



ज्वार अनुसंधान निदेशालय  
**DIRECTORATE OF SORGHUM RESEARCH**  
(भारतीय कृषि अनुसंधान परिषद/Indian Council of Agricultural Research )  
राजेन्द्रनगर, हैदराबाद/Rajendranagar, Hyderabad-500030  
Phone: 24015349, 24018651, Fax no.24016378



## **TENDER NOTICE**

No: 1-315/2010-11/ST/III

Date: 16/08/2010

To

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Dear Sir,

We have a requirement of the goods & services as indicated below, tender for which will be opened at **11:00** AM hrs on **15/09/2009** (date) and you are invited to submit your most competitive tender for the same (equipment-wise separate tender must be submitted) . All the relevant details are given below. **Further you must enclose separate Demand drafts drawn in favour of ICAR Unit – DSR Account, payable at Hyderabad.**

1. Rs.200/- for each item/equipment separately as tender fees.
  2. 2% of the cost quoted price as EMD. Otherwise your tender will not be considered.
- i) Description of the goods required and the required quantity :  
As enclosed in Annexure – 1
  - ii) Guiding specification and other technical details :  
As enclosed in Annexure – 2
  - iii) Terms of delivery : delivery at site, viz. Director,  
Directorate of Sorghum Research,  
Rajendranagar, Hyderabad – 500 030.
  - iv) Delivery period for goods : Within **6 to 7** weeks from the date of the purchasers signing the contract.
  - v) Erection / installation and commissioning (if required, depending on the goods ordered) are to be completed within **7 - 10** days of delivery of the goods at site.

- vi) Terms of Inspection by the purchaser's representative at **D.S.R. Rajendranagar, Hyderabad – 500 030.**
- vii) Training of purchaser's operator(s) for operating the goods ordered, as and if necessary 2 operator(s) is / are to be trained for a period of One week at purchaser's premises / supplier's premises for successfully operating the goods purchased. The training shall be completed by **One week**. Or depending on the operation of the equipment.
- viii) Price structure :
- a) The tenderer shall quote for the complete requirement of goods & services and for the full quantity as shown against a serial number in the list of requirements in Annexure – 1. Unless otherwise specified in Annexure – 1, the tenderers are, however, free not to quote against all the serial numbers mentioned in the list of requirements ( in case there are more than one serial number in the list of requirements).
  - b) The rates and prices quoted shall be in Indian Rupees or in foreign currency for imported equipments (FOB value).
  - c) All duties, taxes and levies payable by the supplier under the contract shall be included in the quoted price. The purchaser will not pay any such duties, taxes and levies separately. “However, sales Tax, as legally and contractually, leviable will be quoted separately by indicating the nature and the current rate of sales Tax, as applicable at the time of quoting. The Sales Tax will be paid extra at actual at the time of supply, provided the transaction of sale is legally liable to sales Tax and the amount of the sales Tax is contractually payable. If the supplier in its quotation does not ask for sales Tax extra, the same shall not be paid even if it asks for the same at a later date.
  - d) The rates and prices quoted by the supplier shall remain firm and fixed during the currency of the contract and shall not be subject to variation on any account, whatsoever, including statutory variations, if any. “However, sales Tax will be paid extra as per provision under Clause viii ( C ) above”
- ix) Receipt of goods & Terms of payment:
- a) Payment term for supply of goods, including erection / installation and commissioning (as and if applicable).  
Immediately on receiving the goods at site, the purchaser will verify the quantities of the items supplied as specified in the delivery challan of the supplier and also check for any superficial damage etc., in the goods so supplied and issue a provisional receipt accordingly. If the goods supplied do not require erection / installation and commissioning at site, the purchaser, within three working days of issue of the provisional receipt, will issue acceptance certificate (of the goods) to the supplier, provided the goods supplied are acceptable in terms of the contract. However, if the goods supplied also need erection / installation and commissioning, the purchaser will issue acceptance certificate within two working days, after successful erection / installation and commissioning. The supplier will then send its invoice along with the purchase's acceptance certificates and other accompanying documents to the paying authority for payment.

The paying authority will realize the full payment to the supplier as due in terms of the contract, within seven working days of receipt of supplier's invoice, purchaser's receipt certificate and other accompanying documents, provided the same are in order.

“While claiming reimbursement for sales Tax, the supplier shall furnish the following certificate duly dated and signed, on its bill”

“Certified that the goods on which sales Tax has been charged have not been exempted under the Central Sales Tax Act or State Sales Tax Act or the rules made there under and the charges on account of sales Tax on these goods are correct under the provisions of that Act or the Rules made there under. Certified further that we are registered as dealers for the purpose of Sales Tax in the State of ..... Under registration number ..... We further confirm that the amount of Sales Tax shown in the bill against this contract is correct in terms of above provisio”

