



कुमाऊँ विश्वविद्यालय, नैनीताल (उत्तराखण्ड)

KUMAUN UNIVERSITY, NAINITAL (UTTARAKHAND)

पत्रांक- केयू/वि०नियो०/रूसा-जन्तु/2020/265

दिनांक- 04/12/2020

सेवा में,

मै० समस्त पंजीकृत आपूर्तिकर्ता  
(प्रयोगशाला/वैज्ञानिक उपकरण)  
कु०वि०वि०, नैनीताल

महोदय,

कुमाऊँ विश्वविद्यालय के डी०एस०बी० परिसर स्थित जन्तु विज्ञान विभाग हेतु संलग्न सूची के अनुसार प्रयोगशाला उपकरण क्रय किये जाने हैं (सूची संलग्न)।

अतः आपसे अनुरोध है कि संलग्न सूची में अंकित विशिष्टीकरण के अनुसार सामग्री/उपकरणों की कोटेशन दरें दिनांक 21.12.2020 को अपरान्ह 3.00 बजे तक अधोहस्ताक्षरी के कार्यालय में दस्ती, स्पीड पोस्ट, पंजीकृत डाक अथवा कोरियर द्वारा उपलब्ध कराने का कष्ट करें, जो कि उक्त तिथि को ही अपरान्ह 4.00 बजे अधोहस्ताक्षरी कक्ष में खोले जायेंगे।

संलग्नक- उपरोक्तानुसार।

✓ प्रतिलिपि: श्री के.के. जोड़े आई.पी.एन.डी. आर.के.  
वि०वि० की वेबसाइट में प्रकाशनाथ।

भवदीय

  
कुलसचिव

**List of Requirements:**

S. No.	Name of the Instrument	No. of Unit	Technical Specification
1.	UV torch	1	Hand Held UV Lamp with 254 and 365 nm, 14 3/4 x 3 x 2 1/2 Inches
2.	Magnetic Stirrer	1	Capacity: 500ml Speed range: 1250rpm Maximum Temp: 100°C Digital Display Top-Plate: 18 x 18cm
3.	Cryo-storage Container	1	High-strength aluminum alloy structure; Multi-layer thermal isolation design; Optional locking cover to protect stored biological samples; Protective jacket to prevent collision; Capacity:10L, Mouth Diameter: 50mm, Outside Diameter: 305mm, Height:530mm, Empty weight: 6kg,
4.	Vacuum filter with vacuum pump	1	<b>Glass Vacuum Filter Holder Set:</b> Materials: Borosilicate glass funnel, base and tubulated cap; anodized aluminum spring clamp; fritted glass filter support. Filter Diameter: 47mm. Filtration Area: 9.6cm <sup>2</sup> . Funnel Capacity: 300ml. Flask Capacity: 1000ml. Outlet Fitting: 6mm (1/4") O.D. tabulated cap sidearm to vacuum <b>Vacuum pump:</b> The oil-free piston design allows each pump to come with a 2-year or 3000 working hour guarantee. vacuum pumps: quiet , compact and vibration free
5.	Camera Accessories (Lenses and Tripod)	1	<b>Lenses:</b> The maximum aperture is displayed with a "f/" or "1:" prefix, e.g. "f/2.8" or "1:2.8". The lower the f-number the faster the lens. A lens with an f-number of F2.8 or below is "fast". <b>Tripod:</b> Weight including the Ball head (28mm large ball): 2.99lbs, lighter, maximum height (52.4" (1330mm), 62" (1560mm), 16.1" (410mm). Powerful and quick flip leg lock, Spring self-locking tube angle adjustment knob, only need to press, release, and quickly adjustable angle 360-degree scale at the bottom of cloud platform.
6.	Binocular	4	<b>Full-size:</b> Objective lens size is greater than 40mm (8x42, 10x50, etc.) <b>10-power binoculars:</b> A closer, more detailed look, Water resistance as "waterproof", Rubber coating, Fog-proof, Diopter and Center controller. With leather cover.
7.	Microtome	1	Semi automated Section thickness setting: 0-500micron Section thickness range: 0.5-100 micron Section thickness setting: 0-500 micron Vertical specimen stroke: 60mm Dimension: 19" x 17" x 10" User selects High Profile or Low Profile Blade Holder, <b>1-Year Warranty</b>
8.	Electrophoresis- Maxi (Vertical)	1	Basic unit includes anode and cathode chamber cum heat exchanger (1 No.), rubber gasket fixed (2 Nos.), Platinum electrodes anode and cathode fixed centrally (2 Nos.), Glass plates notched and rectangular (2 sets),

