:	Measuring range: 20 to 300 kgf ,Minimum measurement unit: 0.5 kgf , Accuracy: ± 6 kgf , Display: LCD in 4 digits Items displayed: The larger value and each measured value Automatic stop: Approx. 1 min after the final measurement ,Power source: Dry Battery SUM-4 \times 2 Life of each cell: Approx. 100 hr,Service temperature range: 5°C to 35°C.	400=00
18.4.20	Digital Pressure gauge	3,6 10 15 , 20 30, 40 kg/cm ² (With essential accessories)	200=00

18.4.21	Push pull force gauge:	10 mm stroke, 3000 kgf with 2.5 kgf least count, pick hold mode type (With essential accessories)	200=00
18.4.22	Torque pick up with indicator:	Torque sensor: Torque sensor with non contact type data transmission, digital torque data (USB) up to 1000 Nm, Keyway shaft, rotational / static measurement, Bi-directional measurement, Battery operated, Calibration certificate, RS 232, Digital data, speed and power output Torque Indicator: Non Contact type digital indicator above torque sensor, operational temperature range 0 to 45 degree centigrade, battery life 12 hours, auto power off, RS 232 output, Rechargeable battery with battery charger, complete with all accessories, including mounting kit and carrying case. (With essential accessories)	500=00
18.4.23	Harpenden Anthropometer and skinfold calliper:	Direct and accurate reading to the nearest millimetre, range 50 to 570 mm, sliding member operating via miniature ball-bearing, carrying case, complete with straight and recurved branches, a spare counter and beam extension for the measuring of height up to 2 mtrs.	600=00
18.4.24	Bicycle ergometer:	Manually programmable, inbuilt HR rate control programme, breaking power up to 600W, colour screen, inbuilt memory and performance test and computer and USB interface, class I safety features with international standard, weight less than 50 kg and carrying capacity 150 Kg.	1000=00
18.4.25	Rotary Torque Sensor with data logger:	With sensors 100 Nm, 500Nm, 1000Nm, 1500Nm, least count 0.02 to 0.2 Nm, Data logger (with Strain soft software and PC based data logging in excel format) for 4 channels additional accessories like portable data logger 4 channel based battery operated(With essential accessories)	2000=00
18.4.26	Rotary torque transducer: a)	Capacity 10 Nm to 100 Nm, Rated output 2 mv/v, Safe overload 150 % of R.O., Rotational speed 3000 RPM max, Excitation (VDC or VAC) 5 to 11, Bridge resistance 350Ω, Maximum axial force 34 – 405, Radial force 4.5 – 50	2000=00

		<p>b) USB 210 Item FSH 03221, Bridge Excitation 4.5 VDC, Sampling roll 1000 sps, Material resolution 24 bits, On chip memory 1 Kilo Bites, Up to 16 point stored calibration, Basic software FSH 03189 (included), Extended software FSH 03189, Connector plug kit FSH 03320 (Included) : Cutting capacity: 200mm, Round 200 mm, Square 170 mm Saw Blade: 300 X 27 X 0.9, Blade Tension: Mechanical Saw Blade motor: 1 H.P. 960 rpm, Hydraulic Motor: 1 H.P. 1440 rpm (With essential accessories)</p>	
18.4.27	Stationery grinder:	Power input, rpm: 1800, No load speed, rpm: 6500, Full load speed, rpm: 5100, Full load current, amperes :8.3	80=00
18.4.28	Flexible grinder:	Rated voltage: 235, Watts input: 370 W, No load speed for grinding: 11500 rpm, No load speed for milling : 1200 rpm, Full load speed for grinding:6410 rpm, Full load speed for milling: 665 rpm, Full load current, amperes: 1.7	80=00
18.4.29	Portable power drill:	Drilling Diameter in steel:13 mm, Drilling Diameter in aluminum: 20 mm, Drilling Diameter in weed: 32 mm, Power input: 550 W, No load speed: 3000 rpm.	80=00
18.4.30	Hand Shearing Machine:	Cutting Capacity Sheet thickness: 3 mm, Flat bars: 60 X 4, Round bars:9, Length of Blades:400 mm (With essential accessories)	80=00
18.4.31	Motorised Hydraulic Pipe bending machine:	Capacity:1/2" to 3" Pressure in tons 15, Formers of C" class, pipes : 1/2", 3/4", 1", 1.1/4", 1.1/2", 2", 2.1/2" and 3" (With essential accessories)	300=00
18.4.32	Gas cutter with cylinder:	Cutting capacity in mild steel & carbon steels, mm: up to 75, Length of straight cuts, m : 1.8 depend on rail length, Circle Cutting diameter, mm : 75-1200, Cutting speed: 100-900 mm/min, Bevel cutting degree: Up to 45, Power supply: 220/240 V, Frequency : 50 Hz, Gas hose connection, G: 1/4, Fuel gas : Acetylene or LPG, Weight, kg : 9.5 (With essential accessories)	300=00
18.4.33	Hydraulic pressing machine:	Hydraulic Power Press 4 Pillar type, Steel fabricated body, Hand motorized type, with V-block, pressure gauge & hose pipe, Capacity : 50 tonne, Hand operated machine(With essential	300=00