- b) Payment for training of purchaser's operator(s) if a applicable.  
After release of payment to the supplier as per sub-para (a) above and after successful completion of training of the operator(s) in terms of the contract, the purchaser will immediately issue a certificate to this effect to the supplier. The supplier will thereafter send its invoice for training charges, along with the above certificate to the paying authority. The paying authority will release the payment to the supplier in terms of the contract within seven working days of receipt of supplier's invoice provided the invoice and the accompanying documents are in order.
- x) Paying Authority :            Director,  
   Directorate of Sorghum Research,  
   Rajendranagar, Hyderabad – 500 030.
- xi) Liquidated Damage Clause :  
If any time during the performance of the contract, the supplier encounters conditions hindering timely delivery of the goods, the supplier shall promptly inform the purchaser in writing the fact of the delay and the likely duration of the same. After receipt of supplier's communication, the purchaser shall decide as to whether to cancel the contract for the un-supplied portion after the existing delivery period, or to extend the delivery period suitably by issuing an amendment to the contract. If the supplier fails to deliver the goods and / or perform the services within the contractual delivery period for reasons other than circumstances beyond supplier's control (which will be determined by the purchaser) and the purchaser extends the delivery period, the purchaser will also deducted from the contract price, as liquidated damages, a sum equivalent to 0.5% (half per cent) of the delivered price of the delayed goods or unperformed services for each week of delay or part thereof until actual or performance. The maximum limit of such deduction will, however, be 10% (ten per cent) of the contract price of the delayed goods or services.

Further, during such delayed period of supply and or performance, the supplier shall not be entitled to any increase in price and cost, whatsoever, on any ground. However, the purchaser shall be entitled to the benefit of any decrease in price and cost on any ground, whatsoever, of the goods & services, supplied during the period of delay.

The purchaser's letter (to the supplier, with copies endorsed to others concerned) extending the delivery period will be subject to the above condition.

xii) a) Warranty Clause : **One year from date of installation of the equipment / Item.**

b) **Performance Security** :

The successful bidder will have to pay Performance Security within 21 (twenty one) days after the issue of purchase order by the purchaser, the supplier, shall furnish performance security to the purchaser for an amount of 10% (ten per cent) of the contract value, valid up to 60 (sixty) days after the date of completion of the contractual obligations by the supplier, including the warranty obligations. However, EMD will be returned on receipt of security amount.

xiii) Dispute Resolution Mechanism

If any dispute or difference arises between the purchaser and the supplier relating to any matter connected with the contract, the parties shall make every effort to resolve the same amicably by mutual discussions. However, if the parties fail to resolve the dispute or difference by such mutual discussion within 30 days, either the purchaser or the supplier may give notice to the other party of its intend on to refer the same to arbitration. The arbitration shall commence thereafter. The arbitration shall be conducted by a sole arbitrator, who will be appointed by the Secretary, ICAR and the procedure to be followed in this respect will be as per the Indian arbitration and conciliation Act, 1996. The venue, of the arbitration shall be the place from where the contract is issued.

2. **You are also required to fulfill the following conditions and furnish the details as indicated in subsequent paragraphs.**

- a) At the time of awarding the contract, the purchaser reserves the right to increase or decrease by up to 25%, the quantity of goods & services as specified in the list of requirement, without any change in the unit price or other terms & conditions.
- b) Please furnish a certified copy of your latest ITCC (Income Tax Clearance Certificate).
- c) Please indicate if you are currently registered with any Govt. organization and if registered, furnish all relevant details.
- d) Please state whether business dealings with you presently stand banned by any Government organization and, if so, furnish relevant details.
- e) A supplier shall not submit more than one quotation for the same set of goods.

- f) The supplier shall at all times indemnify the purchaser, at no cost to the purchaser, against all third party claims of infringement of patent, trademark or industrial design rights arising from the use of the goods or any part thereof, with respect to the goods quoted by the supplier in its offer.
  - g) The tender(s) as well as the contract shall be written in English language. All correspondence and other documents pertaining to the quotation(s) and the contract, which the parties exchange, shall also be written in English.  
The tender and all correspondence and documents relating to the tenders exchanged between the bidder and the purchaser may also be written in Hindi language provided that the same is accompanied by an English translation, in which case, for the purpose of interpretation of the quotation, the English translation shall govern.
  - h) Please mention your Tax Identification Number ( TIN ) along with a copy certificate of Registration.
  - i) The contract shall be governed by the laws of India and interpreted in accordance with such laws.
  - j) **The Tender / offer shall remain valid for acceptance for a period not less than 90 days after the specified date of opening of the offer.**
3. Separate Tenders for each equipment shall be submitted in sealed envelopes. The envelope shall be addressed to the Director, D.S.R. Rajendranagar, Hyderabad – 500 030. ( Purchaser ) and it should also bear the tender enquiry number and the words “DO NOT OPEN BEFORE at **11.00 AM** on **15-9-2010** (\* The time and date of opening of the tenders). These envelopes should then be put inside another envelope, which will also be duly sealed. The outer envelope will bear the full address of the purchaser. The supplier must ensure that its tender (i.e quotation), duly sealed as above , reaches the purchaser at least one hour before the time and date of opening of tenders. The supplier may, at its choice, send the tender by Regd. Post or by speed post. Alternatively, the supplier may also hand deliver the tender to the purchaser in which case it has to be dropped in the tender box kept in the office. No receipt will be issued separately.
4. The tenders, which are received late i.e. after **10.00 AM** on **15-9-2010** by the purchaser will be ignored. Further, the purchaser does not accept any liability and responsibility for the tenders in case the same are not properly sealed & marked and / or sent as above.
5. The tenders, which are received on time ( as per para 3 above ), will be opened at purchasers office at **11:00 AM** on **15/09/2010** (date). The purchaser will open the tenders in the presence of the tenderers duly authorized representatives, who choose to attend the tender opening.
6. The purchaser will evaluate and compare the tenders which are substantially responsive i.e which are properly prepared & signed and meet the required terms, conditions, specification etc. The purchaser will award the contract to the supplier whose tender will be determined to be responsive and offering the best evaluated price.
7. Notwithstanding the above, the purchaser reserves the right to accept or reject any tender or annul the tendering process and reject all tenders at any time prior to award of the contract, without assigning any reason, whatsoever, and without incurring any liability or obligation, whatsoever, to the affected tender or tenders.

