

## मारतीय कृषि अनुसंधान परिषद,

उत्तरपूर्वी पर्वतीय क्षेत्र अनुसंघान परिसर उमियम, मेघालय —793 103 INDIAN COUNCIL OF AGRICULTURAL RESEARCH ICAR Research Complex for NEH Region Umiam, Meghalaya – 793 103



No. RC(S)160/2017/EFC/Pt.1

Dated Umiam, the 12th February'2018

## **OPEN TENDER**

INVITATION OF TENDER IS INVITED FOR PROCUREMENT OF SCIENTIFIC EQUIPMENTS/MACHINERIES UNDER EFC FOR THE YEAR 2017-18, FOR ICAR, RESEARCH COMPLEX FOR NEH REGION, UMIAM, MEGHALAYA

Sealed bids are invited on from the reputed from reputed Manufacturer/ Authorized Dealer/ Government organizations for supply of Scientific Equipments, having at least 3(three) years experience in manufacturing/ marketing/ supply of such Equipments/Machineries by ICAR Research Complex for N.E.H. Region, Umiam, Umroi Road, 793103, Meghalaya. The details specification of equipments/machineries is as per Appendix -1.

## **TERMS & CONDITIONS OF THE TENDER**

- 1. Cost of Tender paper of Rs. 1000/- (Rupees one thousand) only (Non refundable) to be deposited in the favour of the Director, ICAR Research Complex for NEH Region, Umiam 793103 by means of Demand Draft payable at SBI, ICAR Complex Branch, Umiam. Non submission of the cost of Tender paper (consolidated) shall lead to non consideration of the Tender.
- 2. The Bidders should submit the proposals in two parts:
  - I. Technical Bid (Bid –I)
  - II. Financial Bid (Bid-II)
- 3. Technical part should contain all such details as mentioned in the Bid Document.
- 4. Financial part (BID-II) should contain the financial bid inclusive of all admissible taxes, duties and levies, installation charges, freight charges, Taxes, VAT etc., as may be applicable etc. The rates quoted should be FOR up to ICAR Research Complex for NEH Region, Umiam for each particular item. The Financial Bid should consist of the Rates, their detailed break –ups, etc. Non-compliance of this shall lead to non-consideration of the Bid. The rates must be valid for at least for 1(one) year from the date of quotation.
- 5. These two parts (BID-I & BID II) should be submitted in separate sealed envelopes. Both envelop should then be sealed in a third envelop super scribed as "TENDER NO. RC(S)160/2017/EFC/Pt.1, dated 12<sup>th</sup> February, 2018 due on 05<sup>th</sup> March,2018 FOR PROCUREMENT OF SCIENTIFIC EQUIPMENTS/MACHINERIES under EFC for the year 2017-18, FOR ICAR, RESEARCH COMPLEX FOR NEH REGION, UMIAM, MEGHALAYA and addressed to "THE DIRECTOR, ICAR RESEARCH COMPLEX FOR NEH REGION UMIAM, MEGHALAYA-793103". The firm should also super scribe on the top of the envelope the Sl. No. & name of the equipments to be supplied, date of opening and details of earnest money deposited otherwise their tender may not be considered.
- 6. The Cost of the Tender (consolidated) as well as the Earnest Money (consolidated) in the form of Bank Draft along with all other Technical Details should be mandatory

kept in the Technical Bid only. Cheque/Bank Guarantee/fixed deposit receipt/ money orders/Cash etc. are not acceptable towards deposit of earnest money.

