Sher-e-Kashmir

University of Agricultural Sciences & Technology of Jammu
Central Purchase Committee, Chatha, Jammu (J&K)- 180009

NIT No: AU/CPC/2018-19/04 **Date: 21-02-2019**

Notice Inviting e-Tender

On behalf of the Vice-Chancellor, SKUAST-Jammu, online tenders are hereby invited from the manufacturers, reputed and authorized distributors/ dealers/suppliers for purchase and installation of Machinary and Lab. Equipments.

Date of submission of tender: 21-02-2019 to 13-03-2019 upto 2.00 PM
Date of opening tenders: 13-03-2019 at 3:30 PM

For detailed information, please visit university website www.skuast.org and www.jktenders.gov.in

Sd/
Member Secy. (Equipments)
Central Purchase Committee

No: AU/ CPC/2018-19/660-663
Date: 21-02-2019

Copy to:

1. Chairman CPC, SKUAST-J, Main Campus Chatha
2. Estates Officer, SKUAST-J for uploading on the website www.jktenders.gov.in
3. Incharge Data Centre for uploading on University Website
4. SVC for timely Publishing of NIT in one national daily and two local dailies for wide publicity.

Sher-e-Kashmir
University of Agricultural Sciences & Technology of Jammu
Central Purchase Committee, Chatha, Jammu (J&K)- 180009

NIT No: AU/CPC/2018-19/04 **Date: 21-02-2019**

Notice Inviting e-Tender

On behalf of the Vice-Chancellor, SKUAST-Jammu, online tenders are hereby invited from the manufacturers, reputed and authorized distributors/ dealers/suppliers for purchase and installation of Machinary and Lab. Equipments as per detailed specifications given in Annexure-I

Date of submission of tender: 21-02-2019 to 13-03-2019 upto 2.00 PM
Date of opening tenders: 13-03-2019 at 3:30 PM

Pre-eligibility Conditions:

The Pre-eligibility Bid should be submitted in separate sealed envelope duly superscribed as **Pre-eligibility bid** which should contain the following documents:

i. Copy of GST certificate.
ii. The copy of the relevant ISO/ BIS certificates.
iii. Copy of PAN/GST Card of the firm/ Authorized Dealership.
iv. Copy of Registration of Firm
v. Undertaking of not being blacklisted by any Govt. Agency/ department.
vi. List of clients presently being served (Agricultural Universities/ Educational Institutes/National Institutes/others separately in the last three years) with Contact name & address with mobile no.
vii. Certificate for successful completion of similar nature of work at any other organization.
viii. Bank Details on letter head along with cancelled cheque.
ix. Offers should be accompanied by a DD of Rs.1000/- (non-refundable) in favour of "Comptroller, SKUAST-Jammu" payable at Jammu towards the Tender fee.
x. Offers should be accompanied by a CDR/FDR as specified against each Item (refundable) pledged in favour of "Comptroller, SKUAST-Jammu" towards Earnest Money Deposit. Those firms who have submitted CDRs/FDRs of quivalent amount in response to CPC NIT No. AUJ/CPC/18-19/01, dated 01-10-2018 need not submit again but need to give a request letter for the same.

Terms & Conditions

1. The tenders shall only be entertained on the prescribed form of the University. The tender shall be liable to be rejected if it contains mutilation, overwriting and corrections without due attestation by the tenderer.
2. No tender without earnest money in the shape of CDR shall be entertained. The CDR of unsuccessful tenderers shall be released within one month after the purchase process is finalized.
3. Conditional tenders shall be rejected out rightly.

4. The hard copies of the pre-eligibility documents must reach in the office of the Member Secretary (Equipments), Central Purchase Committee, School of Biotechnology, SKUAST-Jammu, Main Campus, Chatha, Jammu-180009 not later than the specified date and time as stipulated in the NIT.
5. The envelop in which pre-eligibility documents are submitted must be superscribed as “Procurement of Laboratory Equipments with Item No. and name of the item(s) for which tenders have been submitted”.
6. The successful tenderer shall enter into sale agreement on affidavit worth Rs. 100/- as per the terms and conditio ns given in Annexure-III
7. 100% payment shall be made on installation and commissioning of the equipment. However, the tenderer shall have to furnish a performance bank guarantee equivalent to 5% of the total cost of the equipment(s).
8. The quality of the Laboratory Equipment should conform to the highest standards as per relevant BIS/ISO specifications.
6. Tenderers must state categorically whether or not their offer is exact to tendered specifications and indicate deviations, if any, failing which their offer will be ignored.
7. Tenderers shall enumerate the operational experience in similar environment of the equipment offered along with the names, addresses and other references of user’s installations.
8. Late, delayed and incomplete tenders and amendments and additions to the tender after opening of the same will not be accepted.
9. The Tenderers should include in their tender, provision for tools and initial stock of maintenance spares as are essential for proper operation and will ensure maintenance of the equipment/ spares for a minimum period of 15 years. Full particulars of the spare parts should be provided separately.
10. The successful tenderer shall be responsible for erection and installation of the equipment at destination sites and for making it fully operational.
11. The tenderers must provide complete details of space and all infrastructural needs of the equipment which SKUAST-J should arrange before the arrival of the equipment in SKUAST-J to ensure its early installation and smooth operation thereafter.
12. The tenderer shall be fully responsible for the manufacture’s warranty in respect of proper design, quality and workmanship of the equipment (s) accessories etc. covered by the tender for a period of atleast12 months from the date of satisfactory installation/commissioning of the system. The provision for extended warranty with terms and conditions thereof, if any, may also be specifically mentioned.
13. The tenderers shall make provision for imparting training to our scientists/ maintenance staff on operation and use of Laboratory Equipments, its accessories and trouble shooting repair and maintenance. Cost, if any, of such training and the details regarding the course covered and its duration should be specified.

