



# GOVT. COLLEGE OF ENGINEERING, AMRAVATI

Kathora Naka, Amravati – 444 604 (M.S.)

(An Autonomous Institute of Govt. of Maharashtra)

“Towards Global Technological Excellence”

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No: GCOEA/Physics Department/Purchase /2022-23/245

Date: 13-01-2023

## QUOTATION CALL LETTER

**Subject** : - Quotation for supply of Following Items For the department of Physics

**Ref** : - 1. जा.क्र. शाअमअ/भौतिकशास्त्र विभाग/२०२२/१६८, दि.१९/०३/२०२२  
2. Nano Science & Nanotech. Lab. जा.क्र. शाअमअ/भौतिकशास्त्र विभाग/२०२२/२०१, दि.२१/०६/२०२२  
3. जा. क्र. शाअमअ/लेखा/परिपत्रक/२०२१-२२/८०७, दि. ०४/०३/२०२२

Sir/Madam,

You are requested to quote your lowest reasonable rates for the following items and send the quotation in sealed cover so as to reach the undersigned on or before date:- 21/01/2023

SN	Proposed Item	Specification	Qty. Required
1	Vacuum Chemical Vapour Deposition (CVD)	Muffle Furnace Working Temp up to 1150°C and Maximum Temp 1200°C, the specification of the electrically operated muffle furnace. FURNACE STRUCTURE • Furnace Tubular Type : Inner Dia. = 48 mm / Hot Zone length / 250 mm • Furnace hot zone volume : 125 mm (h) x 125 mm (w) x 300 mm (d) • Shell Construction : Double Wall High quality fabrication of M. S., Body M. S. sheet structure with Proper stiffeners and neat powder coat painting • Furnace stands & panel box : Control panel box side of the furnace • Insulation : High alumina Block Bricks A-29 Grade Alumina back up by mechanically pressed Zirconium Blanket ceramic fiber. • Gas Purging : Ends of the tube have Aluminum couplers with Cooling attachment for purging of gases with Rota meter • Tube Material : High Purity Quartz HEATING SYSTEM • Heating elements : Nicrome Wire 80/20 for heat treatment • Make : Kanthal Sweden • Type of element : Spring Type • Power : 6 K W signal Phase CONTROL SYSTEM • Temperature control : PID programmer 8 Ramp and sock Digital Temperature Controller Cum Indicator • Temperature sensor : CR/AL Wire (K) Type Thermocouple along with Recrystallised alumina beads and sheath • Accuracy : $\pm 1^\circ\text{C}$ • Heating rate : 0 to 15°C/ per Min • Cooling rate : 10 to 100°C/ per hour max. • Power control : Through the phase angle controlled Thyrister Drive (Thyrister block imported from SEMIKRON, ITALY) WITH complete unit Indications : (a) Amp meter (b) Pilot indicating light (c) Mains Indicator (d) Output Indicator Control switches : Mains on, out put on Safety : Input, output fuses (high rupturing capacity) Complete with vacuum pump with following Specifications Overflow Protection available Vacuum: -735 mm/Hg. [Maximum] Flow Rate: 6-20 l/min. Motor Rotation: 1,450 R.P.M. Capacitance: 3 $\mu\text{f}$ 450 V Horse Power: 1/6 HP Net Weight: 5.2 kg Port Thread: 0.3125" Noise Level: 52 dB Current: 0.4 A [Maximum] Moisture Trap available Vacuum Regulator available Dimension: 310 mm (L) X 135 mm (W) X 204 mm (H)	1 No.