- 7. In no case Earnest Money will be accepted after opening of tender.
- 8. Details of Earnest Money i.e. draft number and date should be indicated on the cover of the big envelope otherwise the tender may not be received or opened and returned to the party. All Tenders should be sent by Registered Post. Tenders to be handed delivered should be put in the Tender box, kept in the office chamber of Chief Administrative Officer, ICAR Research Complex for NEH Region, Umiam, Meghalaya-793103 not later than 12:30 P.M. on 05<sup>th</sup> March, 2018. Tenders received after the due date and time shall not be considered under any circumstances.
- 9. On the date of opening, only Part-I (Technical Bid) will be opened. Part-II (Financial Bid) shall be opened subsequently only of those tender, whose Technical Bid qualifies as per the laid norms of this tender.
- 10. Composition of Technical Bid -
  - I. Profile & Track Record of the company
  - II. Document in support for Number of years in Scientific Equipments manufacturing/supply.
  - **III.** Document in support of last supply orders.
  - IV. Balance Sheet for last 3 financial years. Annual Turnover, which will be average of last three years on the basis of balance sheet.
  - V. Photo copy of PAN No. issued by Income Tax Department. Photo copy of Service Tax/GST/VAT Registration etc. (If not applicable submit the relevant document).
  - VI. Non refundable tender Document Fee of Rs. 1000/- in the form of Demand Draft from any Nationalized Bank drawn in favour of the Director, ICAR, Research Complex for NEH Region, Umiam, Meghlaya payable at Sate Bank of India, ICAR complex branch (If exempted/relaxed submit the relevant document in support of claim). Refundable Earnest Money Deposit (EMD) of Rs. 10000/-(Rupees ten thousand only) in the Form of Demand Draft from any Nationalized Bank, drawn in favour of the Director, ICAR, Research Complex for NEH /region, Umiam, Meghalaya. (If exempted/relaxed submit the relevant document in support of claim) The Cost of the Tender paper as well as the Earnest Money along with all other Technical Details should be mandatory kept in the Technical Bid only. Non submission of the Bid Security with quotation shall make the quotation/ bid liable to be rejected.
  - VII. Furnishing of related documents like detailed specifications, technical literature, brand name, model and make, catalogue, authorization letter, Dealership Certificate, Manufacturing company registration certificate, product certification, price list (if any) etc. is mandatory, Dealership certificate/Agency Certificate for the manufacturer/ manufacturing firm should be enclosed if the rates are quoted by the Dealers/Agents. Failing which the quotation shall not be considered.
  - VIII. Up-to-date sale tax certificate, tax clearance, valid registration certificate are mandatory.
    - IX. Other relevant technical documents/specifications in favour/ claim/ Support of equipments /machines if any may be submitted as additional with the technical bid.
- 11. The Buyer shall not be responsible for payment of transit insurance charges.
- 12. Payment shall be made on actual delivery in good condition and successful installation and demonstration (which should be free of cost and must be completed before payment).
- 13. In case for Imported goods:

- i. The price may be quoted in foreign currency and import will be on FOB basis. However, custom clearance, Inland freight etc. will be the responsibility of the supplier and no separate charges will be paid for that, however, custom duty exemption certificate shall be provided. The supplier should inform well in advance for sending these papers. No demurrage charges will be paid. If the supplier desires, rate in corresponding Indian currency may be quoted. It will be at the discretion of the authority of ICAR Research Complex for NEH Region to accept Indian or Foreign currency prices.
- ii. In case of any custom duty charge, applicable as per Govt. of India's Notification, the same may be paid by the firm which will be reimbursed to the Indian Agent (who should be a registered firm and with DGS&D immediately, subject to the condition that the bill of entry in original along with all relevant papers are submitted immediately, after custom clearance and installation and demonstration of the items. Installation and demonstration should be free of cost.
- The import & payment will be made by means of Foreign Bank Draft/ Site Draft in case of foreign imported goods. Performance Bank guarantee of 10% FOB value valid till the end of warranty period should be submitted before the release of the security deposit. All bank charges outside and inside India shall go to the beneficiary's account. Performance bank guarantee of 10% FOB value, valid till the end of warranty period, should be submitted before the release of the security deposit. All bank charges outside and inside India shall go to the beneficiary's account. Draft making charges would go to the beneficiary's account and a scanned copy of the draft, if required, can be sent to the Indian agent by post. Draft would be handed over after successful installation and demonstration which should be completed within 45 days from the date of draft and submission of all documents like bill of entry etc.
- iv. All imported items should be delivered up to destination i.e. all the import should be free of inland freight charges, insurance etc.
- v. Indian Agency Commission rate and amount should be clearly specified as per rules. IAC, wherever applicable, will be paid in Indian Currency only.
- vi. In case of delay in supply, penalty will be imposed @2% per week, subject to a maximum of 10% of the FOB value
- vii. Indian Agents quoting on behalf of their principal must be registered firms with DGS&D .They are also requested to provide necessary authorization letter from their principal along with the quotation.
- viii. ICAR Research Complex for NEH Region, Umiam, Meghalaya, being a Scientific and Research Organization, is exempted from payment of Excise Duty (Certificate to this effect will be provided).
- 14. All Bidders should mandatory give their current, PAN Card No., TDS& other Bank A/C details to enable the office for releasing the dues via e- payment basis.
- 15. KHADC license.
  - I. The Firm/Agency run by the Non-tribal contractor's /firms/companies/suppliers/stockiest/banded ware house/Private carriage contractors/Co-operative Societies etc. should produce Trading License issued by the KHADC (Govt. of Meghalaya).
  - II. Submission of tender paper does not fall under trade as per the above said act. However, if a Non-tribal becomes a successful bidder he has to furnish License issued by the KHADC (Govt. of Meghalaya) before any work involving trade is issued to him.
    - Further those firm/agency opting for clause II above are requested to submit an undertaking mandatorily to this effect along with the technical bids as a certification about their capability of submission of the trade license when