14. The tenderer should enclose a certificate with the tender stating that
    i) The equipment is of the latest technology.
    ii) The equipment may be upgraded as and when required by SKUAST-J and
    iii) The equipment shall be promptly and properly serviced by them whenever desired and such service will remain available to SKUAST-J for 15 years from the date of its installation.
15. Prices should be quoted in the Format as per Annexure – II and must be inclusive of transit insurance, freight, installation and commissioning at destination sites. Discount, if any, should be shown separately. Additional charges on account of Excise Duty, GST, Entry Tax or any other charge / levy must be specifically quoted.
16. The offer should be valid for a period of 180 days from the specified date of opening of the tenders.
17. The tenderers and their authorized representatives are at liberty to be present at the time of opening of the tenders.
18. The competent authority of SKUAST-J does not bind itself/himself to accept the lowest or any tender & reserve the right of accepting the whole or any part of the tender or portion of the quantity offered and the bidders shall supply the same at the rate quoted.
19. The equipment to be supplied shall not pass to the SKUAST-J unless and until the equipment has been delivered, installed / commissioned and accepted, in accordance with the conditions of the contract and to the entire satisfaction of the competent authority of SKUAST-J.
20. The University shall not be responsible for any theft or loss sustained by the tenderer during the period of commissioning/installation. In the event of injury or mishap or illness to any of his worker, the University will not be responsible for any compensation.
21. The tenderer shall be fully responsible for any damage to the University property/ furniture, if any provided to them by the University.
22. The competent authority i.e., Vice-Chancellor, SKUAST - Jammu reserves the right to revise or alter the specifications of the equipment before the acceptance of the tender.
23. All questions, disputes, or difference arising under and out of, in connection with the contract shall be subject to the Courts at Jammu (J&K).

Sd/

Member Secretary (Equipments)

Central Purchase Committee

No: AU/ CPC/2018-19/660-663
Date: 21-02-2019

Copy to:

1. Chairman CPC, SKUAST-J, Main Campus Chatha
2. Estates Officer, SKUAST-J for uploading on the website www.jktenders.gov.in
3. Incharge Data Centre for uploading on University Website
4. SVC for timely Publishing of NIT in one national daily and two local dailies for wide publicity

Annexure-III

Sale Agreement

SALE PURCHASE AGREEMENT

This agreement has been executed on ..... day of ....., 20-- between M/S _____ _____ (hereinafter called the 'Supplier') which expression shall, unless excluded by or repugnant to the context, be deemed to include his executors, representatives, administrators, successors and assigns of the **One Part** and the Vice-Chancellor of Sher-e-Kashmir University of Agricultural Sciences & Technology of Jammu (hereinafter called SKUAST-Jammu) which expression shall unless excluded by or repugnant to the context be deemed to include his successors in office and assigns of the **Other Part.**

WHEREAS SKUAST-Jammu intends to purchase ---------- for the ----------, SKUAST-Jammu for the year 2018-19.

WHEREAS the Supplier has agreed to supply the ---------- required by SKUAST-Jammu ;

WHEREAS SKUAST-Jammu has placed the order for the supply of ---------- with the Supplier / Agent vide No.----------dated .....for placing the direct order with the Foreign Publishers on behalf of SKAUST-Jammu and the Supplier has submitted his willingness in writing for accepting the job of supplying these CD Data Bases;

NOW this agreement witness as follows:

1. The Supplier will make payment form their own source on our behalf for the ---------- ordered with them. Afterwards they will raise their bills alongwith the proof of Bank remittance for the amount of the title paid alongwith the proof of exchange rates prevailing on the date of remittance of the subscription amounts to the publishers concerned alone will be accepted against production of bank memo for verification of conversion rates charged in the invoices. The bills of the Supplier will be processed immediately on its receipt.

2. The Supplier shall provide security deposit if any of the total value of order in the shape of Fixed Deposit for a period of 1 year duly lien marked in favour of Comptroller, SKAUST-Jammu.

3. The Supplier shall provide discount if any on the total value of order for supply of equipment which will be deducted from the bill amount itself.
4. Issues of equipment so ordered shall be delivered at SKUAST-J main Campus Chatha District, Jammu (J&K) which will be subject to verification of correctness of supplies to the order placed.

5. Installation, commissioning and demonstration of the equipment has to be done by the Supplier without charging any additional charges.

6. The Supplier will provide all the facilities such as warranty period mentioned in the quotation and other services needed from time to time for the maintenance of the equipment.

7. The Supplier shall be responsible for the job assigned and provide his own man power and no staff will be provided by SKUAST-Jammu.

8. That the Workers deployed by the Supplier shall be well behaved and should obey the orders of University or anybody authorized on his behalf.

9. Staff deployed by the Supplier shall be staff of the Supplier for all purposes and the SKUAST-J shall have no liability on any account. The Supplier shall be liable to comply with requirement of Labour laws applicable and after termination / completion of the work staff shall have no claim against the SKAUST-J for further engagement or regularization.

10. Supplier shall bear the stamp duty, payable on agreement.

11. The Supplier will work under the overall supervision / directions of the SKAUST-Jammu or any other officer who may be specifically authorized in writing in this behalf.

12. The SKUAST-Jammu reserves the right of terminating the Contract by giving one month's notice.

13. All disputes and differences arising out of or in way touching or concerning this agreement (except the decision whereof is otherwise herein before provided for) shall be subject to the jurisdiction of Courts at Jammu.

In witness thereof the parties hereto have signed this agreement ..... day and the year first above written.

Signature of the approved Supplier (with seal)	**Signature for and on behalf of the SKUAST-Jammu**
1.Witness.	1. Witness .....
Address	Address .....
.....	.....
Dated	Dated .....
2.Witness.	2. Witness .....
Address	Address .....
.....	.....
Dated	Dated .....

NIT No: AU/CPC/2018-19/04 **Date: 21-02-2019**

Sher-e-Kashmir

University of Agricultural Sciences & Technology of Jammu
Head Office, Admn. Block Main Campus Chatha,
Jammu (J&K)- 180009

T E N D E R F O R M

Cost of tender document received vide Bank Draft / Cash Receipt No. _____
Dated _____ for Rs. 1,000/-

Tender for: - Procurement of Laboratory Equipments

Earnest Money amounting to Rs. _____ in the shape of Bank CDR / FDR No. _____ Dated _____ of _____ Bank enclosed.

