

**OFFICE OF THE PRINCIPAL,  
GOVERNMENT AUTONOMOUS COLLEGE, PHULBANI**

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Email ID- govtcollegephulbani@gmail.com / website:- [www.govtcollegephulbani.org](http://www.govtcollegephulbani.org)

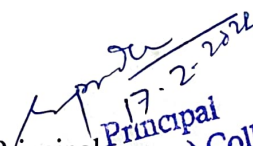
Letter No. 378

Date: - 17.02.2024

**TENDER CALL NOTICE**

Sealed tenders are invited in 2 bid-system (Department wise to be super scribed) from interested reputed registered firms / authorized suppliers having valid up-to-date GST/IT clearance for supply of Laboratory Equipment of reputed make so as to reach the undersigned by Registered Post/ Speed Post/courier service/by hand only on or before 02.03.2024 by 05.00 PM positively for consideration. The authority reserves the right to cancel the tender in whole or part without assigning any reason thereof.

For details, visit the College website: <https://www.govtcollegephulbani.org>

  
Principal  
Government Autonomous College  
Phulbani  
**Principal (Auto) College  
Govt (Auto) College  
Phulbani**  
17.2.2024

## DETAILS OF TENDER CALL NOTICE

### 1. Schedule of Tender

Tender No	001/17.02.2024
Name of the Tender Issuer	Principal, Government Autonomous College, Phulbani
Scope of work	Supply of Laboratory Equipment (For UG and PG) <b><u>Department wise:-</u></b> 1. Physics 2. Chemistry 3. Anthropology 4. Botany 5. Zoology 6. Education 7. Geography 8. Environmental Science Supply of Laboratory Equipment Technical Bid and Financial Bid as per Annexure-II & Annexure-III
Last date and time for Submission of bids	02.03.2024, 5.00 PM
Date and time for opening of bids (Technical Bids)	04.03.2024, 11.00 AM
Date and time for opening of bids (Financial Bids)	04.03.2024, 03.00 PM
Name of the contact person for communication	Dr. Girish Chandra Nayak, Addl. Accounts Bursar
Contact number of the concerned person	8908077158
Address for communication	Principal, Government Autonomous College, Phulbani, Dist: Kandhamal, Odisha, Pin-762001
Cover containing tender should be super scribed	Tender for supply of Laboratory Equipment <b><u>Department wise (For UG and PG)</u></b> 1. Physics 2. Chemistry 3. Anthropology 4. Botany 5. Zoology 6. Education 7. Geography 8. Environmental Science
Address for delivery of Laboratory Equipment	At the respective Departments, Government Autonomous College, Phulbani, Dist- Kandhamal, Odisha, Pin-762001

*[Handwritten signatures and dates at the bottom of the page:]*  
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Mandatory Submission <ul style="list-style-type: none"> <li>• Tender Application form</li> <li>• Technical Bid</li> <li>• Financial Bid</li> <li>• Self-declaration for not being black listed</li> </ul>	<ul style="list-style-type: none"> <li>• Annexure-I</li> <li>• Annexure- II</li> <li>• Annexure- III</li> <li>• Annexure-IV</li> </ul>
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## 2. Bidders Eligibility/Criteria

- Bidder must be a Authorized Supplier/ Dealer of supplying Laboratory Equipment. (Necessary certificate to this effect must be enclosed)
- The bidder must have a valid GSTIN for Laboratory Equipment.
- The bidder must have PAN allotted by the Income tax Department.
- The bidder must have cleared GST& Income Tax Payment up to 31.03.2023 & attested copies of GST clearance certificate from the concerned Dept. & attested copies of Income Tax return certificate from the competent authority up to 31.03.2023 must be enclosed along with documents.

### Bidding Procedure (Two Bid System):-

Department wise Technical bid for each department such as Physics, Chemistry, Anthropology, Botany, Zoology, Education, Geography and Env. Science having all technical details along with Commercial terms & conditions.

- Financial bid indicating item wise **unit cost inclusive of GST, other taxes if any, charge for installation and commissioning and all other charges** for each department such as Physics, Chemistry, Anthropology, Botany, Zoology, Education, Geography and Env. Science for the items mentioned in the technical bid.
- The successful bidders must bring the Equipment to Government Autonomous College, Phulbani at their own cost and complete the installation and commissioning of the equipment at their own cost.
- Technical bid & financial bid should be sealed in separate covers duly super-scribed as "Technical bid for supply & installation of Laboratory Equipment for Dept. of \_\_\_\_\_" and Financial bid for Dept. of \_\_\_\_\_.
- Each page of technical and financial bids must be signed by the

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bidder. Technical bid shall be opened at the first instance and evaluated by technical committee. At the second stage, financial bids of only technically qualified bidders shall be opened for financial evaluation and ranking to issue the supply order.