8. Please submit your tender accordingly. You shall sign all the pages of your tender. Your price tender may be furnished in the format enclosed as Annexure 3.

You are also required to return this original tender enquiry (all the pages), as it is, duly signed by you on every page, for our record. You may retain a photocopy of this tender enquiry for your record.

Encl : Annexures 1,2 & 3.

Yours faithfully,

(G.Krishna)  
Administrative officer

**LIST OF REQUIREMENTS**

<b>S No.</b>	<b>Description of Goods and allied services</b>	<b>Accounting Unit</b>	<b>Quantity</b>
1	GM Counter	1	1
2	Microtome	1	1
3	Water bath shaker with temperature and speed controller	1	1
4	Incubator	1	1
5	Spectrophotometer with ELISA reader	1	1
6	Millipore Water Purification system and double distillation unit	1	1
7	Hot Plate	1	1
8	Solid Phase microextraction (SPME) units with four sets of fibers (2 polar and 2 non polar fibres)	2	2
9	PH Meter	1	1
10	Stereo Binocular Microscope	1	1
11	Fluorescence detector	1	1
12	Small capacity Noodle making unit	1	1
13	Incubator Shaker	1	1
14	Burr Mill	1	1
15	Hammer Mill	1	1
16	Pilot plant based on CIPHET Milling Technology	1	1
17	Stereo Trinocular microscope	1	1
18	Air Conditioners and Portable dehumidifier with suitable voltage stabilizer.	1	1
19	Invertor	3	3
20	Table Top Centrifuge	1	1
21	Deep Freezer (-20 <sup>0</sup> C)	1	1
22	Micro - Pippets (5ML, 1ML, 200 Microlit, 100 Microlit, 20 Microlit)	5	5
23	PH Meter	1	1
24	Tensiometer for diff depth	8	8
25	UV vis spectrophotometer (buy back)	1	1
26	Flash evaporator	1	1
27	Electronic precision balance	1	1
28	RI detector	1	1
29	Gel documentation unit	1	1
30	Eye-piece mounted microscopic digital image analysis system (Camera + software)	1	1
31	Sonicator	1	1
32	Hybridizers	1	1
33	Phosphoimage analyser	1	1
34	ELISA reader with spectrophotometer	1	1
35	Microcentrifuge	1	1
36	Electrophoresis unit (Midi)	2	2
37	Electrophoresis unit (Maxi)	1	1
38	Powerpack for electrophoresis unit	2	2

<b>S No.</b>	<b>Description of Goods and allied services</b>	<b>Accounting Unit</b>	<b>Quantity</b>
39	<b>NIKON D 700</b> digital SLR camera with camera case	1	1
	<b>NIKON</b> LCD monitor cover BM-9	1	1
	<b>STRAP – AN- D700</b>	1	1
	MAGNIFYING EYE PIECE DK-17M	1	1
	MANFROTTO 055XPROB PRO TRIPOD STAND	1	1
	NIKON AF-S VR ZOOM-NIKKOR 24-120mm f 3.5-5.6 G IF ED lens	1	1
	NIKON AF-S VR ZOOM-NIKKOR 60mm f 2.8G ED lens	1	1
	NIKON AF-S VR MICRONIKKOR 105mm f 2.8G IF ED lens	1	1
	<b>NIKON</b> CLOSE-UP SPEED LIGHT COMMANDER KIT R1C1	1	1
40	<b>Heavy duty scanner</b>	1	1
41	<b>Exhibition display system/board for museum Unit</b>		
	<b>1.White Boards Easels and Stands (2nos)</b>	2	2
	<b>2. FlipChart Easels (2 nos)</b>	2	2
	<b>3. Mobile Presenter (6 nos),</b>	6	6
	<b>4. Display case (6 nos)-</b>	6	6
	<b>5. Info Board (2)</b>	2	2
	<b>6. Easy and Carry Display System (ECD system) (2 nos)</b>	2	2
	<b>7. Slimline System (2 nos)</b>	2	2
	<b>8. Conference Cabinet (2nos)</b>	2	2



**SPECIFICATIONS & OTHER TECHNICAL DETAILS  
OF THE ITEMS AND SERVICES (SHOWN IN ANNEXURE - 1)**

(If any tenderer is having equipments of higher/latest specifications than our specifications,  
kindly quote for them also in the tender)