ask for, failing which the tender are liable to be rejected/not to be considered at any circumstances. (If not applicable submit the relevant document).

- 16. Performance Bank Guarantee is required for all indigenous items also. For items less than Rs.50, 000, the amount should be 5% of the actual cost of the equipment and for items more than 50,000.00 the amount should be 10% of the actual cost of the equipment. The bank guarantee should cover the entire guarantee/ warranty period which should be of at least one year duration.
- 17. The selected tenderers must complete the supply/installation/demonstration within 30 (thirty) days from the date of the supply order due to time factor or the said orders shall be treated as cancelled and no further correspondence will be entertained.
- 18. The guarantee/ warrantee should be from the date of installation. All guarantee/ warranty services should be attended within a maximum limit of 15 days, failing which, proportionate deductions from the security deposit may be made at the discretion of the Institute.
- 19. The complete details regarding the Institutions/ Corporations/ Bodies, etc. where the Firm/ Dealer has made the supplies during the last 2/3 years should also be furnished, along with the supply orders.
- 20. The Bidders should mandatory provide their full Bank Details, PAN Card No., IFS code No., and TDS so as to ensure e-payment to them directly on satisfactory completion of the Supply.
- 21. The Director, ICAR Research Complex reserves the right to reject any tender in part or full, without assigning any reason thereof.
- 22. Legal jurisdiction for all disputes shall be within the purview of the Shillong Court.
- 23. The bidders should mandatory sign on every page of the Tender Document, which would show their unconditional acceptance of all the terms and conditions of the Tender Document.
- 24. Tenders shall be opened on <u>05<sup>th</sup> March, 2018 at 2:30 pm</u>, ICAR Research Complex for NEH Region, Umiam, Meghalaya 793103. Interested bidders may attend the opening.
- 25. If the above mentioned closing /opening day of the tender happened to be non working date due to Bandh/Strike as any other reasons, the tender will be received & opened on the following working day at the same time except on the 2<sup>nd</sup> (second) Saturday.
- 26. Other terms & conditions, as may be decided by the Competent Authority from time to time, depending upon the condition & requirement of the supply. The intimation in this regard, shall be provided well in advance & the bidder/ supplier shall be bound by the said terms & conditions.
- 27. For any query/ clarification, the undersigned may be approached at: Contact address:

E-mail: storesection@yahoo.in

Sd/-DIRECTOR

Before quoting for the Tender, it is requested to kindly go through the Tender Document thoroughly and abide by all the Terms and conditions given. Non-Compliance of any of the T & C mentioned above, shall lead to non-consideration of the Bid and no request what so ever shall be considered under any circumstances.