To,

The Comptroller
SKUAST of Jammu
Chatha, Jammu.

I/We_____S/o.Sh._____
R/o_____Prop.M/s _____
_____hereby tender for Fabrication of Polyhouses at SKUAST-Jammu Main Campus Chatha and declare as under : -

1. That I/We have sufficient experience for supply of laboratory equipments etc .
2. That I/We have carefully gone through the terms and conditions of the NIT and bind myself/ourselves to adhere to the quality and quantity parameters and rates.
3. That the rates quoted in the enclosed tender form have been written by me / us under my/our personal supervision and are firm.
4. That I/We shall be bound by the SKUAST of Jammu's instructions regarding quality and quantity of materials and other condiments.
5. That the revenue stamps worth Rs. 5/- have been affixed by me/us.
6. The rates quoted for each Laboratory Equipment are given as per Annexure-I

Name and address of the tenderer

Annexure-II

FORMAT FOR QUOTING OF PRICES TO Laboratory EQUIPMENTS

NAME OF THE EQUIPMENT_____

S.No.	Specification as per NIT	Specification of Quoting Firm	Name of the Firms with complete address/ Ph. No. Fax, etc	Unit Price (Rs. /€/£/$)	Terms & Conditions
		Deviation if any between the Specification as per NIT and Specification of		(a) cost of total unit _____ (b) Taxes _____ (c) Carrying forwarding, air freight, insurance, transportation charges, etc (item wise) _____ (d) Training cost (if any) _____ e) State Entry Tax if applicable _____ **Total Cost at Jammu** _____	FOR Mode of payment Delivery period Warranty

		Quoting Firm _____ _____ _____			

The prices to be quoted should be equipment wise and separate page should be used for every equipment.

Signature of the tenderer
(With Company Seal)

Annexure-I

List of Equipments/Instruments

Item No.	Name of the Equipment/Instrument	Detailed Specifications	Qty.	Budgetary Provision (Rs.)	EMD (Rs.)
01	Micro Mist Fog Associate	• Automized nozzles • Leakage prevention device • Temperature controller & cycle timer	01	250000.00	5000.00
02	Refrigerated Centrifuge **(Imported)**	• Table top / Bench top • Stores up to 20 routine programs • Maximum speed:500 to 16000 rpm or more • Temperature range: -5°C to 40°C • Fixed angle metallic auto cleavable rotor of capacity (i) 24 x1.5ml/2ml (ii) 6x50ml (iii) 6x15 or 12x15 ml • Automatic over speed and imbalance detection Microprocessor based	01	1200000.00	24000.00
03	UV-Visible Double Beam Spectrophotometer **(Imported)**	Specifications: • Wavelength range 190 nm to 1000 nm • Spectral band width 1.0 nm • Wavelength accuracy ±0.3 nm • Wavelength reproducibility ±0.1 nm • Photometric mode Absorbance, %T, Concentration • Variable wavelength scan • Photometric accuracy ± 0.002 Abs at 0.5 Abs • Photometric range -4 to+ 4 Abs • Storage of measurement data • LED display • Pair of Quartz Cuvettes • 1KVA online UPS with 30 min backup	01	650000.00	13000.00
04	Freeze Drier(Lyophilizer) **(Imported)**	• Microprocessor Controlled Laboratory scale freeze dryer with vacuum pump and facility for lyophilizing the products in vials and ampoules, sealing under vacuum. • Ice condenser performance: Capable of removing at least 1 lit of water in 24 h	01	700000.00	14000.00

		and holding at least 2 lit or more of ice before defrosting. • Total ice condenser capacity: 2 liters or more • Condenser temperature: -75^{0}C to -85^{0}C • Refrigeration : 2x1/3Hp CFC • LC display of system operation and set parameters, viz., ice condenser temp, vaccum time set • Automatic defrosting function. • Ice condensation chamber with high quality stainless steel inner condenser coils and drain valve. • Drying Chamber made of Stainless Steel with at least 12 ports for use of ampoule. • Comprising base plate/adaptor plate, three shelves, and distributors for ampoules/vials. Freeze drying ampoules and vials of 2 to 5 ml capacity (200 Nos must be supplied with the system) • System should have provision to start pump after condenser temp reaches -40^{0}C for safety • Vacuum Pump: High quality corrosion resistant, direct driven, double stage vacuum pump with gas ballast facility and safety valve capable of displacing at least 150 lits air per min for better performance. Pump should include exhaust filter, oil mist and odor filter elements with a spare set. Ultimate Pressure should be at least 2x10^{-3} mbar. • Compact bench top design with small foot print. A trolley with wheels to keep the lyophylizer unit, vacuum pump and accessories. • Complete sealing device for vials and ampoules. • Electricity requirement: 220-240V, 50Hz. • Servo voltage stabilizer compatible with the system.			
05	UV Spectrophotometer	• System should be flexible to handle micro volume, disposable and/or standard cuvettes and should be supplied with quartz cuvette and 200 nos. disposable cuvettes. Cuvette shaft should accommodate conventional quartz cuvette (UV range); Glass / plastic cuvettes (visible range). • Data transfer and analysis should be possible without any additional software. • System should have pre-programmed quantification methods. • Measuring principle: Absorption single-beam photometer with reference beam • Minimum Wavelength range : 200 –800 nm • Light source: Xenon flash lamp • Measuring results (> 1 ,000) can be saved directly on the device • >100 method programs in memory	01	450000.00	9000.00