S No.	Name of the equipment	Qty. (No.)	Detailed technical specifications
1	GM Counter	1	Radiation survey detector with meter to detect beta and low energy gamma radiation, meter scale 0 to 5Kcpm, counting range of 0.1X, 1X, 10X and 100X, built-in speaker, clip-on probe handle, factory calibrated, beta detector in thin end
2	Microtome	1	Low maintenance rotary microtome with micrometer feed system; Cylinder guide system for horizontal movement; manual sectioning via ultra-smooth counterbalanced hand wheel rotation; section thickness feed between 1 to 25 $\mu\text{m}$ or better with 1 $\mu\text{m}$ increments; Vertical stroke length 46 mm; clockwise or counter-clockwise operation of the coarse feed wheel, safety lock for hand wheel, specimen retraction feature; rotatable specimen clamp, knife sharpener; Section counter on LCD, trimming and slot cover as additional features.
3	Water bath shaker with temperature and speed controller	1	Water bath reciprocating bath shakers- microprocessor-controlled, Stainless steel bath, Temperature RT to 100°C, Maintenance-free brushless motor, shaking speed and shaking stroke are both adjustable, DC motor and variable speed, can range from 15 to 500 rpm, timed operation from 0.1- 99.9 hours, Easy access drain system in the cabinet for convenience in draining and disinfecting the system, Low splashing and turbulence in the chamber, Prevent heat loss and minimize evaporation with the use of optional covers. Platforms to hold different flasks and tubes, with a sprin rack, capacity 50 Liters. Feature a triple eccentric drive that handles heavy workloads, provides uniform agitation and enables continuous 24-hour operation even at high speeds. Water bath temperature controlled over the entire range with accuracy of $\pm 0.2^\circ\text{C}$ with PID temperature controller, View speed, operating time and temperature simultaneously optional- Visual/audible signals alert you to low water levels. Heat turn off if temperature increases $\pm 1^\circ\text{C}$ of setpoint. Soft start feature eliminates splashing of vessel contents, wetting of flask closure, and helps prevent sudden starts and stops. Proper safety. 3 years warranty, 5 year maintainence, 1.0 KVA stabilizer

S No.	Name of the equipment	Qty. (No.)	Detailed technical specifications
4	Incubator	1	A microprocessor based auto-tuning type, Temperature Range 5 ° C to 60 ° C, Temperature Accuracy ± 0.2 ° C, Bench top, Of double walled construction with Inner chamber of high quality Stainless Steel , Temperature controlled by Digital Temperature Controller or by P.I.D. controller, Compressor fitted in a way so as to minimize vibration, with 5.0 KVA stabilizer
5	Spectrophotometer with ELISA reader	1	8-12 measuring channel & 1 reference channel, wave length range of 340-750nm (6 filters 340, 405, 450, 492, 540, 620nm) with provision for fitting additional filters, minimum resolution of 0.001 OD and linearity up to 3.0 OD, read within 12-20 seconds, programmable time & speed shaking, able to read 96 well microplates, have at least 25 user defined programmes, data memory of at least last 25 plates, data transfer facility to the computer, Should work on 180-260 volts Ac, external printer, capable of printing complete results & graphs etc. directly from the ELISA reader, Multi-channel pipette (8 channel measuring 30 – 300 ul), laptop computer (with intelcoreduo2 or latest processor, 250 GB hard drive and 4 GB RAM) and suitable Voltage stabilizer. Optional Plate washer . Two years Warranty followed by 5 years CMC should be provided.
6	Millipore Water Purification system and double distillation unit	1	<p>Ultra pure water supply, ability to purify ground (hard) water, 3L/Hr, 3 stage pretreatment system, 3 years warranty, 5 years onsite maintenance, additional cartridges and UV lamps,* Pretreatment cartridge with anti scaling compound, Depth filter and activate carbon with RFID Tag, to measure the throughput of the water to know the consumable life of the cartridge.</p> <ul style="list-style-type: none"> <li>* Pump with unique temperature feed back mechanism</li> <li>* High flux Thin film composite polyamide RO membrane with 94- 99% rejection</li> <li>* Recirculation loop with capillary tube and diaphragm valve</li> <li>* Mixed bed ion electro deionisation module with auto regeneration by a weak electric current, eliminating the need for chemical regeneration or replacement of DI resin cartridges.</li> <li>* Carbon beads at cathode of the EDI module to prevent scaling of the module thus eliminating the requirement of extra softening pretreatment cartridge.</li> <li>* Permeate divert valve which will divert low quality water to the drain.</li> <li>* Coaxial resistivity cell with a flow through design</li> <li>*UV lamp 254 nm to remove germicidal effect before entering the tank</li> </ul>