## APPENDIX- I

List of equipments/ instruments  $\,$  for procurement under EFC for the year 2017-18 , along with specification:

Sl.No.	Name of the items	Specifications	Qnty.	Whom to be supplied
1	Gel Electrophoresis (Horizontal)	<ul> <li>Gel bed dimensions 26cm(w) x 40cm(l).</li> <li>High-Throughput Submarine Horizontal System based electrophoresis unit with</li> <li>Productivity Package to allow researcher to</li> </ul>	1	Plant Breeding Divn.
		<ul> <li>cast a second gel while the first is running!</li> <li>Safety cover</li> <li>Platinum electrode cassettes to provide rapid sample velocity and clear focused bands without smiling. Easy removal ofthese cassettes for cleaning or replacement.</li> <li>High quality, heavy duty construction, 3 year warranty with vast array of accessory options.</li> <li>Power leads, internal cooling chamber, buffer circulation ports</li> <li>Gel Casting Options: Tapered baffles for easy in situ gel formation. Optional Continuously Adjustable Caster to provide an alternative casting method that is fast, easy, versatile and</li> </ul>		
		reliable.  Gel Tray Specifications:		
		<ul> <li>UVT gel tray with 8 slots at 4.25cm path length, and 4 adjustable height combs.</li> <li>All gel trays should be winged for easy handling no more sticking finger into slippery buffer to extract gel tray.</li> <li>Made from sturdy 6.4mm thick UV transparent acrylic.</li> </ul>		
	,	<ul> <li>Grooves in gel tray corners create agarose anchors to prevent gel flotation during electrophoresis.</li> <li>Gel tray configuration should allow single run or multiple simultaneous short runs.</li> <li>All combs should be of microtitre format to allow multi-channel pipetting. Combs are</li> </ul>	×	
		<ul> <li>printed with catalog number and thickness for easy identification.</li> <li>Coolant may be recirculated beneath gel bed to provide constant temperature runs.</li> </ul>		
2	Deep Freezer	<ul> <li>Upright Vertical Deep Freezer</li> <li>Capacity - Internal: 265 litres</li> <li>Temperature range -20°C to -40°C</li> <li>Direct Cooling Type</li> <li>Microprocessor controlled system.</li> </ul>	1	Plant Breeding Divn.

ξ .X		<ul> <li>Minimum 6 drawers required</li> <li>Adjustable shelves</li> <li>Door lock</li> <li>Frequency 50 Hz</li> <li>Grade SS 304</li> <li>Material Type Internal: Stainless Steel</li> <li>External: Powder Coated CRCA Steel</li> <li>Display LED Display</li> <li>Voltage 220-240 volts  Required and to be supplied accessories</li> <li>5KVA or suitable voltage stabilizer.</li> <li>Appropriate stainless steel racks, storage boxes with inventory racking system of noncorrosive aluminium.</li> <li>Cryo Gloves</li> <li>Minimum one year warranty.</li> </ul>		
3	Seed Dryer:-	Tripled walled, inside made of stainless steel and outside made of mild steel painted in dark chocolate colour. Insulation between the two walls is filled with mineral wool.  It is fitted with Microsprocessed Electronic Digital temperature indicator cum controller & circulation fan also to get uniform temperature form ±3°C above ambient to 250°C.  Size of Dryer inside 455x455x605mm  No. of trays 4  Work on 220v/440v A.C.	1	Plant Breeding Divn.
4	Deep Freezer	<ul> <li>Temp. range: -17°C to -24°C</li> <li>Capacity: 345 ltrs</li> <li>Stand on vertical position</li> <li>Digital temp. controller with display</li> <li>Freely adjustable plastic coated shelves</li> <li>Heavy duty compressor</li> <li>Single door</li> <li>Built in condenser.</li> <li>No frost.</li> <li>PUFF insulation</li> <li>Door lock for safety.</li> <li>Easy to clean.</li> <li>Dimensions (Inches): 72.8x23.4x23.4 Preferably imported.</li> </ul>	1	Horticulture Divn.
5	Bench Top High Speed Centrifuge (Refrigerated)	<ul> <li>The instrument should be quoted with 24 place fixed angle, Antimicrobial coated rotor having 17500 RPM and 30, 130Xg.</li> <li>The centrifuge speed can be set from 500 RMP with an increment of 100 RPM</li> <li>The instrument acceleration time should be: &lt;14s and</li> <li>Breaking time should be: &lt;15s for doing</li> </ul>	1	Horticulture Divn.

	T			
		<ul> <li>experiment with sensitive samples</li> <li>The instrument should be very compact and fits in bench space and also access able in low hanging shelves.</li> <li>The Centrifuge can stored 50 no's of User defined program</li> <li>The centrifuge timer can be set from 10sec to continuous mode.</li> <li>The Centrifuge should be equipped with automatic rotor recognition and rotor imbalance detection features.</li> <li>The centrifuge should have some pre-defined</li> <li>Programme keys for easy access for routine program.</li> <li>The instrument should be capable to maintain constant 4°C at its MAX speed.</li> <li>The centrifuge should be CE and IVD certified for research Purpose.</li> <li>The instrument should be equipped with a separate SHORT spin key and SOFT break function.</li> <li>The centrifuge should be equipped with Fast Temp.</li> <li>Function and standby cooling Function.</li> <li>The centrifuge should be capable of ECO shut off function for Extended Compressor life.</li> <li>As a safety feature the instrument should have a build in condensation drain that eliminate water</li> </ul>		
		<ul> <li>separate SHORT spin key and SOFT break function.</li> <li>The centrifuge should be equipped with Fast Temp.</li> <li>Function and standby cooling Function.</li> <li>The centrifuge should be capable of ECO shut off function for Extended Compressor life.</li> <li>As a safety feature the instrument should have a</li> </ul>		
6	Culture rack with accessories	<ul> <li>warranty period.</li> <li>Minimum heating effect/heat dissipation.</li> <li>No Flickering effect.</li> <li>Tissue Culture Racks are made of tubular mild steel pipes flawlessly constructed duly painted/powder coated for longer life so as to provide the structure due protection from issues like corrosion for durability.</li> <li>Each rack of size 48"x12" (depth) is covered with thick unbreakable plexi glass/hylem sheet.</li> <li>Distance between shelves to shelves should be 16".</li> <li>Platform surface is of 3 mm thick hylem Sheet.</li> </ul>	1	Horticulture Divn.

	¢ , r	F 40 C	1000	
X 14	M STORE STORES	• Four 40-watt fluorescent light (With Electronic Ballast).		
		4x25 Watt incandescent lamps in each shelf with		*
		switching arrangement.		
		UV Germicidal Light are fitted inside the rack / work		3
		area.		
		All fluorescent tubes chocks and ultra violet		-
		germicidal tube chocks are fitted out side of rack. If		
		desired to avoid heat dissipation inside the rack.		
		<ul> <li>Fitted with 0-24 Hours Digital Timers.</li> <li>All control panels are fitted on the sides of tissue</li> </ul>		
		culture racks comprising of On/Off switch of		100
		fluorescent tubes and UV tubes & Timers.		,
		The whole rack should be provided with four nos.		
		castor wheels at the bottom for easy mobility to any		e e
		place.		
7	Autoclave Vertical	Vertical laboratory autoclave with sterilization	1	Horticulture Divn.
		chamber volume of 50 lit		
		The sterilization chamber constructed of corrosion		~
	*	resistant stainless steel.		
		<ul> <li>Microprocessor controller for high precision temperature control.</li> </ul>		
		<ul> <li>Display for temp, timer and warning alert checks.</li> </ul>		
		Automatic sterilization system for unattended		
		operation.		
		Sterilization temperature at 121 C		
	,	The pressure gauge attached to the front side for		li i
		easy check.		=
		The instrument should have Mechanical Safety		
		<ul><li>Devices</li><li>Over temperature protection by automatic power</li></ul>		100
		cutoff.		
		Over pressure protection by automatic and manual		
	^	safety valve.		
		The instrument should have Safety Warning System		
		Two suitable stackable stainless steel bucket for		
		sterilization .		
		Extra silicone or suitable gasket .		
0	2000	Electric requirement :Single phase , 23 0V , 50-60 Hz.      Variable Program having a street and size 250 kg.	1	Centre for
8	Deep Freezer-20 <sup>o</sup> C	Vertical Deep Freezer, having net capacity 350 ltr, or higher, working temperature ranging from 12°C to-26°C,	1	Biotechnology
		power 230V, single Phase 50Hz, low Noise, Temperature		
		warning light and thermostat, fast freeze button and		
		Lamp, mains warning lamp, built in condenser with fast		
		freeze mode, roller coaster mounted, in built voltage-		
		fluctuation protection, lockable door,		-
		CFC free heavy duty compressor, built-in condenser		
		giving low energy consumption. Compatible		
	8	stabilizer and inverter (only sine wave, digital		
		inverter not acceptable) with one hour back up. Only licensed and authorized system should be quoted		
		with all accessories, minimum one year on-site		
	L	La contraction of the state of		L

r, \$	*v*	warranty, annual maintenance contract details, list		
		of satisfied users, original technical literature and	DINE :	
		operation manual, installation, on-site and in in-lab		
		the state of the s		
		system-application training of all project staff,		
		continuous technical support from qualified service		
		engineers, assurance for prompt supply of essential		
		consumables to conduct analysis with the		
		instrument and compliance statement of		
		specification with deviations clearly marked.		
9	Digestion Chamber With	Size should be approx. width 1.5 m x height 2.4m x	1	Centre for
	Fumehood	depth 0.79m. Thick tempered safety glass vertical-rising		Biotechnology
		sash, and pre-set baffle(s) with flame spread single		
		molded will be preferred. Inner surface should be of		
		fiber glass lining or similar commendable materials.		
		Should have by-pass airflow design, clean sweep airflow	2011	
		opening. Hood should have vapour-proof fluorescent		
	é	lighting. Exterior body of hood should have epoxy-	-	
		coated steel exterior and epoxy worktop to contain the		
		accidental spillage of chemical. Should preferably have		
		removable fronts/side panels and front access panels to		
		plumbing and electrical wiring. The scrubber mounted		
		should also be resistant to long term chemical abrasion,		-
		weathering and withstand high temperature. It should		
	_	be compact, designed to absorb obnoxious toxic gases		
		and vapours immediately as they are formed. It should		
		absorb wide range of acids and alkalies, and should also		-
		be effective in removing dust and aerosol particles. The		
	-	system should be meet the national and international		
		safety standards and should be CE marked Socket with		
	=	switches for exhaust system and fluorescent light; Power		
		point(s) on the panel of the hood To work on 220/230		
	,	volts A.C. Supply Vendor should quote FRP/PVC ducting		
-		non-corrosive blower options to make unit complete		
		and ready to work Requirement of space, electrical and		
		water points etc. should also be indicated. System		*
	E .	should be validated at site during installation. Warranty:		
		≥ 24 months Should provide all accessories necessary for		
		its efficient and smooth functioning. Necessary		
	,	accessories should be quoted as optional. Provide		
		warranty certification, authorization certification,		
		instrument installation, demonstration and time to time	- " "	-
		service when necessary.		
10	Laboratory Hot Air Oven	Temperature range up to 250°C, capacity 252 lt. Doubled	1	Agronomy Section
		walled oven having inside aluminium / stainless steel	-	
		wall, the outside made of mild steel sheet painted which		
	1	is in epoxy powder coating along with wire mesh		
		shelves. The door should also have synthetic rubber		
		gasket. To work on 220/230 volts A.C. supplied with air		
		circulation fan and with thermometer. Further, the		
	,	thermostatic control should be along with accuracy of		
		plus minus 2°C.		
11	Microprocessor flame	Refrigerated centrifuge with temperature display .Max	1	Agronomy Section
	photometer	speed 20000 rpm. Lowest temperature-8°C (0 - 12°C)/		

•	**	(0-10°C). Free maintenance induction motor driven.		
×		Micro-processor control, digital display. Tube capacity, 100ml, 50ml, 30ml and 15ml. Automatically electric lid lock, motor overload protection, gas hinge to prevent door falling, super speed, over temperature protection and imbalance protection. The centrifuge body should be made of high quality steel, safe and reliable, with different kinds of rotors.		
12	Laboratory centrifuge	Refrigerated centrifuge with temperature display .Max speed 20000 rpm. Lowest temperature-8°C (0 - 12°C)/ (0-10°C).Free maintenance induction motor driven. Micro-processor control, digital display. Tube capacity, 100ml, 50ml, 30ml and 15ml. Automatically electric lid lock, motor overload protection, gas hinge to prevent door falling, super speed, over temperature protection and imbalance protection. The centrifuge body should be made of high quality steel, safe and reliable, with different kinds of rotors.	1	Agronomy Section
13	Digital Weigh Bridge for weighing animals	Weighing scale type: Animal Capacity: 500 kg Platform size: 500 s 500 mm Accuracy: 50gm Materials: Steel	1	Farming System Research Project (FSRP) Section
14	Autoclave (Vertical)	Vertical type, capacity: 180 L (55x76 cm), Completely made of stainless steel Steam pressure between 15-20 Psi (adjustable), Fully automatic temperature controller by PID, water level indicator, auto cut off device when water level is low. Handy raise lid lifting device.	1	Soil Science Section
15	Constant Head Apparatus	Permeameter, closed system, one point measuring bridge, with 10 ring holders for sample ring of 60 mm diameter, Filter cartridge for closed system, Glass burette with stop cock, Graduation 0-40 ml, length 51.5 cm, Plastic siphon, Permeameter ring holder for soil sample rings with 60 mm, Filter cloth, 140-150 micron, dim. 90 x 135 cm.	1	Soil Science Section
16	Electronic Balance	Balance is housed in all-metal with protective in-use cover and with a glass draft shield. Weighing capacity 220 g, readability 0.1 mg, linearity ±0.2 mg, pan size 80 mm dia, fully automatic temperature controlled internal calibration (FACT)	1	Soil Science Section
17	Fume Hood	Working table covered with stainless steel (acid resistant) fitted with a wash basin and a gas cock.  Internal size of the hood (L 1200 x D 600 x H 600 mm) with exhaust fan.	1	Soil Science Section
18	Mechanical stirrer for texture analysis	HIGH SPEED STIRRER (Manual) with revolution adjustable to 10.000, 14000 & 17000 rpm, 220V, 50HZ, Complete with cup (of 1 litre capacity), paddle, two numbers of anti-splash baffles, for dispersing soil particles in water. Separate control panel, complete with on/off switch and electric protection for heater.	1	Soil Science Section
19	Room Air purifier	Model: Split Dimension (mm) (W x H x D): (1090 x 300 x 218) indoor; (810 x 568 x270) outdoor Net weight (Kg): (12-15) indoor; (25-30) outdoor. Capacity: 1.5 Ton.	4	Animal Health

n. 6	***	Compressor : Dual inverter compressor with 10 years		
		warranty. Filters : Double filtration systems (Particulate).		
	1	Air swing: 4 way auto swing (horizontal and		
		vertical).Cooling (watts): 5000-6000. Power supply		
	}	(Volt/Phase/Hz): 220-240/Single/50. Power input		
		(Watts): 1760-1850. Running current (Amps): 8.1-8.4.		
		Inverter (Type): Dual inverter. Star rating: 3 or more.		
		Air circulation (in/out) (CFM): 500-560/1200. Noise level		
		(indoor) (dB): 30 or less. Panel display: Digital. Auto		
		clean: Yes. Speed setting: Yes Auto restart: Yes Auto		
		operation : Yes Sleep mode : Yes On timer : Yes Off timer		
		: Yes Warranty : 5 years onsite		
20	Analytical Balance	<ul> <li>Measuring pan of 0.1 mg</li> </ul>	1	Animal Nutrition
		External Calibration		
		<ul> <li>A built in under hook for below weighing</li> </ul>		
		<ul> <li>Easy to read Backlight LCD Display</li> </ul>		
		Tare range upto max. Capacity		
		Multiple Weighing Units		
		Counting Weighing mode		
		Unit Conversion and data output		
		Capacity: 0-220 gm		
		Weight: 5.5 kg	1	

Sd/-DIRECTOR