		• Spectral band width: ~4 nm • Photometric measuring range: 0 A to 3.0 A • Random error: ± 0.5 % • Systematic error: ± 1 % • Light beam height: 8.5 mm • USB Port: 2-4 USB ports for data storage/Transfer, connectivity to PC, Printer etc • System should be supplied with branded Compatible UPS with at least half hour battery backup. • Should have European CE certificate • Warranty: 2-3 years after installation			
06	Leaf Area Meter (Systronix)	➢ Conveyer belt for continuous use ➢ Adjustable press rollers so you can measure thick leaves, up to 2.5 mm ➢ Resolution of 0.1 mm^2 or 1 mm^2 ➢ Sample size for recording leaf area: • Leaf Width: 2 mm to 25.0 cm • Leaf Thickness: Up to 2 cm and can be extendable • Leaf Length: Up to 3 m or more ➢ USB connection along with PC software to transfer data files and to record measurements directly to a computer ➢ Size: 20-25 cm H × 50-60 cm W × 70-75 cm L	01	**700000.00**	14000.00
07	Computers with UPS	-Desktop Computer with InTel Core I3 Processor, 4 GB RAM, 1 TB Hard disk, USB Keyboard and Mouse, 19" TFT display -Double battery UPS -Preloaded Win8	04	200000.00	4000.00
08.	Water Purification System	Water Purification System capable of producing type I (18.2 Mega ohm Resistivity) and Type III with Pretreatment cartridge, Reverse Osmosis, polishing cartridge and 0.22micron final filter. The system is capable of feed water acceptance up to 2000 micro Siemens conductivity, Fouling Index (SDI) < 12, Total Chlorine < 3 ppm. Prefiltration * 1 Stage pretreatment system * 5 micron wrapped type depth filter * Pretreatment cartridge with anti scaling compound Purification activated carbon	01	500000.00	10000.00

			* Pump with unique temperature feedback mechanism. * High flux Thin film composite polyamide RO membrane with 94- 99% rejection. * Permeate divert valve which will divert low quality product water to the drain. * Coaxial resistivity cell with a flow through design and a cell constant of 0.01cm^{-1} * Display both compensated and non-compensated temperature accurate within ±0.1°C. * Type III Water flow rate @ 3 Liters /hr. * Single cartridge will produce (Type 1 + Type 3 Water) Pure and Ultra-pure Water. Storage *An inbuilt reservoir with 6.5 liter capacity. Polishing * Two stage Polishing cartridge with mixed bed ion exchange resin and activated carbon. * Co axial resistivity cell to measure the resistivity of the final product water. * Final product water is dispensed from 0.22 Micron final filter to produce bacteria free water * Colorful graphical display to show the water parameters like resistivity, temperature & alarms. Product water specifications (Type III) Deionized water: Ionic Rejection……... > 94% Organic Rejection……. > 99% Flow rate …….. 3 Liters /hr Product Water specifications (Type I) Ultra pure Water : Resistivity……... 18.2 Mega Ohms TOC ……..…….< 5-10 ppb Bacteria…….< 1 cfu /ml. Particulate.....……..... < 1 /ml. Endotoxin……< 0.001EU/ml RNase……< 0.03ng/ml DNase……< 4pg/µl Flow rate …….. > 0.5 Liters / min.			

<table>
<tr><td>09</td><td>Desktop All- in-One with Printers</td><td>Desktop All-in-One , i3 processor, 4 GB RAM, 1 TB hard disk, Win10
HP Laserjet Printer</td><td>04</td><td>200000.00</td><td>4000.00</td></tr>
<tr><td>10</td><td>Single Plot Wheat Thresher with Electric Motor</td><td>a. Thresher
Threshing cylinder size 12½" Ø 20" long both side cross float 1" Total length 22". Peg cheisel type crossing round peg. Chasis made from 3" x 1½" channel, frame made 50 x 50 x 6mm angle iron, tyre & tube 600 x 19 standard, axle 48mm square.
Power drive with air cooled diesel engine 6 H.P make standard
It is propriety items of Rajiv Farm, Machinery, Hisar as this special type of thresher is only used by Plant Breeding Division of SAU's to maintain Genetic purity of seed</td><td>01</td><td>250000.00</td><td>5000.00</td></tr>
<tr><td>11</td><td>Air Conditioner Split 2 tons with Transformer</td><td>2.0 Ton split AC with copper condenser and suitable 5.0 KV transformer with copper winding delay start</td><td>02</td><td>120000.00</td><td>2400.00</td></tr>
<tr><td>12</td><td>5KVA online UPS</td><td>Wave: Pure sinewave with automatic battery charging with UPS off mode, Type: Single phase online UPS, Input:240±20%VAC, 50±5%, Single phase three wire(Phase Neutral ground); Output: 5 KVA, 230V±10%VAC, 50±5%Hz; Voltage Regulation ≤ ±2%; Overload cap.: 110% for ≤10 minutes, THDI: ≤ 5% on full load with charge mode, Batteries shall be sealed maintenance SMS or VRLA type, Backup not less 4 hrs at Full load with functional test certified & usual manual</td><td>01</td><td>150000.00</td><td>3000.00</td></tr>
<tr><td>13</td><td>Spectrophotometer</td><td>
<table>
<tr><td>S.no</td><td colspan="2">Specification</td><td></td></tr>
<tr><td>1.</td><td colspan="2"></td><td></td></tr>
<tr><td>2.</td><td colspan="2">Optical Design</td><td>Dual beam</td></tr>
<tr><td>3.</td><td colspan="2">Spectral Band width</td><td>2 nm</td></tr>
<tr><td>4.</td><td colspan="2">Light Source Typical Lifetime</td><td>Xenon Flash Lamp (>5 years typical, 3 years guaranteed)</td></tr>
<tr><td></td><td colspan="2">Detector</td><td>Dual Silicon Photodiodes</td></tr>
<tr><td rowspan="4"></td><td rowspan="4">Wavelength</td><td>Range</td><td>190–1100 nm</td></tr>
<tr><td>Accuracy</td><td>±0.5 nm</td></tr>
<tr><td>Repeatability</td><td><±0.2 nm</td></tr>
<tr><td>Scan Speed</td><td>Slow, medium and fast (up to 1600 nm/min)</td></tr>
<tr><td></td><td>Data Resolution</td><td>0.2 nm, 0.5 nm, 1 nm, 2 nm, 5 nm</td></tr>
<tr><td rowspan="4"></td><td rowspan="4">Photometric</td><td>Range</td><td>–2A to +3.5A</td></tr>
<tr><td>Display</td><td>–3A to +5A</td></tr>
<tr><td>Accuracy</td><td>±0.002A at 0.5A
±0.004A at 1.0A
±0.008A at 2.0A</td></tr>
<tr><td>Repeatability[1]</td><td>±0.001A at 1A</td></tr>
<tr><td></td><td>Noise[2]</td><td>≤0.00020A at 0A at 260</td></tr>
</table>
</td><td>01</td><td>383500.00</td><td>7670.00</td></tr>
</table>

					and 500 nm ≤0.00030A at 1A at 260 and 500 nm ≤0.00040A at 2A at 260 and 500 nm			
				Drift[3]	<0.0005A/Hr			
			Stray Light		<1.0%T 198 nm (KCl) , <0.05%T at 220 nm (NaI), <0.03%T at 340 nm (NaNO2)			
			Baseline Flatness		±0.002A			
			Display		7-inch color touchscreen, fixed, high definition, 800 x 1280 pixels			
			Keypad		Touchscreen			
			Sample Compartment		Accessible from top, front or side Able to accommodate cells up to 100 mm pathlength Available accessory for test-tubes up to 25 mm diameter and 150 mm height Removable, washable sample compartment liner with magnetic placement and hold-down			
			Printer		Snap on printer available			
14	Fluoride and Iodine Ion Electrode	Description Range (pH) Accuracy (pH) Range (mV)			pH/ISE/ mV/ORP/Temperature benchtop meter kit with fluoride electrode and solutions, Iodide electrode and solutions, Glass-body pH electrode, ATC probe, stirrer probe and stand -2.000 to 20.000 pH ±0.002 pH ±2000.0 mV		01	480260.00	9605.20

		Range (ORP) Accuracy (mV) Range (ISE) Accuracy (ISE) Calibration Points (pH) Calibration Points (ISE) Range (Temperature) Accuracy (Temperature) Temperature Selection Display Type Log Function Type Memory Alarm Output Methods Inputs Outputs Power Supply IP Rating Relative Humidity Range Certifications/Compliance Warranty	±2000.0 mV ±0.05% of reading 0.0001 to 19900 with selectable units of ppm, Molar, mg/L, %, ppb ±0.2 mV or ±0.05 % of reading 1 to 5 1 to 5 -5.0° to 105.0° C ± 0.1°C Manual or automatic with ATC temperature probe Graphic LCD with backlight Automatic data logging with Auto-Read and Timed measure modes; manual data logging with Continuous measure mode 2000 with date and time stamp High/low limit alarm, calibration due alarm 10 per channel with password protection BNC (pH, ORP or ion selective electrode), pin-tip (reference electrode), 8 pin MiniDIN (ATC temperature probe), stirrer input (stirrer probe) USB, RS232 Universal AC adapter (included) IP-54 5 to 85 %, non-condensing CE, TUV 3-1 3 years meter warranty			
15	Water Bath Ultrasonic	Capacity Frequency Heating Power consumption total Ultrasonic peak power max SWEEP mode	2- 3 Liters 37 kHz + 10 to 80 degree Celsius ±5 350 W 300-500 W Present for enhanced cleaning	01	112100.00	2242.00

		DEGAS mode: Present for fast and efficient degassing of liquids. NORMAL mode: Dissolving, mixing and dispersing Display time & temperature: LED light Drain duct: Easy draining of cleaning liquid Warranty: 1 Years Accessories: Cover and Basket			
16	Monopan weighing balance	Capacity: 220 g Minimum Display: 0.1 mg Repeatability (Standard Deviation): ≤0.1 mg Linearity: ± 0.2 mg Stabilisation Time[*1]: Approx. 3.0 seconds Operating Temperature and Humidity Limits: 5-40˚C 20-85% [*2] Temperature Coefficient for Sensitivity (10-30˚C): ± 2 ppm/˚C Pan Size (mm) approx: Ø 91 Main Body Dimensions (mm) approx: 213 (W) × 356 (D) × 338 (H) Main Body Weight (kg) approx.: 6.2 Power Requirement: 12V, 1A Internal Calibration Options Description EP-110 Printer I/O-RS cable Protection Cover STABLO-AP Ionizer USB conversion kit	01	174080.00	3481.60
17	ELISA Reader	• Wave length 400-750nm • Photometric methods single or dual wavelenth • Bandwidth 10nm • Photometric range 0.0-3.5OD • Resolution 0.001OD • Light source Tungsten halogen lamp [20W], 3000hr average lifetime • Linearity ≤ 1.0 % from 0.0-2.0 OD; ≤ 2.0% from 0.0-3.0 OD • Accuracy ± 1.0% or 0.010 from 0.000-3.000 OD AT 490nm • Reproducibility 1.0% or 0.005 OD from 0.0-2.0 OD; 1.5% from 2.0-3.0 OD • Photodetectors silicon photodiodes; 8 measurement 1 reference • Filters 8 position filter disk • Read time fast mode; 6 sec at single wavelength, 10 sec at dual wavelength, step mode: 15 sec at single wavelength, 25 sec at dual wavelength	01	350000.00	7000.00

		• Plate shaking 3 speeds: low, med, high; duration: 0-999sec • Plate types: 96 well microplate; maximum plate height : 16mm • Warm up time 3 min • Interchannel variation ≤1.0% or 0.005 from 0 to 3.0 OD • Stability and drift [at 490nm] ≤0.010 OD at OD= 1 at 490 nm single wavelength • Data output onboard graphical thermal printer and USB2 interface with PC or Mac data stations • Data storage calendar/clock function; 64 assay protocols • Multilanguage support 4 language ROM capacity; LCD indication supported; printout report supported • Dimensions [WxDxH] 34.6x37.7x16.4cm [13.6x14.8x6.5”] • Weight 5.5kg[12lb] • 3 years comprehensive warranty			
18	Thermomixer	• Max speed 3000rpm • Max temperature control range 100 deg C • Min temperature control range 15deg C • Temperature setting 1deg-100deg C • Timer 15 sec- 99 hours, continuous • Dimensions 20.6x30.4x13.6cm • Weight 6.2-6.5kg • Power supply220-240V,50-60Hz • Three year warranty required	01	300000.00	6000.00
19	Vertical gel electrophoresis unit with power pack and electro transfer unit	**A. Vertical gel electrophoresis** I. 10 well II. 1.0mm thickness; 2 gel system includes 5 combs,5 sets of glass plates, casting stand, 2 casting frames, sample loading guide, electrode assembly, tank, lid with power cables, mini cell buffer dam III. Glass plate size [WxL] short plate 10.1x7.3cm, spacer plate 10.1x8.2cm IV. Gel size [WxL] 8.3x7 cm V. Typical run times for SDS PAGE 35-45min [at 200V constant] VI. Dimensions [WxLxH] 12x16x18cm VII. Weight 1.0kg VIII. 3 years comprehensive warranty **B. Power pack** I. Output range : 5-250V, 0.01-3.0 A current, 1-300W power II. Type of output[with automatic crossover]: constant voltage, constant current or constant power III. Timer 1min-99hr,59 min	01	210000.00	4200.00

		IV. Display: 16 characterx 2 line LCD V. Programmable methods: 1 method up to 3 steps, no storage capacity VI. Safety features: overload/ short –circuit detection; overvoltage protection; no load detector sudden load change detection; ground leak detection VII. Operating conditions : 0-40^{0}C, 0-95% humidity VIII. Number of output jacks: 4 sets in parellel IX. Input power [actual]: 90-120 or 198-264VAC,50/60Hz, autoswitching X. Dimensions[WxDxH] : 25.0x28.5x8.0 cm XI. Weight : 2.0Kg XII. 3 years comprehensive warranty **C. Electrotransfer unit** I. Construction • Electrode module: Molded polysulfone • Gel holder cassettes: Molded polycarbonate • Electrodes: Platinum wire 0.254 mm diameter • Cooling unit: Polyethylene II. Overall dimensions • Trans-Blot cell : 16 (L) x 12 (W) x 18 (H) cm • Gel holder dimensions : 10 x 11 cm • Maximum gel size : 7.5 x 10 cm • 2 gel holder cassettes, • 4 fiber pads, modular electrode assembly, blue • cooling unit 3 years comprehensive warranty			
20	96 Well Gradient Thermal Cycler	Specifications: 1. The 96 well Gradient thermal cycler should be supplied with Power Cord, Support ring for individual tubes, and Instruction Manual 2. Specifications: 3. Operational: 4. Should have a gradient capacity with Dynamic ramping: - Method of heating/cooling- Peltier - Method of temp monitoring- Calculated & Block - Programming:Step-based graphical - Reporting: Exportable run logs, system logs - Instant Incubation: Yes - Memory: 500 typical programs onborad; unlimited with USB flash drive expansion - Communication : 1 USB port - Electrical Approvals : IEC , CE	01	325000.00	6500.00

		- Display: 5.7" VGA color touch screen - Operating Temp : 15-31 deg C ambient - Alphanumeric LCD Display. 5. Performance: - Sample capacity/sample size: 96 wells x 0.2ml (tube strips or 96-well plate) - Temp Range- 4 to 100 deg C - Accuracy- +/- 0.5 deg C - Uniformity- ±0.5°C well-to-well within 30 sec of arrival at target temperature - Oil free Heated lid - Up to 110 deg C - Maximum Ramp Rate - Up to 4.0 deg C / s - Average Ramp Rate - Up to 2.5 deg C / s - Reaction Volume: 1 to 100 µl 6. License: - Licenced PCR : Yes - IVD License: Yes - Thermal Gradient - Gradient capability: Yes - Gradient Accutracy: ±0.5°Cof programmed temperature - Row uniformity: ±0.5°C well-to-well (within row) within 30 sec - Gradient range: 30-100°C - Temperature Differential Range: 1-25°C 7. Faster Optimization - Thermal gradient technology should optimize PCR assays in a single run by simultaneously testing eight different temperatures across a range of 25°C. - The system should adjusts the cycler ramp rate, ensuring that the incubation times across the eight rows during a gradient step are identical - More Efficient - System should compatible with reusable sealing mats to help minimize consumption of disposable plastics. - The power save mode automatically shuts off the display when the cycler is idle. - System should have automatic recovery in case of power failure. - 1 kva online ups UPS with 30 minutes back up should be provided. - 1 pack of 120/8 tube strips with caps should be provided. - Warranty- 3 years from the date of installation should be provided.			

21	Automated Cell Counter	1. Automated Cell Counter -Count cells quickly, accurately, and consistently within 30 sec using the built-in auto-focus. 2. Should have Autofocus technology and sophisticated image analysis algorithm to eliminate the subjectivity of manual cell counting. 3. To be able to Counts cell lines, primary cells (from tissue or blood), and stem cells. 4. Should have Cell Gates, On-board dilution calculator, USB port, Date storage: approx-100 Counts, Sample volume: 10µl, Cell diameter range: 6-50 microns; Cell concentration range: 5x104 - 1x107 cells/ml. 5. Counting chamber depth: 100µm; Optimal cell concentration range, cells/ml-1 x 10^5 to 5 x 10^6 6. Product should have 2 years warranty.	01	**312000.00**	6240.00
22	Bio-safety Cabinet, Class II Type-A2	1. Microprocessor controlled Biological Safety Cabinet with single piece Stainless 2. Steel 304 work surface and dimension of 4'x 2'x 2'. 3. Side & back wall made up of single piece stainless steel 304 with rounded corner for easy cleaning & disinfections procedure. 4. Bio-safety Cabinet Class II type A2 i.e with 70% re-circulation and 30% exhaust. 5. Front 10º slanted to offer operator comfort while working for long time. 6. Frequency controlled drive based dual fan motor system for each separately for laminar flow and exhaust. 7. The motor must automatically adjust the airflow speed without the use of damper to ensure continuous safe working conditions. 8. 6 mm UV resistant front glass window with adjustable balancer suspension. 9. Equipped with anti-explosion, anti-splash power socket, water/media and Gas inlet. 10. ULPA/HEPA-14 filter with efficiency more than 99.9995% of 0.12µm / 0.3µm. 11. Filter lifespan display function with filter real-time alarm function. 12. Display screen should provide information about Air exhaust value, Laminar flow value, real time counter for exhaust & laminar fan , UV elapse hour counter and Filter lifespan. 13. Safety alarm for low exhaust, low laminar flow, fault of exhaust fan, fault of laminar flow fan, closing condition of visible window. 14. UV interlocking with front window i.e UV light should be closed automatically when front window is open. 15. Standard compliance EN 12469 Certified / NSF for Microbiological safety or equivalent, ISO 14664.1 class 3 for air cleanliness or equivalent.	01	350000.00	7000.00

		16. The manufacturer an ISO 9001 –2000 certified. 17. Power supply 220V, 50/60Hz. **18.** Warranty for 2 years.			
23	Ultra-low temperature Freezer (-86 °C), Upright model	19. Freezer should be of 550 to 600 Liters capacity 20. System should have Programmable operating temperature from –50°C up to –86°C with 1°C increment 21. Fully programmable microprocessor controlled with membrane keypad and eye level control panel. 22. Construction should be of Polyurethane foam insulation. 23. System should be made up of 18 gauge Steel, 1.2 mm thick with powder coated paint to resist scratch and rust and the interior should be Polished with 304 SS for easy cleaning and to eliminates potential for oxidation. 24. Inner door should have silicone seal to prevent temperature loss and Outer door should have safe silicone triple point seal 25. Freezer should have 4 adjustable shelf's with five separate inner doors. 26. Ambient to -85 C pull down timing should be not more than 5.5hrs 27. Freezers should have heated air vent and front panel air filter. 28. Should have security keyed locks on the outer doors and lids keep out unauthorized users 29. Freezer must have battery back-up and Password security lock for unauthorized tampering. 30. Freezer must have RS 485 interface data logging port and it must also have on board 31. diagnostic software. 32. Audible and visible alarms for temperature, power failure, system failure, battery low etc. 33. and it also have remote alarm port for connection to an auto dialer. 34. Freezer must use CFC-FREE, HCFC-FREE non-flammable refrigerants, and refrigeration system must be energy efficient and hermetically sealed two stage cascade refrigeration system. 35. Freezer must have ISO 9001 standard quality test requirements and IEC 61010 Electrical safety CE & UL certified. 36. Freezer should be European CE Certified. 37. Freezer should have a capacity to withhold 40,000 or more vials of 2ml. 38. Freezer should be supplied with Factory calibrated certificate and IQ, OQ, PQ should be provided. 39. Power Consumption should not more than 15kWh/day. 40. Heat Output should not more than 450Watt. 41. Freezer should be supplied with 5KVA voltage stabilizer.	01	600000.00	12000.00

24	Immunomagnetic Cell Sorter	1) Immunomagnetic cell separator and should be gentle to cells. 2) Can able to perform Immunomagnetic cell sorting of cells including rare cells population. 3) Capable to do positive selection and negative selection of cells. 4) Should use particles which should not interfere in any downstream applications (for example – flowcytometry & function studies) 5) System is capable to isolate up to 0.1 to 2.5 x 10^8 cells when isolating rare cells per separation. 6) Cell Separation System should be column free 7) System should capable to release magnetic particles after cell separation. 8) Product should supply with minimum 3 years warranty.	01	165200.00	3000.00
25	Online UPS 5KVa	1. UPS Capacity = 5KVA Online with Isolation Transform 2. Input Voltage range = 160V – 280V AC 3. Frequency = 50Hz ± 0.05Hz 4. Output Voltage = 230V ± 1% 5. Waveform = Sine wave 6. Battery Bank = 144V/180V DC 7. Metering = Digital 8. Static Bypass = Available 9. Back up Time = 1 hr.	01	100500.00	2000.00
26	**CCTV surveillance system**	**CCTV surveillance system for an area of 2 x (70 ft x 20 ft)**	01	240000.00	4800.00
		1. Imaging device: HD Camera (16 or more cameras) • 2M CMOS, Full HD (1,920 x 1,080, 30fps) resolution • Day & Night (ICR), Auto (ICR) / Color / B/W, DWDR, SSNRIV, Motion detection • 0.25Lux@F2.1 (Color), 0Lux@F2.1 (B/W : IR LED on) • Built-in 3.6mm or higher mm fixed lens • IR viewable length 20m, IP66 • Easy installation (Plug & play) • Operating Temperature / Humidity: -30°C to +55°C (-22°F ~ +131°F) / 90% RH **2. HD Real-time DVR** • 16CH 1080p real-time DVR			

		• Upto 480/400(1080p)fps recording time • HDMI / VGA video output • Smart phone support (Android / iOS) • LiveDisplay i. Frame Rate NTSC : 480fps / PAL : 400fps ii. Resolution NTSC : 1920 x 1080, 1280 x 720, 960 x 480, 704 x 480 iii. PAL : 960 x 576, 704 x 576 • Multi Screen Display 1 / 4 / 7 / 9 / 13 / 16 / 16A / Sequence / PIP • Storage a. Internal HDD Up to 8 SATA HDDs b. 8 TB storage capacity c. External (e-SATA Interface) 2 ports d. USB (Backup) USB 2.0, 2 ports (Front 1, Back1) e. File Format (Backup) BU (DVR player), SEC (Include player), AVI • Interface a. Monitors i. VGA 1 VGA (1280 x 720, 1280 x 1024, 1920 x 1080) ii. HDMI 1 HDMI (1280 x 720, 1280 x 1024, 1920 x 1080) b. Alarm i. Inputs / Output Terminal 16 inputs (NO/NC) / Terminal 4 relay outputs (NO/NC),Rating : 30V DC / 2A, 250V AC / 0.25A ii. Remote Notification via e-mail c. Connections i. Ethernet 1 RJ-45 10/100/1000 Base-T ii. Serial Interface RS-232/RS-485 (Full duplex) for PTZ, system keyboard iii. USB 2.0, 2 ports iv. Support Mouse, Remote controller **3. Essential Accessories** • Power supply: 12v 20 Amp-(SMPS) • Wired (full copper) connectivity • UPS 2KVA online • LED display monitor (24 inch) of repute brand • External hard disk (1TB): 02 No. • Branded desktop computer (8GB RAM, 1tb Hard disk) for analysis and editing of videos. **4. Warranty**: At least 3 year.			

		5. Authentication: CE certification **6. Service and support:** The Vendor should have a good service and application support back up			
27	High Performance Storage Server with Software –	**S. No.** / **Parameters** / **Specifications** 1 Software: Windows 2 Form Factor: Tower 3 Processor Make: Intel 4 Max. Number of sockets available on chipset: 2 5 Max. Number of sockets populated with processor: 1 6 Number of core per Processor: 8 7 Processor Configuration: Intel Xeon Silver 4110 (2.10GHz/8-core/11MB/85W) 8 Chipset compatible with CPU: C622 9 PCI Slots (Express Gen 3.0): 6 10 Type of RAM: DDR4 11 RAM Size (GB): 32 12 RAM upgradable upto (GB): 756 13 DIMM Slots (No.): 12 14 Type of Hard Disk Drive: RAID 15 Hard disk drive Capacity (GB): 4000 16 Hard disk drive Speed (RPM): 10K 17 RAID Controller Cache (MB): 1024 18 RAID Type: 0 19 RAID Controller Ports @12 Gbps: 8 20 Video Controller (support VGA or above resolution): Yes 21 Monitor: 21 Inch LED (DELL) 22 Keyboard: Yes (DELL) 23 Mouse: Yes (DELL) 24 Bays (min. 2 internal or more hot plug): 8 25 USB Ports (version 2.0/3.0): 4 26 Certifications Compliance support by Windows, Red Hat or Novell or Oracle Cluster S/W: Yes 27 DVD ROM (or better): 8x or better 28 Network Card Supported: 1G	01	480000.00	9600.00

		29	Power Management	Screen blanking, hard disk & system idle mode in power on, set up password, power supply surge protected			
		30	Redundant Power Supply	Yes			
		31	Redundant Fan	Yes			
		32	Total No of Ports	4 x 1 Gbps			
		33	Server scalability to be achieved within the box without adding nodes	Yes			
		34	RoHS Compliance	Yes			
		35	BIS Registration number & its Validity	R-41000698			
		36	Max. power consumption of the system (Watt)	750			
		37	Power Supply	230 V +/-10%, 50 Hz			
		38	On Site OEM Warranty (years)	3			
28	High performance computer Cluster with software	**S. No.**	**Parameters**	**Specifications**	01	450000.00	9000.00
		1	Software	Windows			
		2	Form Factor	Tower			
		3	Processor Make	Intel			
		4	Max. Number of sockets available on chipset	2			
		5	Max. Number of sockets populated with processor	2			
		6	Number of core per Processor	8			
		7	Processor Configuration	Intel Xeon Silver 4110 (2.10GHz/8-core/11MB/85W)			
		8	Chipset compatible with CPU	C622			
		9	PCI Slots (Express Gen 3.0)	6			
		10	Type of RAM	DDR4			
		11	RAM Size (GB)	32			
		12	RAM upgradable upto (GB)	756			
		13	DIMM Slots (No.)	12			
		14	Type of Hard Disk Drive	SSD			
		15	Hard disk drive Capacity (GB)	1000			
		16	Video Controller (support VGA or above resolution)	Yes			
		17	Monitor	21 Inch LED (DELL)			
		18	Keyboard	Yes (DELL)			
		19	Mouse	Yes (DELL)			
		20	Bays (min. 2 internal or more hot	8			

		plug) 21 USB Ports (version 2.0/3.0) 4 22 Certifications Compliance support by Windows, Red Hat or Novell or Oracle Cluster S/W Yes 23 DVD ROM (or better) 8x or better 24 Network Card Supported 1G 25 Power Management Screen blanking, hard disk & system idle mode in power on, set up password, power supply surge protected 26 Redundant Power Supply Yes 27 Redundant Fan Yes 28 Total No of Ports 4 x 1 Gbps 29 Server scalability to be achieved within the box without adding nodes Yes 30 RoHS Compliance Yes 31 BIS Registration number & its Validity R-41000698 32 Max. power consumption of the system (Watt) 750 33 Power Supply 230 V +/-10%, 50 Hz 34 On Site OEM Warranty (years) 3			
29	SomaScope Smart Somatic Cell Counter	Technology: Fluorescence flow Cytometer Milk samples: For fresh or preserved cow, sheep, goat, buffalo, and camel milk Measuring range: From 0 to 1 x 107 cells/ml Measuring speed: >100 samples per hour Repeatability (CV*): <7 to 3.5% at 1 x 105cells/ml <5 to <2.5% at 3 x 105 cells/ml < 4 to <2% between 0.5 x 106 cells/ml Accuracy (CV*): < 10% relative to Direct Microscopic Somatic Cells Count Linearity: Up to 1 x 107 cells/ml Sample volume: <10 ml Sample temperature: +40°C ± 2°C (+104°F ± 35°F) Carry-over: < 1% Configuration: Integrated flow cytometer unit Integrated sample preparation unit Automatic cleaning system Double photo detector multiplier system	01	3600000.00	72000.00

			Computer with Somatic cell count software Reagent bottles Ethernet communication port Spare part kit for first 6 month User manual			
		Power supply: Light source Consumables Standards/ approvals:	110 V-240V, 50 to 60 Hz, 150 VA incl. PC LED Cleaning liquid Measuring liquid Staining solution Somatic cell count pilot kit Somatic cell count calibration kit Complies with ISO 13366/IDF 148-2 and international standards			

Sd/
Member Secy. (Equipments)
Central Purchase Committee