S No.	Name of the equipment	Qty. (No.)	Detailed technical specifications
			<p>*Display both compensated and non-compensated temperature accurate within <math>\pm 0.1^{\circ}\text{C}</math>.            Type II Water flow rate 10L/hr            STAGE 3 RESERVIOR: A 50 liter capacity Reservoir with Sensor rod float switch, programmed to have high and low level cutoff based on water level in the tank</p>
7	Hot Plate	1	<p>Rectangular Hot plate with outer M.S. sheet body duly powder coated or stove painted. Useful for continuous heating. Heavy duty cast Iron Top, ceramic Blanket Insulated. Top with heat resistant paint. Size - 18x24x6 (450x600x150mm) with Thermostate/Energy Regulator Contri and with Digital Temperature Controller</p>
8	Solid Phase microextraction (SPME) units with four sets of fibers (2 polar and 2 non polar fibres)	2	<p>1. SPME fiber holder manual use with adjustable needle gauge SUPELCO CAT NO. 57330.U    2. SPME fibre assemblies (For volatiles (MW 60-275)    a. 100um polydimethyl siloxane (Fiber gauge 24) SUPELCO CAT No. 57300.U    b. 100um polydimethylsiloxane (Fiber gauge 23) SUPELCO CAT NO. 57342.U</p>
9	PH Meter	1	<p>Digital PH meter, Portable Model, Display 16x2 LCD Range PH 0 to 14.00, mv 0 to 1999.9 mv, Resolution PH 0.01, Highly stable and Accurate</p>
10	Stereo Binocular Microscope	1	<p>Binocular, Stereo zoom microscope with 4.4:1 Zoom with 10x eyepiece, with built-in 3 MPixel digital camera and 8x-35x zoom range, 10x/20 mm high eyepoint, non-removable eyepieces, exclusive 50-75 mm Interpupillary distance, 100 mm working distance, student-proof, all-in-one, plug and play design, no removable parts, tool-free tension control, built-in 25,000 hour 6500 K, true daylight, constant-color temperature power LED illumination for BOTH reflected and transmitted light, variable light intensity control for reflected and transmitted light. Reflected light transmitted light can and be used separately or simultaneously, exclusive 3 directional reflected illumination (fill, top and oblique), power switch located on back of stand, exclusive auto-shutoff after 60 minutes, sealed stage plate, sealed light control panel on rear of stage area, comes with software for image capture and simple measuring and annotation applications, built in SD card slot (card included) for image capture without the need of a computer, live composite analog video output (selectable PAL or NTSC), USB 2.0 output, built-in universal voltage stabilizing power supply accommodates 100-240 V input, fully safety rated, including country specific power card and dust cover.</p>

S No.	Name of the equipment	Qty. (No.)	Detailed technical specifications
11	Fluorescence detector	1	Multi-λ fluorescence detector with a complete flexible system that is customizable for analytical laboratory with isocratic pump, manual injector, and Intuitive interface with compatible software that allows for easy set-up, operation, and should be with features of simplicity, sensitivity, accuracy, and reliability. Should be upgradable to binary system and should be adaptable to auto sampler.
12	Small capacity Noodle making unit	1	Single screw extruder small capacity table top which can make ready to cook noodles up to 3 Kg
13	Incubator Shaker	1	Waterbath Stainless-steel bath reservoir LED digital display; PID control, Temperature Range: 25° to 90°C, Shaking frequency and temperature are adjusted via keypad and digital display, Fluid level can vary from 50 to 180mm to accommodate sample vessels of differing heights, plastic cover to prevent water spillage caused by turbulence
14	Burr Mill	1	slow turning commercial grade grinder burrs grinding wheels to cut the grain into uniform grounds. This is better than a standard blade grinder which usually does not produce uniform grind sizes. Consistent grind size is important to promote better taste and aroma. similar to grinder for coffee beans
15	Hammer Mill	1	Hammer mill complete with Feed Hopper, Set of serrated To liners, Set of side liners, set of main shaft assly, set of Bar type Hammers, Screen frame, Set of 3 Nos. Perforated screen and 'V' - pulley for mill.
16	Pilot plant based on CIPHET Milling Technology	1	<p>a) Domestic Flour Mill - Cabinet Model, high quality range of Domestic Flour Mill Cabinet Model that is available as Stone less Atta Chakki for domestic purpose. HP single phase electronic motor, Capacity 5-10 Kg/Hr (Rs.1,50,000)</p> <p>b) UDY cyclone lab grinder: This quality Lab Mill is designed for general purpose grinding of a variety of materials. The lower grinding speed and lower cost make the direct drive model ideal for a variety of lab grinding applications. The powerfull 3/4 horse motor produces a uniform partical size in a variety of materials. UDY cyclone sample grinder : Designed to be adapatable to your lab sample grinding requirements with quality interchangeable componets and attachments. Sample consistancy produced by the Belt Drive Model is compatable with NIR sample testing (Rs.50,000)</p>