2	Spin Coater	PTFE coated SS Working Chamber of 200 mm Diameter Programmable Acceleration Range of 40-5,000 R.P.M/sec [based on a Glass Substrate of Dimension 38 mm (L) X 25 mm (W) & Thickness 1 mm] Programmable Controlling Duration Range of 1-9,999 sec/step Real-time Display of R.P.M vs. Time in 4 Line LCD Display 2 User Programs available 10 Steps/Program available Warm-up Option available Calibration Option available Spill Drainage Facility available High-speed DC Motor for Fast Speed Reaching Non-volatile Program Memory User-friendly Firmware Interface N2 & other Inert Gas Purging Port available Integrated Power On/Off Switch available Integrated Vacuum Release Switch available Transparent Photo-resist Acrylic Safety Lid available Input & Controlling through Key-pad Power Input: Indian Standard Power: 80 W [Maximum] Complete with vacuum pump with following Specifications Overflow Protection available Vacuum: -735 mm/Hg. [Maximum] Flow Rate: 6-20 l/min. Motor Rotation: 1,450 R.P.M. Capacitance: 3 µf 450 V Horse Power: 1/6 HP Net Weight: 5.2 kg Port Thread: 0.3125" Noise Level: 52 dB Current: 0.4 A [Maximum] Moisture Trap available Vacuum Regulator available Dimension: 310 mm (L) X 135 mm (W) X 204 mm (H)	1 No.
3	Ball Bearing (Sputtering)	Mixing & grinding, electrically operated having capacity of few gms to 1 kg & 2 kg. Fitted with geared motor with max. Speed of 80 rpm. The jar is made of ss of having steel balls of different size to be put in jar for mixing & grinding pesticides powder. Jar is interchangeable and easily removable, light in weight and compact unit working on 220 v ac with cap. 1or 2 k	1 No.
4	Refrigerated High Speed Centrifugal	<ul style="list-style-type: none"> <li>• Stable speed output • High capacity with 6 x 50 ml tube adaptor • Wide variety of rotors &amp; reduction adaptors • Precise temperature control up to -8°C • Pre-cooling feature • Fast spin feature • Calibration window on lid for speed (rpm) Leading Technology : • Brushless induction motor with variable frequency drive ensures gentle start • Microprocessor based unit with alpha numeric LCD display • Self-diagnosis of errors • Parameters setting through easy to use bi-directional encoder • Inverter fault detection with auto shutdown • CFC free refrigeration system User Friendly : • 24 programme memory • 3 Accelerations, 4 Deceleration profiles • Choice of rpm / ref setting &amp; display • Operating panel with feather touch keys • Digital countdown timer 0-99 minutes and continuous run • Last set parameters recall (Useful for repetitive analysis) • Automatic door opening • Log of cumulative centrifuge run time Safety : • Automatic Rotor identification • Safety lid interlock to prevent lid opening during centrifugation • Imbalance detection &amp; centrifugation stop with display of error. • Motor overload protection • Gas hinge to prevent falling of door • Emergency lid lock release.</li> </ul> <p>TECHNICAL DATA : Max speed (rpm) 6000 Max RCF (g) 4700 Max Tube Size (ml) 50 Max. Capacity (ml) 300 *Min Temperature (°C) -8 Dimensions WxDxH (mm) 480 x 585 x 530 Voltage Stabilizer Supply : 220-240 Volts 50 Hz Single Phase VS-2 Along with 6 x 50 ml rotor with Polypropylene tube</p>	1 No.
5	Astrophotography camera with tripod	1. Tripod Stand 2. Laser Collimator, 3. Brand Color: Black, Type :Mirrorless, Color: Black, Effective Pixels: 24.2 MPS shooting Modes: A Plus/Special Scene Mode/Creative Filters/Fv/P/Tv/Av/M/B/C1/C2, Tripod Socket: Yes, Wifi: Yes, Face Detection: Yes, SLR variant: Body with RF-S 18 - 150 mm f/3.5 - 6.3 IS STM Lens Kit, Sensor type: CMOS, Image Sensor Size: 22.3 x 14.9, ISO Rating: Stills: 100 - 32,000 (H:51,200), Movie: 100 - 12,800, HDR PQ Movies: ISO 100 - 12,800, Lens Mount: RF, Dust Reduction: Yes, Shutter Speed: 1/4000 - 30 sec, Self-timer: Yes, Image Format: JPEG, HEIF, RAW, C-RAW, Video Resolution & Quality: 3840 x 2160 4K, Display Type & Size: LCD 3 inch, Touch Screen: Yes, Compatible Card: SD Card, Power Requirement: AC Adapter, Batteries Included : Yes & one extra, Battery Type: Rechargeable Lithium-Ion, Number of Batteries: 2, Width: 87.8 mm, Height: 122.5 mm, Depth: 147 mm, Weight: 739 g, Warranty Summary: 2 Years Domestic Warranty Service Type: Carry-in, Covered in Warranty: Manufacturing Defects	01 No.

- Note:- 1. The quotations call letter no, name of the department and last date should necessarily be written on the envelope.
2. Please attached with GST Registration Certificate, PAN Card and other necessarily Documents in envelope first and in second envelop quotation.

## **TERMA AND CONDITIONS**

1. VALIDITY :- The rate must be valid for 90days from the date of opening of quotations.
2. PRICE :- For destination at Government college of Engineering, Amravati.
3. DELIVERY PERIOD :- Four weeks from the date of issue of this order.
4. ALL TAXES/GST :- Inclusive of all taxes, including installation, delivery, etc charges.
5. EXCISE DUTY :- If any, specify
6. TAXES :- Rates quoted will presumed inclusive of all taxes unless otherwise stated.
7. PACKING FORWARDING, FREIGHT & INSURANCE :- If any, specify.
8. INSTALLAION / TRAINING /COMISSION CHARGES :- Inclusive.
9. PENALTY :- for late delivery @0.5% of the value of undelivered stores per week.
10. SECURITY DEPOSITE :- In case purchase of equipment's cost costing above Rs. 1,00,000/-(Rs. One lakh), a performance bank guarantee for an amount equal to 5% (five per cent) of the cost price for the duration of warranty period will be taken from the supplier/Indian Agent within one week of the acceptance of the purchase order by the firm. This deposit is liable to forfeiture to Government College of Engineering, Amravati, in the event of non-fulfillment of the terms and conditions on which the Purchase order is issued.
11. PAYMENT :- 90% payment to be made on inspection, installation and testing of the equipment and balance 10% on successful working for a month after demonstration.
12. WARRANTY :- One year against any manufacturing defects.

  
**Principal**  
**Government College of Engineering**  
**Amravati**