**(3) Procedure for submission of two bids system:-**

Bid should be submitted **item wise (for each department)** in two envelopes as mentioned below :

**Scaled Envelope- 2 (General Eligibility Documents)**

- (a) Tender application form(As per Annexure-I)
- (b) Technical bid form (As per Annexure-II) duly filled
- (c) Tender Notice for supply of Laboratory Equipment.
- (d) Single Non Refundable Tender paper cost of Rs.1000/- drawn in any nationalized bank in favour of Principal, Government Autonomous College, Phulbani payable at Phulbani
- (e) Single EMD of Rs. 2000/- in form of Demand draft from any Nationalized bank drawn in favour of Principal, Government Autonomous College, Phulbani payable at Phulbani.
- (d) Self attested copy of GST registration.
- (e) Self attested copy of PAN Card.
- (f) Self attested copy of Income tax return filing for last three years.
- (f) Self declaration for not being blacklisted.(As per Annexure-IV)
- (g) Authorization letter from the manufacturer.
- (h) Self attested copy of Bank details.

**Scaled Envelope-3.(Department wise Technical Bid)**

- (a) Technical bid form (As per Annexure-II) duly filled For UG & PG.
- (b) Authorization letter from the manufacturer.

**Scaled Envelope-4 Department wise Financial Bid duly sealed should contain.**

- (a) Financial bid form (As per Annexure-III) duly filled. for UG&PG
- (b) The supplier should quote the unit cost item wise (for each

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department) inclusive of all expenses, charges, taxes, duties, transportation, packing & forwarding, insurance etc.

- (c) The rate in both words and figures without any correction or overwriting should be quoted in financial bid.

**(4) General Terms & Conditions.**

1. Documents mentioned to be kept in Envelope No-2 must be mandatorily submitted by the bidder to qualify for the bidding process.
2. Bidders can participate in the bidding for more than one department with single Tender Cost and Single EMD.
3. Each bidder will have to provide single set of documents as mentioned to be kept in Envelope No-2 but separate Technical Bid (Envelope -3) and Financial bid (Envelope-4) for each departments.
4. Bidders must have valid GST/ Service Tax registration/ PAN with proven track record for supply of Laboratory Equipment.
5. Bidders should send their tender through Registered Post/ Speed Post/ courier/ by hand only. No other mode will be accepted.
6. The College is not responsible for non-receipt of tender within specified date and time due to any reason including postal delay on holidays.
7. Bids submitted without supporting documents, bare or incomplete in any aspect is liable for rejection.
8. The bidders should sign on each page of the tender and submit self-attested copies of the required documents.
9. Any delay in the supply and installation of the said items within the specified period, the concerned firms/ suppliers shall be held responsible and the authority reserves the right to cancel the order.
10. The quantity of items to be procured may vary at the time of placing Purchase Order.
11. Quoting merely the lowest price doesn't confer the right to any bidder

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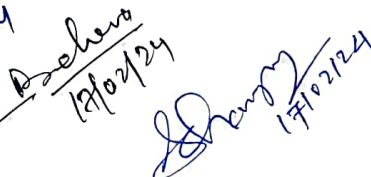
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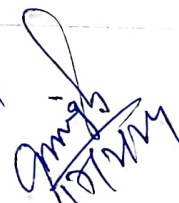
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- for the award of supply order. The Purchase Committee reserves the right to select the item of any bid on the grounds of specification compliance, technologically advanced quality, proven performance track record, brand reputation, service back up support and training, offer of additional features, and any other relevant features.
12. Each item should be strictly as per the specification. The College reserves the right to reject the item in case any deviation from the desired norm.
  13. Installation and successful demonstration of the item in the respective department is obligatory and it should be free of cost at Government Autonomous College, Phulbani.
  14. If any item covered under warranty fails, the same shall be replaced completely free of cost without any additional charges whatsoever.
  15. The complete delivery of goods, installation and commissioning of the items should be made within 10 days from the date of issue of supply order.
  16. The total amount of the item should be inclusive of all taxes and statutory levies, labour cost, installation charges, packing, insurance, freight etc.
  17. The item included in the list is tentative and may not be procured while ordering which is the sole discretion of Principal.
  18. The successful bidder with quoted price as approved by the College shall be considered for issue of purchase order only when the bidder fulfills all the terms and conditions laid down in tender documents.
  19. All the tenders will be evaluated and compared on the basis of the following order.
    - a. Compliance with instructions/General conditions of the tender.
    - b. Conformity with specifications.
    - c. Authorization letter from manufacturer
    - d. Guarantee/Warranty/Expiry Period.
    - e. Quality.

  
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- f. Price.
  - g. Post sales service
20. Following documents should accompany with tender.
- a. Tender application along with Annexure-I to IV duly completed & signed.
  - b. Specifications and rate as per our format
  - c. Self Attested Copy of GST/registration.
  - d. Self Attested Copy of PAN Card.
  - e. Three year Income tax returns(2020-21,2021-22 and 2022-23)
  - f. Self declaration for not being blacklisted.
  - g. Authorization letter from manufacturer.
  - h. Self Attested Copy of Bank details/Cancelled Cheque.
21. The vendor shall adhere to the time line provided by the College.
22. In the event of any loss, damage, breakage or leakage or any shortage, the bidder shall be liable to bear such loss and shortage found at the checking/ inspection of the supplied instrument. No extra cost on such account shall be admissible.
23. A copy of recent catalogue of supplied items is to be submitted along with triplicate copies of bills/ invoices. Internet price proof shall not be accepted under any circumstances.
24. In case of any error or omission, decision of the college authority is final and binding.
25. Supplied items, if any found damaged/ lost are liable to be replaced by the supplier before receiving final payment.
26. Process of the supplied items charged in the bills / invoices are subject to recovery of any excess found later on.
27. Copies of the way bills used should be submitted while supplying the goods.
28. Any loss caused to the institute due to any wrong calculations / claims will be recovered from the supplier at any time.
29. Warrantee period & after sale service conditions etc. are also to be clearly