S No.	Name of the equipment	Qty. (No.)	Detailed technical specifications
17	Stereo Trinocular microscope	1	Microscope frame for transmitted microscopy with trinocular tube, a pair of eyepiece 10X (F.N.18), quadruple revolving nosepiece, mechanical stage, abbe condenser, <b>Plan Achromat objective (4X,10X,40X,100X)</b> , 6V20WHAL halogen bulb (2 pcs.), blue filter KB-P (LP5146), immersion oil 8cc; Trinocular tube, FN20, fixed light pass, Bi/Photo: 50/50; Power cord, Dust Cover, DIGITAL CAMERA ALONG WITH ADAPTERS, ONE YEAR WARRANTY
18	Air Conditioners and Portable dehumidifier with suitable voltage stabilizer.	1	<p><b>Requirements of Airconditioning system and de-humidifiers at Medium-term Storage 1. Refrigeration system</b> - Compressor: Semi – hermetic reciprocating compressor units preferably Copeland make; Receiver: Capable to store nearly 100% pump down; Refrigerant: HFC complaint to the schedule of Ozone Depleting Substances (ODS); Condenser: Remote air – cooled condenser suitable for ambient temp from -5C to 48 C and for installation in open environment; Cooling Unit: A ceiling mounted, forced air – cooling unit constructed with steel sheet panels and should be assembled to form a rigid structure. Cooler surface should be constructed from copper tubes and Aluminium fins mechanically bound in place; complete with Condensed drip tray at the base with drain line connection. <b>2. Control System:</b> The controller should have the facility to set temperature and humidity value and also the safety limits for temperature and humidity. The temperature control to be with in +/- o C at the sensing point. An audible alarm should be provided in the event of actual values exceeding the set limits, connected to the main building and security guard room. In the event of failure of the main mechanical refrigeration system or dehumidification device, the switch over to standby system should be automatic with indication of failure of main system. In the event of power failure, module should have delayed start in a sequence so that power lines are not loaded. <b>Performance parameter:</b> The empty MTS cool down to +4 C from 30 C ambient in 1 hr and the Humidity to 5% RH should reach from 95% RH in 2hr. <b>Power Supply:</b> 415V=/<math>\pm</math>10%, 3 phase and 50 Hz five – wire system. <b>Ambient Temperature:</b> Minus 5 C to plus 48 C; <b>Dehumidifier standard company make like Bry Air or equivalent, Range:</b> 35-45%, <b>Mobile rack</b></p>

S No.	Name of the equipment	Qty. (No.)	Detailed technical specifications
19	Invertor	3	Invertor with true sine wave, to be supplied with full functional assembly. Two different of capacities are required; 2.5 KVA (2 nos), and 800 VA (1 no).
20	Table Top Centrifuge	1	Fixed angle rotor with lid, capacity: can hold 12 microfuge tubes of 500 µl capacity, max. speed 12000 rpm, digital display, autobreak mechanism, weight ≤12 kg (easily movable), max Volume (L= 10 inch x W=10 inch x H= 8 inch) for occupying less space, noise free (min noise).
21	Deep Freezer (-20 <sup>0</sup> C)	1	<p>Liters : 626Ltrs, Input Power : 700W,Temp. Range : -20~ -40°C</p> <p>Voltage: 220~240V/50Hz,Temperature control : Microprocessor Contro, Over temperature and Under temperature : Audible and visual alarm, Cabinet : Upright, Door : Single, foaming</p> <p>Foam insulation : High-density CFC-free urethane</p> <p>Compressor : Dan Foss compressor, Door lock : 1</p> <p>Shelves/Drawers/Baskets : 3/4 –</p> <p>Exterior Dimensions (mm) : 1000x890x1960</p> <p>Interior Dimensions (mm) : 760x630x1300</p> <ul style="list-style-type: none"> <li>• Upright, Programmable</li> <li>• Microprocessor Controlled</li> <li>• Digital Temperature Display</li> <li>• Safety alarms for malfunctions of both Audio / Visual</li> <li>• Built-in Voltage Compensator</li> </ul>
22	Micro - Pippets (5ML, 1ML, 200 Microlit, 100 Microlit, 20 Microlit)	5	Adjustable micro - pippets of capacity 5ML, 1ML, 200 Microlit, 100 Microlit, 20 Microlit
23	PH Meter	1	High Resolution and Accuracy (Up to ±0.002 pH Accuracy) for precise pH measurement , LCD Display to provide clear instructions for setup, measurement and calibration, pH range 1-14
24	Tensiometer for diff depth	8	Tensiometer for soil water measurement & assemblies/ accessories, Should be able to record data using pressure gauge at various depth 30,45,60 and 90cm, Soil augur
25	UV vis spectrophotometer (buy back)	1	<p>Microprocessor based UV-VIS Spectrophotometer with high resolution LCD display and dedicated soft keypad, for operation on220V / 50Hz.</p> <p>☑ Stand-alone operation or complete control through PC with UV-Probe PC software supplied as standard,Wide wavelength range of 1,100 nm to 190 nm☑ High resolution 1 nm spectral bandwidth over entire wavelength rangeWide Photometric range of -4 to +4 Abs and 0 to 400 %T ☑ High Photometric Accuracy of + 0.002 Abs at 0.5 Abs ☑ High Photometric Repeatability of &lt;+0.001 Abs at 0.5 Abs</p>