		accessories)	
18.4.34	Bench grinder:	Double ended bench grinder with grinding wheel at each end, complete with rotary switch, wheel guard and tool rests for 50 cycle A.C. supply. Wheel size: 250x25x19.05 MM, H.P. 1, 3000 rpm, phase -1, volts-220/230.	100=00
19	Training setups		
19.1	Training module for CRDI engine. battery. Throttle control is provided on the module to accelerate.	<p>Diesel Engine – CRDI Multi Cylinder, Maximum parts and accessories like cylinder, cylinder head, inlet and Exhaust manifolds, Fuel pump, oil pump, etc. are there to show the internal constructional details</p> <p>Maximum power: 20 HP, Ignition & fuel system: Common rail direct injection. Cooling System: Water Cooling, Fuel Tank: 5 Liter (Maximum), Engine Accessories- Air cleaner, Silencer, Radiator, Battery, Fitted Frame Clutch assembly.</p> <p>Panel board - Ignition switch Amp meter, oil pressure meter, water temp meter warning light, engine stop knob, Alternator with vacuum pump warning light. It will be in running condition with speed controlled from panel board provided with all accessories. Engine is mounted on M.S. sturdy frame.</p> <p>Fault simulation: All the sensors are connected to Data Acquisition Card & LabView based Software to create fault without disturbing connection by using software. With the help of multimeter the sensor voltages are measured using to detect the fault and rectify the faults. <i>Automobile meters are fitted on to the training module along with the printed circuit diagram, to demonstrate engine speed, temperature, fuel pressure, charging light etc.,</i></p> <p>Good working condition engine will be provided with fuel tank and battery. Throttle control is provided on the module to accelerate.</p>	6000=00
19.2	Training module for MPFI petrol engine.	<p>Engine type:- 4- cylinder , MPFI Petrol engine. Maximum power:- 20 HP Fuel supply system :- M.P.F.I . Ignition system:- Spark ignition. Cooling System: Water Cooling, Fuel Tank: 5 Liter (Maximum), Engine Accessories- Air cleaner, Silencer,</p>	6000=00

		<p>Radiator, Battery, Fitted Frame Clutch assembly.</p> <p>Panel board - ignition switch Amp meter, oil pressure meter, water temp meter warning light, engine stop knob, Alternator with vacuum pump warning light. It will be in running condition with speed controlled from panel board provided with all accessories. Engine is mounted on M.S. sturdy frame.</p> <p>Fault simulation: All the sensors are connected to Data Acquisition Card & LabView based Software to create fault without disturbing connection by using software. With the help of multimeter the sensor voltages are measured using to detect the fault and rectify the faults.</p> <p><i>Automobile meters are fitted on to the training module along with the printed circuit diagram, to demonstrate engine speed, temperature, fuel pressure, charging light etc.,</i></p> <p>Good working condition engine with fuel tank and battery. Throttle control is provided on the module to accelerate</p>	
19.3	<p>Training platform for ABS brake system</p>	<p>The trainer is designed to demonstrate the composition and working principle of ABS braking system.</p> <p><i>The front and rear Disc Brake with callipers are coupled to two different three phase motor with electric drives to rotate the front disc and rear disc separately. A brake Pedal along with vacuum booster is connected to the Front calliper system and rear drum brake system, a vacuum pump will be connected to the booster to demonstrate the effect of vacuum in the pedal operation.</i></p> <p><i>The Device is connected with Pressure meters to demonstrate the different pressure at different locations in the brake system.</i></p> <p>All the sensors are connected to Data Acquisition Card & LabView based Software to create fault without disturbing connection by using software.</p> <p>Product Composition:</p>	6000=00

		<ol style="list-style-type: none"> 1. ABS control unit, 2. Motor & Inverter, 3. Wheel speed sensor, 4. Brake pedal, 5. Brake master cylinder, 6. Brake disc, 7. Brake Caliper, 8. Pressure Gauges, 9. Fault control panel, 10. Test Panel, 11. Movable Rack 	
20.	Printer Movers		
20.1	Tractor (38 HP) with all standard accessories	38 HP, 2100 RPM, 3 Cylinders, coolant cooled with overflow, reservoir, Naturally Aspirated. Gearbox: 8 Forward+ 4 reverse, Collar shift. Oil Immersed Disc Brakes. Maximum Lifting Capacity: 1600 kgf at lower link ends, 3 Point Linkage, Automatic Depth& Draft Control, PTO Type, Independent, 6 Splines, 540 @ 2100 ERPM (Standard), 540 @ 1600 ERPM(Economy), 60 Lt fuel tank, Ballast Weight Canopy, Canopy Holder, tow hook, drawbar, wagon Hitch. Wheel Base: 1950-2000mm, Ground Clearance: 390 mm	11,000=00
20.2	Tractor (60 HP) with all standard accessories	60 HP, 2400 RPM, 3 Cylinders, rotary FIP, Coolant cooled with overflow reservoir, Turbo charged, Gear Box: 9 Forward +3 Reverse, collar shift, Hydraulically actuated oil immersed disc brakes. Maximum Lifting Capacity: 1800 kgf at ,lower links ends , 3 point Linkage , Automatic Depth & Draft Control, PTO type: Independent, 6 Splines, 540 @ 2376 ERPM, 65-70 lt Fuel tank, ballast Weight, Canopy, Canopy holder, tow Hook, wagon Hitch, Drawbar, Wheel Base: 2000=2100mm, ground Clearance: 460-480mm	15,000=00
20.3	Power Tiller (14.6 hp) with all standard accessories	Tilling Width: 600mm, Tilling Depth: 150mm, Comfortable seating arrangement 14.6 HP engine, SFC: 260-270 gm/Kw/hr, Fuel tank capacity: 15-16 lt, Clutch: Double disc constant contact, Final transmission: Double chain, Tilling rate: 0.135-0.14 ha/hr, Ground clearance: 170mm (min), speed (km/hr): 6 Forward-1.53to 16.70, 2 Reverse-1.1& 4.212, Rotary speed:	3200=00

		Two, High: 300 RPM, Low: 188 RPM, Rotavator(Nos of tynes): 20	
20.4	Electric motor(7.5hp) with all standard accessories	HP-7.5 Pole-4, RPM-1500, Mounting foot, type- Squirrel Cage Rotor, phase-3	400=00

BAU SABOUR

TENDER FORM

To,

1. The Comptroller
Bihar Agricultural University
Sabour, Bhagalpur (Bihar), Pin-813 210
2. Officer-In-Charge
Central Store
Bihar Agricultural University
Sabour, Bhagalpur (Bihar), Pin-813 210

Subject: Tender Enquiry No.: 08/CS(HQ)/BAU, Sabour dated: 12/06/2017.

Sir,

I have gone through the terms and conditions laid down in the tender documents and accept the same.

I am hereby submitting the technical bid and enclosing the documents as per details given below:

CHECK LIST

S.No.

Name of documents

1. Cost of Tender documents (It downloaded the tender (Document) from University website within NIT schedule)

(DD No/Pay Order _____ date _____ Issuing Bank _____
_____ for Rs. 500.00 (Enclosed along with the technical bid).

2. Details of EMD-TDR/FDR No. _____ date of issue _____

Name & address of Bank issuing DR/FDR _____ amounting to Rs _____ This EMD is being Encl (along with the technical bid).

3. List of procurement agencies of repute to whom the tendered _____ products have been supplied during last twelve month with proof.

4. Authorized dealership/agency/distributor certificate issued by original manufacturer of the equipment/item for preceding two years to show financial status of the tenderer.

5. Attested copies of CST/VAT registration _____

6. Attested copies to PAN (Permanent Account Number) _____

7. Registration certificate of the firm

8. Service Tax Registration Certificate if applicable

9. Audited balance sheet of the firm of the last three years

10. Income tax return copy of the last three years

11. Experience certificate of the last three years.
12. Sales Tax registration Certificate
13. Enclosure of detail technical specification and other required documents
14. Tender Documents duly signed on all pages _____

Certified that each and every page of the tender documents are serially numbered and signed by me.

Yours faithfully,

Nature and Name of the authorized Signatory with seal

Designation

Name of the company (Tenderer)

DETAILS ABOUT TENDERER

(General & Financial)

1. (a) Name of the Tenderer:
- (b) Status of the Tenderer:
- (i) Manufacturer/Importer:
- (ii) Proprietorship:
2. Partnership/Company
Full Postal Address
-
-
-
-
3. Telephone No.:
4. Mobile No.:
5. Fax No.:
6. E-mail Address:
7. Name of the persons who are responsible for conduct of business

SN	Name	Father's/Husband's Name	Age	Residential Address

8. (a) Names of procurement agencies with whom:the tenderer is registered.

(b) Names of procurement agencies to whom:

Items have been supplied during last 12 months:.....

(Copies of supply order not to be enclosed)

DETAILS ON FINANCIAL ASPECTS

9. Furnish the following information with documents:-

(i) Income Tax PAN:

(ii) Central Sales Tax Registration:

(iii) VAT Registration No.:

(iv) Service Tax Registration No.:

10. Name and address of the Billing Agency/Distributor/Dealer, if any

FORMAT OF PRICE BIDS

S.N.	Tender items Sl. No.	Name of the items & Brand	MRP	Offered Rate per unit/each	Tax	Total Rate offered with tax (e + f)

Please Note: -

- 1. Price bids should be typed in the prescribed format only. Photo copy/Xerox Copy/ Duplicate Copy would not be accepted in any condition.**
- 2. Authorized dealership/agency/distributor certificate issued by original manufacturer of the equipment/item should be enclosed**
- 3. Rate of CMC/AMC should be quoted by the vender in a separate format (if applicable).**

DECLARATION

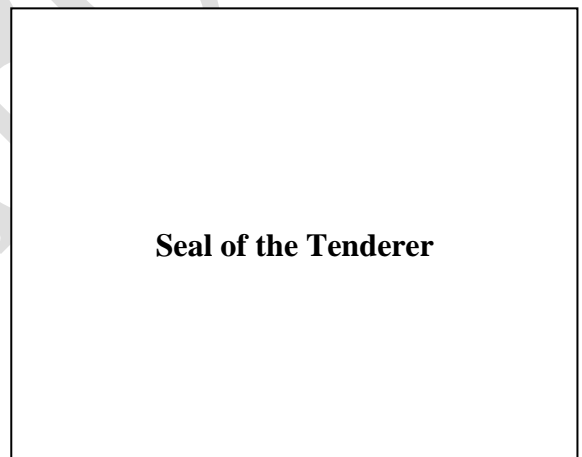
I _____ Prop/Partner/Director of
M/s _____ hereby declare that the information given in this
Tender is true and correct to the best of my knowledge and belief.

**Signature and Name of the
Authorized Signatory**

Designation

Date

Place



**WARNING: Subsequently, if information furnished in this tender found incorrect,
tenderer is liable to be penalized including the Blacklisting.**

SPECIAL TERMS AND CONDITIONS FOR TENDERERS

The following terms and conditions should be complied with during submitting tender:-

1. Sealed Quotation/Tenders are invited in two bid systems.
2. Tenders should be submitted to the O/I Central Store, Bihar Agricultural University, Sabour, Bhagalpur, Bihar, Pin- 813 210 under the sealed cover.
3. The tenderer should quote typed rates in figures as well as in words. The tender should be signed by the tenderer himself/themselves or their authorized agent on his/her/their behalf. In case the tender is signed by the agent the authority letter in favour shall be enclosed with tender documents.
4. The tenderers should take care that the rate and amount are written in such a way that interpolation is not possible. No blank space should be left, which would otherwise make the tender liable for rejection.
5. VAT Registration Clearance Certificate duly attested copy of a Gazetted Officer should also be enclosed.
6. Delivery schedule with definite date of delivery at destination (BAU, Sabour) taking into cognizance of transit facility must be indicated. This contractual delivery date/ period should be inclusive of all the lead time.
7. The tenderer submitting his tender would be deemed to be considered and accepted all the terms and conditions. No enquiries, verbal or written shall be entertained in respect of acceptance or rejection of the tender.
8. The quantity shown in the schedule may be increased or decreased depending upon the actual requirement.
9. This University reserves the right to cancel/ reject in or any part of the tender, which generally do not fulfill the condition stipulated in the tender without assigning any reason.
10. Any action on the part of tenderer to influence anybody of the University will make his/ their tender liable for rejection.
11. The tenderers shall submit the offer in original copy of the tender documents duly signed on each page. Item wise rate indicating units can be offered on letter head of the firm, in case, space printed on financial form is not sufficient.
12. In case of placement of purchase order, the vendor (the tenderer whose tender is accepted) may comment on the purchase order within 10 days from the date of dispatch of purchase order otherwise it will be deemed that offer is acceptable to the vendor. Notwithstanding any other provision, the terms and conditions and any other provision included, in the purchase order will be treated as binding with "Errors & Omissions Expected". However, if the vendor notices of the order, he must bring the same in to the notice of tender/ quotation and seek clarifications within the above stipulated time. Vendor will have to bear the responsibility for failure to take this action.
13. In University may in writing make any revision or change in the purchase order, including additions or deletions from the quantities originally ordered or in the specifications or drawing. If any such revisions/ changes affect the price or delivery, the same shall be subject to the adjustment of price/ delivery, wherever required on a reasonable basis by mutual agreement in writing which should be communicated.

14. The University reserves the right to cancel the purchase order or any part thereof shall be entitled to revise the contract wholly or in a part by written notice the vendor if:-
 - (a) The vendor fails to comply with the terms and conditions of the purchase order including specifications and other technical requirement.
 - (b) The vendor becomes bankrupt or goes into liquidation.
 - (c) The vendor fails to deliver the goods in time and or does not replace the rejected goods promptly.
 - (d) A receiver is appointed for any of the property owned by the vendor.
15. Upon the receipt of the said cancellation notice, the University shall discontinue all works of the purchase order and matters connected with it.
16. Supply order will be issued as per the requirement of the University. The supplier will have to supply ordered materials within the delivery time mentioned in the supply order.
17. Unless otherwise specified in the order, the order price shall remain firm and will not be subject to escalation of any description during the dependency of the order, notwithstanding the change in the cost of material and components he/they may take clearance while the order is under execution even if the execution of the order for any reason whatsoever.
18. The offer of the tenderers shall remain valid for a period of one year from the date of opening of bid.
19. The University may its option, reject such defective materials at the vendor's expense in which event the vendor shall, without any cost to the University and as promptly as possible, remove such materials and furnish and install proper and acceptable material.
20. In the event of delay delivery and/or unsatisfactory manufacturing progress and supply, the University has the right to cancel the purchase order as whole or in part without liability for cancellation charges.
21. Timely delivery as mentioned in purchase order shall be in the essence of the order and no variation shall be permitted except with prior authorization in writing from the University.
22. In the event of delay in making delivery on the part of the vendor, it will be at University discretion to receive delivery with a reduction in price of the article/or equipment.
23. Forced measure shall mean and be limited to the following: -
 - (a) Any war/hostilities
 - (b) Any riot or civil communication
 - (c) Any earthquake, flood, tempest, lighting or other natural physical disaster.
 - (d) Any strike or lock up (Only those exceeding ten continuous days duration) affecting the performance of the vendor's obligation.

The seller shall advise the University by Registered Letter duly certified by local chamber of commerce of statutory authorities the beginning and end of the above caused of delay within 7 days of occurrence and cessation of such forced measure concern. In the event of delay lasting over one month, if arising our caused of force measure, the University reserves the right to cancel the order.
24. No payment shall be made for rejected materials not the tenderer would be entitled to claim for such items.

25. Rejected materials would be removed by the tenderer from the site within two weeks or the date of rejection at their own cost. In case they are not removed they will be auctioned at the risk and responsibility of the suppliers without any further notice.
26. In case of not honoring the supply order, the University will have the right to impose penalty as deemed fit and to resort to make purchase at the suppliers cost and risk and his security deposit may be forfeited in favour of the University cost and risk.
27. Taxes & Levies-Rates of Inclusive of All Taxes. There is no extra payment will be made by the BAU Sabour in this regard. There are no any Forms for tax exemption will be issued by the BAU. Nevertheless, if Road permit/ Suvidha no. is availed by the firm, Entry Tax will be deducted by the BAU from your bill.
28. In the case of non-supply order stores within stipulated time, it will be at the discretion of the University to accept delivery with late delivery clause @ 1% per week maximum to the extent of 10 % of the ordered value for delayed supply.
29. Tenderer hereby agree to all terms and conditions stipulated in tender and undertakes to sign the rate contract or supply order within the given days from the date of order failing which security shall be liable to be forfeited.
30. Disputes, if any, arising between the University and the bidder out of or in connection with the terms and conditions contained herein shall be referred for arbitration to the Bhagalpur jurisdiction. Disputes shall be decided keeping in view of the terms and conditions of the tender and Bihar financial rules applicable to the University.
31. Warranty 3 years from the date of installation will be provided.
32. PBG-The vendor shall furnish unconditional Performance Bank Guarantee issued by the nationalized bank in the shape of TDR/FDR in favour of Comptroller, BAU, Sabour @10% of the order value valid for 3years and 2 months from the date of installation & commissioning.