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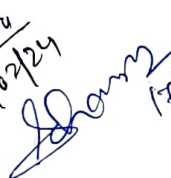
- indicated. No advance money will be paid to the selected firm.
30. Bills for final payment to the selected firm will be made after supply of all the articles in order list, submission of requisite document & complete verification by the post purchase committee.
  31. Any dispute arising shall be subject to the jurisdiction of Phulbani, Kandhamal Court only.
  32. Any corrections/ corrigendum will be given in our Official website i.e. <https://www.govtcollegephulbani.org>. Please visit College website regularly for any information up date.
  33. The authority reserves the right to accept or reject the tenders in whole or part without assigning any reasons thereof.
  34. In case of any doubt/difference of opinion arising during bidding process, the decision of the authority is final and binding.

  
Principal  
Govt. Auto. College  
Phulbani

  
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To,  
The Principal,  
Govt. Autonomous College,  
Phulbani

Sir,

With reference to your Notice reference NO. 001/ dt. 17.02.2024, I am hereby submitting my tender for the supply of Laboratory Equipment accepting the terms and conditions mentioned in the tender document.

1.	Name of the Bidder/Company name	
2.	Full Postal Address	
3.	Telephone Nos/Mobile Nos/ Fax Nos.	
4.	E-mail ID	
5.	PAN No.	
6.	GST No.	
8.	Bank Details	

Undertaking:-

- (1) I certify that I have gone through the terms and conditions mentioned in the bidding document and undertake to comply them.  
The rates quoted by me are valid and binding upon me for the entire validity period and it is certified that the rates quoted are minimum and rational as per existing market rate.
- (2) I hereby undertake to execute the work / supply order as per direction given in the tender document within stipulated period.

Date:  
Place:

(Signature of the Bidder)  
Name:-  
Designation:-  
Registration No. of supplier/Bidder

(Official seal of the Firm)

**TECHNICAL BID**

(Should be submitted in a sealed envelope separately & super-scribing on the envelope Department wise as "Technical Bid" )

Department:-

Sl. No	Item with Specification	Brand Name& Model No	Warranty/ Guaranty period	Remarks
1.				
2.				
3.				

**Signature of the  
Bidder  
(with Seal)**



**FINANCIAL BID**

(To be enclosed in separate sealed cover & super-scribed on the envelope Department wise as "Financial bid")

Department:-

Sl. No	Item with Specification	Brand Name& Model No	Unit Cost inclusive of GST & all Other costs & charges	Remarks
1	2	3	4	5
01				
02				
03				

**Signature of the  
Bidder  
(with Seal)**

**SELF DECLARATION FOR NOT BLACKLISTED**

To

**The Principal,  
Government Autonomous College,  
Phulbani.**

**Ref: Tender No.001/Dt.17.02.2024**

**Madam / Sir,**

I/we \_\_\_\_\_ hereby confirm  
that our firm has not been banned or black listed by any Government Organization /  
Financial Institution / Court / Public Sector / Private Sector / State Govt. / Central Govt.

**Place:**

**Date:**

**Signature of the Bidder  
(with seal)**

# CHECK LIST

- 1) Large Envelop No-1 containing the following small envelopes
  - (a) Envelope No-2 containing the following General documents
    - \*TENDER DOCUMENT (Annexure-I)
    - \* EMD in the form DD drawn in any nationalized bank in favour of Principal, Government Autonomous College, Phulbani payable at Phulbani.
    - \* Demand draft drawn in any nationalized bank in favour of Principal, Government Autonomous College, Phulbani payable at Phulbani for tender paper cost
    - \* PAN
    - \* GST
    - \* ITR
    - \* Self declaration Annexure-IV
  - (b) Sealed Envelope no-3 (Technical Bid Annexure-II for each dept.) super-scribed with dept. name.
  - (c) Sealed Envelope-4 (Financial Bid Annexure-III for each dept.) super-scribed with dept. name.

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**P.G DEPARTMENT OF ANTHROPOLOGY**  
**GOVT. AUTO. COLLEGE, PHULBANI**  
**LABORATORY EQUIPMENT LIST**

Date – 01.02.2024

SI No	Name of the equipment	Quantity	Specification
1	Osteometric board (standard steel)	02	stainless Steel Usage/Application: to measure length of bone Coating: stainless steel Surface Finish: SS finish
2	Mandibulometer(aluminium gray)	02	V-Tech, Height 40mm Bottom Dia 70mm
3	Tubular craniophore	04	FRINGE LABS - Tubular Craniophore (Martin Type) Anthropology Equipment
4	Weighing machine manual	02	Usage/Application: Weight measurement Calibration: manual Mode Of Operation: Manual Model Name/Number: PAS 9820 Display Type: Analog
5	Sphygmomanometer manual	04	Included Bulb Components Power Source Air-Powered Use for Arm Display Type Analog
6	Skin fold calliper	02	Size: 5" x 6" x 0.6", Measurement Range: 0-100mm
7	Cubic craniophore	02	Composition stainless steel Model Name/Number Cubic Cranioph

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			Product Type Form Portable	Biochemical Analy solid Yes
8	Garmin GPS etrex10	01	Model Name Screen Size Special Feature Connectivity Technology Map Type	Etrex 10 2 Inches Waterproof USB Worldwide
9	Total Body Fat Analyser	01	Item Type: Body Fat Monitors, Material: ABS, Commodity Quality Certification: 3C, Model Number: Body Fat Caliper, Unit Type: piece, Package Weight: , Package Size:	
10	Sphygmomanometer Digital	04	Top of Form BP Monitor Bottom of Form Included Components Power Source Use for Display Type	Cuff, 4 AAA Batteries, Instruction Manual Battery Powered Arm LCD

*Amal*  
H.O.D. Amal

## Department of Botany

Sl. No.	Name of Equipment	Specifications	Quantity
1	Horizontal Laminar Air flow	Size of working table: 4 x 2 x 2 ft, cabinet made of powder coated steel, transparent front door and side wall HEPA filter, 2nos. fluorescent light, 3ft length UV light, Noise level: <60db, static pressure manometer, cock for gas	One
2	Digital pH meter with electrode	Digital display, pH: Range: 0-14, resolution: 0.01pH, accuracy: $\pm 0.01$ , calibration: up to 3, buffer set Temperature: range-0-100°C resolution: 0.1°C, Accuracy- $\pm 0.3^\circ\text{C}$ with adaptor	One
3	Cooling centrifuge	Temperature: Up to $-20^\circ\text{C}$ , speed: 500-15000rpm, Digital display, Brushless DC motor, Lid lock safety, imbalance detection system, time setting: 30 sec-30min, with 1.5ml and 50 ml rotor	One
4	Soxhlet Extraction unit with single place heat mantel	Extractor capacity: 100-250ml, flask capacity: 100-250ml, temperature: uniformity- $\pm 15^\circ\text{C}$ accuracy- $\pm 1^\circ\text{C}$ , mental temp- up to $300^\circ\text{C}$ ,	One
5	Submarine electrophoresis unit with power pack	Buffer chamber, safety lid with cable, UV transparent tray (7 x 7 cm), 8 and 15 well comb, gel casting tray, power pack can run at least two-unit, maximum output 300V, 400mA and 80watt	One
6	Portable Autoclave	Stainless steel body, 5-10lt. capacity, Insulated wall, pressure gauge, drainage facility, safety valve, pressure-15-17psi, temperature-121-134°C, power chord.	One

*B. Dehara*

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DEPT. OF BOTANY



**DEPARTMENT OF CHEMISTRY**  
**GOVT. AUTO. COLLEGE, PHULBANI**

To  
The Principal  
Govt. Autonomous College, Phulbani

Sub.: Submission of final list of equipment for procurement from sanctioned fund against Dept. of Chemistry, vide your Memo No. 336 dt. 12/02/2024

Sl. No.	Name of the Instrument	Make	Specifications	Tentative price per unit (in Rupees)	Units	Total Tentative Price (in Rupees)
1	Surface Tensiometer	Any reputed Brand	Range: 1 to 900 Dyne/cm Frequency: 50 Hz Power Source: Electric Voltage: 240 V Display Type: Digital	10,000	2	20,000
2	Viscometer	Any reputed Brand	Viscosity Range: LV: 1 to 6000000 mPa.s Rotation speed range: 0.1 to 250 rpm Accuracy: $\pm 1.0\%$ (of full range) Repeatability: 0.005 Probe: RTD temperature probe Display: LCD	59,000	1	59,000
3	Gouy's Apparatus	Any reputed Brand	DIGITAL BALANCE: Capacity: 100gms Sensitivity: 1 mg. Beam: Load Cell	55,500	1	55,500

			<p>Display: LCD Display Operating: 9v. Adaptor workable on 220v.50Hz.</p> <p>(b) Electromagnet: Pole Pieces: 50mm tapered to 25mm Mag. Field: 10KG 10mm Air gap</p> <p>(c) Electromagnet Power Supply: Display:- 3 Digit LED Operating :- 220v.50Hz.</p> <p>(d) Gaussmeter Digital 3 1/2 Digital Display Range :- 2k - 20KG. with Hall Probe</p>			
4	Magnetic Stirrer with hot plate	Any reputed Brand	Temperature Range: Upto 300°C Capacity: 2 Ltr	10,860	2	21,600
5	Mechanical Shaker	Any reputed Brand	Capacity: 9-12 Flasks Display Type: Digital Size: Standard Speed Controller & Digital Timer	15,850	2	31,700
6	Hot Plate	Any reputed Brand	Heating Power: -4.4 Kw Driven Type: Electric Voltage: 220V Temp Range: 50° ~ 300°C	8,600	2	16,000
<b>TOTAL</b>						<b>2,03,800/-</b>

*[Signature]*  
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DEPARTMENT OF EDUCATION, GOVT. AUTONOMOUS COLLEGE, PHULBANI

SL.NO	ITEMS	Quantity	Product details/Specification
1	Educational Charts;&Models	6	Science,Math,Geography and English Alphabet Chatts and models.
2	Mirror drawing Apparatus	2	The wooden box has a metallic plate with a star pattern grooved in the middle
3	Psychological test equipment	3	General Mental Ability Test,Cube Construction
4	Over head Projector	1	Test and Size &Weight illusion box.
5	Balance Scale	2	work through transformer 30ft,
6	Stop watch	2	Size:5.5in 5.5in
7	Vedeo Recorder	1	D\$-1045 Digital \$topwatch
8	Audiometer	1	D\$-1045 Digital \$topwatch
9	Human Maze Learning Equipment	1	Visionhitech VH0460S Digital Vedeo Recorder
10	C.D Player	1	ANSI S3,6-2018(R2023)
11	Compass Box	1	Electrical with Manual
12	Photograph of Educationist	1	4.7 inches across is 1.2mm thick
13	A Scale of Recording and writing skill	10	10 10cm long and 4mm thickness
14	Ranking Scale	10	1.5ft length and 1ft width
15	Clinical case study form	1	Advanced,intermediate and novice level
16	Problem solving Ability test Eqpt.1	1	Written format
17	Teaching Aptitude Test Bttery	10	Written format
18	Spherometer	1	Product code16-5191-KT
19	Maxwell Needle	1	Form consists of 120 items
20	Voltameter	1	Ultra CURV
21	Prism	1	Hollow brass tube is 40cm,dia 18cm and
22	Ameter	1	AM-V-3Analog Voltameter
		1	XML,XML/RDF
		1	CE-0102AAC3-1/2

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## Specifications for Department of Environmental Science, GACP

### List of Equipment

#### **1. Double Beam PC Based UV-Visible Spectrophotometer-01**

Wavelength Range: 190-1100 nm

Wavelength Accuracy:  $\pm 1$  nm

Wavelength Repeatability:  $< 0.2$  nm

Wavelength Readout: Digital Readout LED display in 0.1 nm increment

Spectral Bandwidth: 1 nm

Photometric Range: 0 to 2.000 Abs, 0-200%T and 0 to 9999 Concentrations

Wavelength Repeatability:  $< 0.002A$  (0.5-1A),  $< 0.2\%T$

Scan speed: high, medium, low (max. 2000nm/min); baseline flatness= 0.0015A

Display/output: digital, PC based, UV-Vis Analyst scanning software; Printer: laserjet, output port USB;

Sample compartment: 10 mm path length Cuvette

Power requirement: AC 90-250V, 50-60 Hz; Accessories: 1 Pair Quartz Cuvette; Warranty: 1 yr.

#### **2. Double Distillation Water Unit-01**

##### **Details**

##### **Parameters**

Distillation Water Capacity (LPH)	2-3
pH Value	5-7
Conductivity ( $\mu S/cm$ )	$\leq 1$
Numbers of Built in Quartz Heaters	2
Distillation Units Type	Horizontal
Distillate Temperature	25-70
Biological Activity	Pyrogen free
Built in Quartz Heater Capacity	7.5 kiloWatt
Double Stage Glass Distillation Units	Yes
Cooling Water Consumption (LPH)	40
Auto Cut Off System	Yes
Input Voltage	Single Phase 230 Volts
Warranty	1 year

#### **3. Micropipettes**

Micropipette Volume range: 10-100 $\mu l$ , 100-1000 $\mu l$ ; Spring Loaded Tip Cone: Improved ergonomics, Adjustment opening, Control Button, Ejector: positioned for perfect ergonomics, IVD Conformation, Volume Display: 4 Digits. Magnifying shape, Piston System: Ultra light system made of Forton. Fully Autoclavable, Warranty- min. 1 Yr

#### **4. Soxhlet Apparatus with Heating Mantle-01**

Product Description	Soxhlet Extractors
Purpose	Component of Extractor, round Bottom Flask, Condenser, Thimble, Siphon Tube, Vapour Tube, Expansion adapter
Material	3.3 Borosilicate Glass
Finishing	The apparatus must be free from cracks, chips, sharp edges, Bubbles and gases inclusions.
Conical Glass Ground Joints	Confirm to IS5165
Nominal Capacity	500 milliliter
Flask Size	500 milliliter
All dimensions of extractor as per IS-10640 (Latest)	Yes
Heating Mantle	200W Digital Heating Mantle with Timer, Capacity: 500 ml

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## 5. Marine GPS (Hand Held) System-01

Bluetooth Connectivity	yes
USB	yes
Type	HandHeld
Built-in Antenna	Yes
Weight with Batteries(grams)	230gram
Channels(No.)	12
Pre-loaded Handheld Software	yes
/Compatible Office Software	
Slip Resistant Grip and Base Map	Yes
WAAS Enabled	Yes
In built Electronic Compass	yes
Paperless Geocaching	yes
Inbuilt Barometric Altimeter Facility	yes
RAM(GB)	1GB
Micro SDCard Slot	yes
Expandable upto (GB)	32 GB
DisplayType	Transflective Colour TFT
DisplaySize(Diagonal)(Inches)	2.6to3
DisplayResolution	240x400 pixels
Type of Battery	Alkaline(Non-Rechargeable) Ni-MH, 2.3 Vah
Battery Backup(Hour)(N>= 16)	16hour
Waypoints/Favorites/Locations & Routes	5000 & 200
Track Log	10000 Points, 200savedTracks
Area Calculation	Yes
Drop/FreeFallTest	Drop/FreeFall Test in unpacked, Switched Off /normal handling (Height-1m, up to 2 falls)
Processor	Garmin Processor
Operating Temperature (DegreeC)	-20degreeCelsius
Accuracy	2meters
Time taken to give first fix(Second)	15 s
Carry Case	Yes
Warranty(Year)	1year
Ingress Protection (IP Rating)	IPX7

### 6. pH meter: 01

pH range: 0 – 14; mV range: 0- 1999; slope correction: 85% - 115%; resolution: 0.01 pH or 1 mV; repeatability:  $\pm 0.01$  pH, 1digit mV; Temp compensation: 0-100 °C; Power: 230V  $\pm$  10% 50Hz; Accessories: Combined electrode stand clamp, temp sensor PT 100

### 7. Digital Conductivity meter: 01

Conductivity range: 0  $\mu$ S to 20 mS with 0.1 cell constant and 0  $\mu$ S to 200 mS with 1.0 cell constant; TDS: 0 ppm to 20 ppt- 0.1 cell constant and 0 ppm to 200 ppt with 1.0 cell constant; temp: 0 to 100 °C (auto/manual); Display: 3 digits LED; Resolution: conductivity=0.01  $\mu$ S and TDS 0.01 ppm; Accuracy:  $\pm 1\%$  of f.s.,  $\pm 1$  digit; Cond. Cell Compensation: 0.09 to 0.11; TDS factor: 0 to 1.0; Temp. range: 0 to 100 °C-PT 100 sensor; Power: 230V; Cond Tempo range: 0-10% per °C

### 8. Column Chromatography system-01

1000ml Chromatography Column with Stopcock borosilicate glass make; 40 mm bore

*Sham*  
13/02/2024



**Dept. of Physics**  
**Govt. Autonomous College, Phulbani**

Sl. No	Item Name	Technical Specification	Quantity
1	Zener Diode	Variable DC supply: 0-3V & 0-30V, Voltmeter :0-3V & 0-10V (Moving Coil),Ammeter :0-150 $\mu$ A & 0-15mA (Moving Coil) Variable pot :500K - 2nosInterconnection :4mm patch cord. Zener Diode : 6V,9V&12V, Resistance:1k $\Omega$ -3nos, Diode Type : Germanium & SiliconLED Type : SMT & Semiconductor, Front panel built with high class insulated sheet, Circuit & Symbol diagram printed on front panel, Mains Power :230V/50Hz	One
2	Potentiometer	10 wire type potentiometer	One
3	Newton's Ring Setup	Newtons Ring Microscope: Magnification - 30X Eyepiece : Ramsden 10x, Objective : 3x Scale length : 110 mm, Least count : 0.01 mm Rotatable Cross line Sodium Vapour Lamp 35W , Transformer with Metal cover & Base Rod	One
4	LCR Kit	DC Voltmeter : 0-5V (Moving Coil) DC Ammeter : 0-25mA (Moving Coil) Resistances :100 $\Omega$ ,150 $\Omega$ & 220 $\Omega$ Capacitors : 0.1 $\mu$ f,0.2 $\mu$ f & 0.3 $\mu$ f Inductance : 50mH Signal Generator -200Khz	One
5	Gouy's Apparatus	Electromagnet-1T, Constant power supply 1-3.5A, Gauss probe mount(Anodized Al),Digital Gauss meter -0-20k Gauss, Gouy Balance, Specimen holder with mount, Test Sample, connecting wires, Manual	One
6	Fresnel's Biprism	Fresnel Bi-Prism, Bi-Prism Holder Auto Action/Lens Holder. Micrometer Eyepiece Optical Slit, Condensing Lens. , Sodium Light 35Watt, Transformer & Metal Nox for Light	One Two

7	Four Probe Setup	Four Probe method with Cutoff min temp at 100oC FOUR PROBE ARRANGEMENT Oven (up to 200°C), Thermocouple Sensor (With Probe), Sample : Ge Crystal mounted, Thermometer (0-200°C), Four Probe Setup, Output Brought Out Through 4mm Banana Plugs. Constant Current Power Supply 20mA, OPTIONAL ESSENTIAL ACCESSORIES Digital Temperature Meter & Digital Multimeter	One
8	Babinet's Compensator	Babinet's compensator, Quarterwave plate, polarizer, analyser, Eye piece, white light lamp source	One

*Sudhar*  
13/12/24  
(H.O.D.)

**DEPARTMENT OF ZOOLOGY**  
**GOVT. AUTO COLLEGE, PHULBANI**

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Submission of final list of equipment for procurement from sanctioned fund against Dept. of Zoology.

**List of equipment with specification and tentative price**

Sl. No.	Equipment	Specification	Make	Qty
1	Accupipette	Volume (20-200 $\mu$ l), 100% Accuracy	Any Reputed Brand	1
2	Accupipette	Volume (100-1000 $\mu$ l), 100% Accuracy	Any Reputed Brand	1
3	Column Chromatography System	1000ml Chromatography Column with Stopcock & Sintered Disc	Any Reputed Brand	1
4	Laboratory Refrigerator	-20° C Deep Temperature Vertical/Horizontal, Single door, Refrigerator cum freezer, 150-200 ltrs	Any Reputed Brand	1
5	Gel electrophoresis unit (Horizontal)	16 well gel casting tray, Power pack, Electrophoresis unit	Any reputed Brand	1
6	Magnetic stirrer with hotplate	250ml to 2litre Different size magnetic stirrer bars (Minimum 4no.)	Any reputed brand	1
7	Lab pH meter (Digital)	Temperature Accuracy: + 1°C, Frequency: 50 Hz Temperature Range (°C): 0 to 100°C, pH Range: 0 -14 pH, Calibration: 2 points pH Resolution: $\pm$ 0.01 pH, Temperature Compensation: 0 to 100°C mV Accuracy: $\pm$ 90 $\mu$ V Features: NIST (pH 4.01/6.86/9.18) mV Range (mV): +1999 mV, pH Accuracy: $\pm$ 0.01 pH	Any reputed Brand	1

**DEPARTMENT OF ZOOLOGY**  
**GOVT. AUTO COLLEGE, PHULBANI**

8	Single phase water bath	Dimension: 450x375x375 mm, Voltage: 220 V Frequency: 50 Hz Phase: Single Temperature: 1 °C	Any reputed brand	1	21500
9	PC Based UV VIS Spectrophotometer	PC Based Automatic source optimisation & base line correction 200 – 1000 nm Range 1 nm Bandwidth %T, Abs, Conc. (K factor, Multi standard up to 5) measuring modes Single Wavelength, Multi Wavelength, Scan (with multi scan facility), Time Scan operating modes Automatic 5 position sample changer, Software for data analysis PC: All-in-One Desktop PC, Intel® Celeron® processor, Windows 11 Home, 54.6 cm (21.5) diagonal FHD display with Intel® UHD Graphics 600, 8 GB DDR4-2400 RAM, 512 GB PCIe® NVMe™ M.2 SSD	Any reputed brand	1	250000
Total					401000

  
**HOD**  
 Dept. of Zoology  
 18/12/24



DEPARTMENT OF GEOGRAPHY, GOVT. AUTONOMOUS COLLEGE, PHULBANI

SL.NO	ITEMS	Quantity	DESCRIPTIONS	Product details/Specification
1	3D map of India	1	3D mapping allows users to profile objects in three dimensions, providing the latest technical methods for visualization and information acquisition. A 3D map provides a realistic view of a location that can be utilized	ASIN : B0C4JH2729 Reading age : 6 years and up Net Quantity : 1.00 Set Best Sellers Rank: #502,533 in Books (See Top 100 in Books)
2	3D map of Odisha	1	3D mapping allows users to profile objects in three dimensions, providing the latest technical methods for visualization and information acquisition. A 3D map provides a realistic view of a location that can be utilized by local authorities and planners.	ASIN : B0C4JH2729 Reading age : 6 years and up Net Quantity : 1.00 Set Best Sellers Rank: #502,533 in Books (See Top 100 in Books) #25,249 in School & Educational Supplies

3	3D map of World	
1	3D mapping allows users to profile objects in three dimensions, providing the latest technical methods for visualization and information acquisition. A 3D map provides a realistic view of a location that can be utilized by local authorities and planners.	<p>Artistic Wall Décor : This handcrafted wooden 3D World Map wall Decor serves as a beautiful piece of wall art, turning your space into a travel-inspired haven. Makes Everyone to ask about this masterpiece.</p> <p>Full Accessories Pack: Comes with all necessary accessories (Free Planes, Ships, Fishes, Ocean Names, Compass and Location Pins to mark the places you have visited) for easy installation, making it a hassle-free decorating experience. Double sided tape will be provided on each Piece and Numbers are marked as in the instruction manual to assemble the map easily.</p> <p>Available in various Size Options. Small : 90x52CM (20x35 inches) , Medium : 120x69CM (27x47 inches), Large : 156x89CM (35x61 inches) , X-Large : 205x116CM (45x81 inches) , XX-Large : 255x145CM (57x100 inches)</p> <p>Perfect Gift for : Ideal for travel enthusiasts, adventurers, and those with an appreciation for artful decor. Makes a thoughtful and unique gift.</p> <p>Interactive Design: Showcase your wanderlust with this interactive Wood Map wall decor. Use the included accessories to mark your past travels or dream destinations</p>

			<p>It is called "Dry Bulb" because the air temperature is indicated by a thermometer not affected by the moisture of the air. Dry-bulb temperature - <math>T_{db}</math>, can be measured using a normal thermometer freely exposed to the air but shielded from radiation and moisture.</p>	<p>Plastic base export quality, umbrella head, white background, fine finish and easy readability Base set of two thermometer, one with wet bulb for measuring the humidity level Range -10 to 50 degrees celsius and 120 degrees farhenheit. Size approx. 27x5 cm with light weight with chart for calculation.</p>
4	Dry Bulb Thermometer	2	<p>The Wet Bulb temperature is the temperature of adiabatic saturation. This is the temperature indicated by a moistened thermometer bulb exposed to the air flow. Wet Bulb temperature can be measured by using a thermometer with the bulb wrapped in wet muslin.</p>	<p>Plastic base export quality, umbrella head, white background, fine finish and easy readability Base set of two thermometer, one with wet bulb for measuring the humidity level Range -10 to 50 degrees celsius and 120 degrees farhenheit. Size approx. 27x5 cm with light weight with chart for calculation.</p>
5	Wet Bulb Thermometer	2	<p>An instrument used to measure the areas of maps or planes and flat surfaces in general. It is called a mechanical integrator and has a tracing point that performs a double measurement of the perimeter of the relevant surfaces. Its accuracy is <math>\pm 0.2\%</math> of whole scale.</p>	<p>The most standard model of "Koizumi Placom" N-Series has made the excitingly highest attainment in the history of Placom Digital Planimeter KP-90N ever made. Measuring capacity is remarkably enlarged. Measuring by 6-digit pulse count enables to measure 100 times larger accumulative area than ordinary planimeters. Easy calculations of Cumulative and Average Value Measurement.</p>
6	Planimeter Digital	2		

			<p>Map Measure-Rotameter (Double Sided)</p> <p>Measurement scales in standard and metric scales on one side and miles/kms/nautical miles on the other</p> <p>Set the rotameter needle to zero and run the wheel on the map to calculate distances.</p> <p>Easy to read scales and precision gear and wheel.</p>
7	Rotameter	2	<p>3-pen set of high-precision technical pens with refillable ink reservoirs is perfect for College-level students.</p> <p>Wear-resistant, hard chrome-plated thin tip allows exquisite detail work. Nib is crafted from stainless steel.</p> <p>Push-on sleeve provides easy access to ink helix and fast cleaning. Color coded barrel indicates line width.</p> <p>Refillable ink reservoir is ideal for frequent drawers. Fill from ink bottles available in multiple colors. Ink not included.</p> <p>Wear-resistant, hard chrome-plated thin tip allows exquisite detail work. Nib is crafted from stainless steel. Not for any use on skin, including tattoos.</p>
8	Rotring pen	40	



			<p>Theodolite, which is manufactured in compliance with international standards. We offer Vernier Transit Theodolite in various models and other specifications to meet the clients demand. Moreover, our Vernier Transit Theodolite is duly checked on various parameters by the experts.</p> <p>Known For</p> <ul style="list-style-type: none"> <li>• High performance</li> <li>• Optimum quality</li> <li>• Easy maintenance</li> <li>• Longer working life</li> </ul> <p>Used For</p> <ul style="list-style-type: none"> <li>• Construction surveying</li> <li>• Cadastral work</li> <li>• Rail-roads</li> <li>• highway alignments</li> </ul> <p>Specifications</p> <ul style="list-style-type: none"> <li>• Precision Direct Reading Modern Vernier Transit Theodolite 10 Sec accuracy. Model VT(10S).</li> <li>• Precision Direct Reading Modern Vernier Transit Theodolite 20 Sec accuracy. Model VT20AIE.</li> <li>• Modern Vernier Transit Theodolite 20 Sec</li> </ul>
9	Theodolite and its accu	1	<p>A Theodolite is a measuring instrument used to measure the horizontal and vertical angles are determined with great precision. Theodolite is more precise than magnetic compass. Magnetic compass measures the angle up to as accuracy of 30'.</p>

			A topographic map is a detailed and accurate illustration of man-made and natural features on the ground such as roads, railways, power transmission lines, contours, elevations, rivers, lakes and geographical names	R.F 1:150,000
10	Toposheet		30	
11	Tracing Table	1		Make this perfect light box for sketching in an afternoon. The best part is you don't have to do any electrical work, because it works with off-the-shelf LED strips. Learn how to make a light box for tracing with these easy to follow plans

			<p>Along with efficiently performing basic arithmetic operations and simple calculations, scientific calculators offer you a myriad of additional built-in functions. These calculators are highly beneficial for students studying in science, commerce, engineering, and technological fields. These mathematical tools are reliable and ensure accurate results within a short span of time. You can use these devices to perform calculations on hyperbolic functions such as <math>\cos</math>, <math>\sin</math>, <math>\tan</math>, along with inverse hyperbolic functions. Now you can quickly solve trigonometric functions such as sine, cosine, tangent, cotangent, cosecant, and secant. It supports operations of logarithms, factorials, permutations, and combinations. You can also use these calculators for inverse trigonometric functions. Using these calculators, you can solve a large number of problems related to the concepts of square roots, cube roots, logarithms, and binary functions, among many others. You can find the best scientific calculators in India by shopping for them across online stores. Here, you can find several options of calculators offered by top brands such as Flair, CASIO, TEXAS INSTRUMENTS, Oreva, etc.</p>
12	Scientific calculator	50	

				<p>The garmin etrex 10 has an enhanced 2.2" monochrome display that's easy to read in any lighting situation. Both durable and waterproof, etrex 10 is built to withstand the elements. Its easy-to-use interface means you'll spend more time enjoying the outdoors and less time searching for information. Dust, dirt, humidity, water-none are a match for this navigator.</p>
13	GPS	1		

  
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