S No.	Name of the equipment	Qty. (No.)	Detailed technical specifications
26	Flash evaporator	1	<p>Main Unit</p> <ol style="list-style-type: none"> <li>1) Sample Volume Range:50ml to3000ml</li> <li>2) Rotation Speed:20-240rpm</li> <li>3) Rotation Speed Display:LCD</li> <li>4) Hand/Motor lift:Motor ift</li> <li>5) Supply voltage:230V±50Hz</li> <li>6) Lifting Stroke: 160mm</li> <li>7) Head Tilt Angle : 0-60°</li> <li>8) Motor Power:40W</li> <li>9) Automatically lifting up when no electricity</li> <li>10) Dimension±380mmL×340mmW×692 mmH</li> </ol> <p>HB-03Plus Heating bath</p> <ol style="list-style-type: none"> <li>1) Bath Temperature Range±Ambient~180±</li> <li>2) Temp.Control Mode: PID control &amp; LCD display</li> <li>3) Overheat cut-off protection:190±</li> <li>4) Temperature Stability:±1±</li> <li>5) Bath Volume :5L</li> <li>6) Material bath: stainless steel with teflon coating</li> <li>7) Heating Power:1300W</li> <li>8) Collection Vessel: 1000ml</li> <li>9) Rotation Flask: 1000ml</li> <li>10) Condenser type: Vertical type and water refrigerating</li> </ol>
27	Electronic precision balance	1	<p>Balance electronic (digital) capacity to weigh 1 mg to 50g. With accuracy upto 0.01 mg. along with cover adapter and other accessories</p>
28	RI detector	1	<p>RI detector should have the features Refractive Index Range -1 to 1.75RIU, Noise Level -2.5 x 10<sup>-9</sup> RIU max, Drift -1 x 10<sup>-7</sup> RIU/hour max, Max operating Flow rate -20ml/min (150ml/min with option), Temperature control of cell unit -30°C to 60°C (1°C step), Operating Temperature range -4°C to 35°C Power Requirements -AC 110V, 230 V, 150KVA, 50/60 HZ.</p>

S No.	Name of the equipment	Qty. (No.)	Detailed technical specifications
29	Gel documentation unit	1	Viewing and capturing fluorescent and whitlight images upto 10" x 8" gels interchangeable UV/visible light, with UV protection, complete system with UV/Vis transilluminator, capturing camera, control software for real time imaging, PC workstation and UPS
30	Eye-piece mounted microscopic digital image analysis system (Camera + software)	1	Microscope camera for binocular microscope, resolution 2048 x 1536, hardware resolution 3.0 Megapixels, light weight, mounting barrel with adaptor, compatible with momo-, bino- and trinocular microscope, 24 Bit 1.64 million colors, auto exposure, automatic shutter control, image output and power supply through USB port. To be supplied with suitable software that can simultaneously analyse on-screen images for micrometry (measurement of object dimensions using metric unit), as well as can capture & store still and video images in a computer using windows XP operating system.
31	Sonicator	1	Imported, optional battery operation, Ultrasonic wave frequency -20KHz (suitable for lysis of bacteria and DNA, continuous as well as pulsed, 1-5 msec duration, compatible to process 1-50 ml.
32	Hybridizers	1	Imported, hybridization oven can accommodate atleast with two large bottle capacity, controlled by microprocessor, temperature range of 10- 100 <sup>0</sup> C, adjustable rotation speed of 10-20 rpm.
33	Phosphoimage analyser	1	imported, Lower limit of detection is 0.2 dpm/mm <sup>2</sup> , scan time 4- 15 min, pixel size 50-200 micron, With 5 years/10000hrs warranty, With image work station Includes the cost of installing surge protection and extensive line conditioning.
34	ELISA reader with spectrophotometer	1	Imported ELISA reader: Wavelength range of 300-900 nm, fast and accurate measurement of 96/384 well plates, shaking and incubation upto 500C temperature, capacity to read variety of microplates from 6 to 384 wells, photometric range of 0-4 Abs Imported spectrophotometer: Flourescent based quantification of DNA/RNA / oligonuceotides/proteins/reporter gene essay, detect broad spectrum of fluourescent dynes in the range of 350-900 nm, options for disposable or quartz standard cuvettes. * Supply suitable softwares for instrument control, data handling and analysis, additional filters, cuvettes and kits, printing facility or port cornnect to PC.



S No.	Name of the equipment	Qty. (No.)	Detailed technical specifications
35	Microcentrifuge	1	Imported, Fixed angle rotor can accommodate upto to 24 place of 1.5/2.0 ml capacity tubes, maximum speed of 12,000-14,000 rpm, digital display of speed and time
36	Electrophoresis unit (Midi)	2	Imported, Midi horizontal units includes base unit, safety lid, casting tray for 13 x 15 cm gels, atleast two comb positions in one gel, four 1.5 mm x 16 wells comb, four 1.5 mm x 24 wells comb, four 2.0 mm x 24 wells comb, four 2.0 mm x 24 wells comb.
37	Electrophoresis unit (Maxi)	1	Imported, Maxi horizontal unit: Includes base unit, safety lid, casting tray for 25 x 30 cm gels, atleast two comb positions in one gel, two 1.5 mm x 26 wells comb, two 2.0 mm x 26 wells comb, 1.5 mm x 52 wells comb.
38	Powerpack for electrophoresis unit	2	Imported, Out put power supply of 300 plus (300 v, 4-500 mA) power pack with dual control modes (constant voltage or current) with automatic crossover, the unit can be resume the run with original settings upon restoration of power, digital display, four sets of out terminal allow for the simultaneous running of multiple gels from the same power supply.
39	NIKON D 700 digital SLR camera with camera case	1	
	NIKON LCD monitor cover BM-9	1	
	STRAP – AN- D700	1	
	MAGNIFYING EYE PIECE DK-17M	1	
	MANFROTTO 055XPROB PRO TRIPOD STAND	1	
	NIKON AF-S VR ZOOM-NIKKOR 24-120mm f 3.5-5.6 G IF ED lens	1	
	NIKON AF-S VR ZOOM-NIKKOR 60mm f 2.8G ED lens	1	
	NIKON AF-S VR MICRONIKKOR 105mm f 2.8G IF ED lens	1	
	NIKON CLOSE-UP SPEED LIGHT COMMANDER KIT R1C1	1	