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			20-well Teflon comb 0.5mm (2 Nos), 1.00 mm (2 Nos.), Teflon spacers 0.5mm (4Nos.), Teflon spacers 1.0mm (4 Nos.) Acrylic clamps and Screws (4 sets), Levelling screws (3 Nos.), Lid (1 No.), and connecting cord (1 Set.)
9.	Electrophoresis- Maxi (Horizontal)	1	Platinum Electrode Assembly removable (2Nos.) Gel running tray 200X200 mm (1No.), 26 well combs 1.5 mm (1No.), 3 well Preparative combs 3.0 mm (1No.), 3 well Preparative combs 6.0 mm (1No.), Lid (1No.) connecting cord (1No.)
10.	Electrophoresis- Maxi (Power Pack)	1	Voltage: 500V, in 1 V steps Current 500mA in 1mA steps Power: 300W Display :LED Output Modes: Constant voltage or current Output Jacks: 4 in parallel, 4mm Indore Use: 4-40°C
11.	LCD Projector	2	Vivibright F30Led Projector Display type: LED Projection Distance: 1-3.5m Resolution: 1920*1080 P Lamp Life: 50000 Screen size: 200 inches Brightness: >4000 Lumens
12.	Lab Aquarium with accessories	1	Tank capacity 20 L, Tank body and lid molded in certified blue coloured plastic to reduce the growth of algae at tank level, V-channel bottom, Tanks and all components are autoclavable, Autoclavable nets (8L), Multiple life stage baffles (300, 500 and 800 micron), easy to clean with Air pump.
13.	Digital Probe Soil Thermometer	2	Luster Leaf 1625 Digital Soil Thermometer Temperature range: 35-75° Stem size: 5-7inches Waterproof
14.	Automated Autoclave	1	Chamber Volume: 52 Litres Shape: Vertical; Temperature: 121-125 Degree Celsius; Pressure Range (psi): 15psi; Power Consumption (KW):2-6KW; Fully Automatic; heavy Gauge & Argon Walled; Voltage: 230 Volts; Size in CMS: 35 x 55 CMS.
15.	Incubator Shaker	1	Bench Top Orbital Shaking Incubator Power- 1100W Time Range: 1-99hr Display resolution: 0.1 degree Shaking speed: 20-300rpm Amplitude: 20mm
16.	Refrigerator (4° C)	1	Door Material Glass Capacity 200 Ltrs

			Number of 3 Shelves Dimension 533* 533* 1575 mm
17.	Vortex Mixer	2	Dimensions 185 x 150 x 165 mm Weight 2.8 Kg Protection IP 21 Power 32 W Shaking Orbital
18.	Tissue Homogenizer (Variable Rotor)	1	High Speed Homogenizer with 1/8HP Motor, Digital Speed Indicator & transformer speed regulator Spare Homogenising Cup with Rod 5ml or 10ml capacity 15ml or 25ml capacity 50ml or 100ml capacity
19.	UPS	1	5.5 KVA with 2 hr backup
20.	Gel Shaker	2	Shape: Square Capacity: 10kg Phase: Single
21.	Double Distillation assembly	1	Laboratory grade Material :Borosilicate Capacity: 2-4Ltr. Features: distillation with auto cut off system
22.	CO <sub>2</sub> Gas Cylinder with regulator	1	Industrial Grade, Size: 31kg, Purity: 99.995, Gases Offered: food grade, fire grade, welding grade and others, Minimum order quantity: 50 Kilogram
23.	Desiccator Vacuum	1	Diameter mm: 250 With Accessories, Removable stopcock accepts: 1/8 to 1/4 in. I.D. tubing, Holds a vacuum: 28 in. Hg (711 mm) for 24 hours, Max clearance above plate: 195 mm.
24.	Haematology Analyzer	1	<b>FUNCTION:</b> 25 parameters with 3 color histograms (WBC,RBC ,PLT) <b>PARAMETERS:</b> WBC , RBC, HGB ,HCT ,MCV ,MCH, MCHC , PLT , LYM % ,LYM # ,GRA %GRA# ,MID % MID #, PDW , MPV , PCT , RDE -CV ,RDW - 3D ,PLCR, RCDW, LCDW and WBCRBC, PLT, THREE HISTOGRAMES. <b>SAMPLE VOLUME:</b> Anticoagulant Whole blood = 9.6µL, anticoagulant capillary blood = 9.6µL, prediluted capillary blood = 20 µL. <b>THROUGHPUT:</b> Two Chambers with 60 Tests / Hour. Internal high -speed thermal printer.
25.	Biosafety Cabinet	1	Filter: HEPA filter 99.99% efficient Particle Retention: 0.3 micron Light: Fluorescent light Light intensity: 90-120 foot-candles Controller: Microprocessor controller with digital display Front door: Frameless auto sliding glass door Blower assembly: 1/3 HP, Single Phase, 1440RPM motor Capacity 1000CFM, Pressure 30mm WG Exhaust assembly: 300CFM, ducting by PVC pipe with rain guard

26.	Biochemical Analyzer	1	Fully Automated, random access chemistry analyzer Throughput: 400 tests/hr Must have direct ISE Unit for Na, K and Cl ISE electrode should last for 6 months/1 year Must be open ended system Should have 12-16 wavelengths (280-700nm) Minimum reaction volume 150µl built in/stand alone Laundry system with minimum 5 step washing Separate reagent probe for R1 and R2 and sample Should have external and internal probe cleaning facility
27.	Kjeldahl Digestion and Distillation Unit	1	Maximum working temperature: 350°C Unit of 6 tests Flask: 30ml, 50ml, 100ml Heating element Heater watt: 200 watt Construction: MS powder coated Others: Glass ware, Clamps, Lead fume duct and Condenser rack Power supply: 220 volts 50Hz
28.	Flame Photometer	1	Operation Condition Temperature: 10°C-35°C Humidity: 85% max Highly prone to self-absorbance in the flame above a concentration of 10ppm Specificity: Na, K and Li interference is <0.5% Aspiration rate: 3-6 ml/min Speed of Analysis: Time to stability 0.20Volts FSD
29.	Software	1 each	<ul style="list-style-type: none"> <li>• Animal Simulator software (Animal Model): ) Xcology Pro and Expharm pro)</li> <li>• Human Physiology (BIOPAC)</li> <li>• Molecular Biology</li> <li>• Software for statistical analysis: SPSS (IBM Base v26)</li> <li>• M.S. Office (latest version)</li> </ul>
30.	Soil Analysis Kit	2	Soil test kit (K054)
31.	Water analysis Kit	2	Water analysis Kit Multiple parameters check
32.	Surgical kit	1	Fully equipped, Lightweight, Easy to carry
33.	Bacterial DNA Isolation Kit	2	100 reactions kit
34.	Biochemical test kit 20kt (for Bacterial Identification)	5	To identify Enterobacteriaceae species. (Each kit should contain material sufficient for 10 tests)
35.	Biochemical	5	To identify Gram-negative species.

	test kit 20kt(for Bacterial Identification)		(Each kit should contain material sufficient for 10 tests)
36.	Biochemical test kit 20kt (for Bacterial Identification)	5	To identify Gram-positive species. (Each kit should contain material sufficient for 10 tests)
37.	Bilirubin Assay Kit	1	200 colorimetric tests(Reactions) Storage temp:2-8°C
38.	Computer	1	For NGS 1Quad core Intel Xeon CPU: 3GHz, 8GB RAM and 200 GB of Local HDD storage For 200 samples: 2 Quad core Intel Xenon CPU: 3GHz, 16 GB RAM and 200 GB of local HDD Additional: Color Printer and UPS (2 hr backup)