S No.	Name of the equipment	Qty. (No.)	Detailed technical specifications
40	Heavy duty scanner	1	Machine type: Mono laser all in one; Available function: Print, scan, copy and fax; scanner features: Scanner type: ADF/Color CSI, Scanner speed: 50 ppm, Resolution: Maximum 600 dpi, Scan to email: SMTP and TCP/IP, Scan to folder: SMTP/TP, Duplex unit, ARDF, Paper size: A5 - A 3, Copying speed: 25ppm, Zoom range: 25-400% in 1% steps, Memory standards 256 MB, Print speed: 25ppm, Interface: Ethernet 10 base-T/100 base TX, USB 2.0, Standard memory: 512 MB + 40 GB HDD, Paper input capacity: 2 X 500 sheet paper tray/100sheet bypass.
41	Exhibition display system / board for museum	2	1. White Boards Easels and Stands (2nos) - Highly Portable and Lightweight tripod stand, With swiveling arrangement and facility to lock the angle. Supports double sided boards. Having 4 detachable MS sections. 4 Castors ( 2 are lockable) made of M steel Deluxe ( Aluminium ), Straight height 165 cms approx., Suitable for holding boards upto 180 X 120 cms, Whiteboards size : 90 X 120 cms. And 180 x 120 cms, Suitable for writing boards
		2	2. FlipChart Easels (2 nos)- Free Standing. Require No Setting up, Accommodates different sized Flipchart Pads, The base has a whiteboard surface ( Laminated or Rite Steel), Sizes of whiteboard base sizes: [60X90cms] [2'x3'] and [75X90cms] [2.5' x 3'], Hassle free. No need to erase information or data. Just flip the page of the pad and move on from one page to another. To refer to any previous page, just flip the page back.
		6	3. Mobile Presenter (6 nos), Consists of the Portable Stand on which a board( single sided or double sided board) is fitted. Double Leg Display Stand: Suitable for placing large sized Pinup or Writing Boards – 8X4, 6X4, 5X4. Stable, Heavy duty and Elegant looking, Board Surfaces: Rite (Resin coated steel)/ Cardinal (Enamelled Ceramic) and Laminated surface. Board size : 2'x3' to 6'x4' [60x90cms] [1.5' x 2'] to [120x180 cms][3'x4.5'].
		6	4. Display case (6 nos)- The “Display Case with LIGHT with greater inside depth wherein a tube light is fitted, Transparent Acrylic Wing that is fitted on a Pinup Board , Should be useful for protecting displays, notices, Sizes: 150X120, and 180X120. Cms, Provision for Acrylic wing to be also be fixed on whiteboard, fixo graph as well
		2	5. Info Board (2)- Elegantly grooved felt covered boards in range of sizes and with gold finish trim, suitable for any prestige position, N. Blue and Maroon color fabrics, Gold or Silver color letters in 12cm, 25cm, 38 cm heights, Sizes: 90 X 60, 120 X 60, 90 X 120 ( HW cms)

<b>S No.</b>	<b>Name of the equipment</b>	<b>Oty. (No.)</b>	<b>Detailed technical specifications</b>
		2	6. Easy and Carry Display System (ECD system) (2 nos)- Anodized aluminium frame, 4, double sided, 22'x34', pin-up boards, 5 supporting legs, detachable in two components, Interconnecting panels and legs, with a storage box
		2	7. Slimline System (2 nos) -Six double-sided velfabric panels with 3 header panels, Easy to carry, Collapsible, and easy to store, Simple to install, Display material can be attached with Velcro hook tapes or pinned, Dimensions: 225 cms height x 180 cms. Width, Has PVC channelling and stand, Lightweight, Suitable for Indoor Display
		2	8. Conference Cabinet (2nos)- Make your whiteboard look like part of your furniture, Aluminium ( CCAL series), Having a Base board and a left & right wing, Having an option of three writing surfaces for the baseboard : Laminated White, Rite and Cardinal, In the case of Aluminium cabinets the left and right wings in double sided Rite or Cardinal surfaces, Sizes( i.e. overall footprint size with the wings closed) : 48X60"( 120X150cms) and 48"X72"( 120 X180cms)

FORMAT OF TENDER PRICE

Serial No.	Description of goods & allied services	Specifications	Accounting unit	Qty	Quoted unit Price in Rs.		Total amount in Rs.
					In Figures	In words	

Grand Total Cost Rs.

We agree to supply the above goods & allied services. We confirm that the same will meet the description, specification and other technical details as required in the tender enquiry.

“ Details of applicable Sales Tax to be paid extra and the current rate of the same:

We confirm, that we agree to all other terms & conditions of your tender enquiry including the terms of delivery, period of delivery and warranty provision.

We have furnished all the information, as required in the tender enquiry and attached the relevant documents.

(In case a tenderer desires to put some additional / modified stipulations, terms & conditions etc. the same may be clearly indicated).

We confirm that our offer will remain valid for acceptance for **90** days after the date of opening of tenders.

.....

(Signature, name and designation of the authorized executive of the tendering firm)

For and on behalf of .....  
(Name and address of the tendering firm)

.....  
(Seal of the tendering firm)

Date :

Place: