

**OFFICE OF THE PRINCIPAL, RAJDHANI COLLEGE, BHUBANESWAR
NO. 5294 //DATE. 17.12.2024**

QUOTATION CALL NOTICE
(For Lab Equipment/Lab Furniture/Chemical & Glassware)


Sealed quotations are invited from registered Firms / Manufacturers / Authorized Dealers of reputed brands having valid GST Registration and Income Tax PAN for supply of Lab Equipment, Lab Furniture, Chemical & Glassware for the College Laboratories in different departments. The last date and time for submission of the quotation is on or before dt. 13.01.2025 (2.00 pm).

For more details, please visit our college website: www.rajdhanicollege.org.in.

Sd/-Principal
Rajdhani College, Bhubaneswar

Memo No. 5295 dt. 17.12.2024

Copy to College Notice Board/OIC, College Website / Account Section/H.C for information and necessary action.


Principal 17/12/24
Rajdhani College, Bhubaneswar

**OFFICE OF THE PRINCIPAL, RAJDHANI COLLEGE,
BHUBANESWAR**

Quotation Call Notice

No. 5294 //Date 17.12.2024

Sealed Quotations are invited from intending Manufacturers / Authorized Dealers of reputed brands having valid GST Registration & Income tax PAN for supply of **Lab Equipment, Lab Furniture, Chemical & Glassware** for the College Laboratories of different departments with the following terms and Conditions.

1. The bidder must be a Manufacturer / Authorised Dealer of reputed brand. The Manufacturer/ Authorized Dealer must have experience of at least three years in the field of selling of **Lab Equipment, Lab Furniture, Chemical & Glassware**.
2. Any bidder who has been debarred / black listed/found guilty within the last three years are not eligible to participate in the Quotation Call Process. All bidders are required to furnish a certificate to the effect as per format specified at **Annexure - 2**.
3. The Technical Specifications of **Lab Equipment, Lab Furniture, Chemical & Glassware** in different departments of the College are given in **Annexure - 1**.
4. The successful bidder awarded with the supply order will be required to deposit Performance Security of 5% of the value of the order within 07 days from the date of issue of order in the form of account Payee bank draft issued by any of the Scheduled Commercial Banks in favour of The Principal, Rajdhani College, Bhubaneswar Payable at Bhubaneswar. EMD will be refunded to the successful Bidder on receipt of the Performance Security.
5. The Performance Security will be forfeited in case of non-compliance / non-performance/delay in performance as per the term and conditions of Quotation Call Notice and the Supply order along with taking necessary steps for blacklisting such bidder. The performance security will be released only after successful completion of the supply.
6. The selected bidder will be required to deliver all the Lab Items at Rajdhani College near fire Station Baramunda, Bhubaneswar and install the respective Labs of the College, wherever required.

The entire responsibility of safe and secure delivery and installation of the items in good condition shall lie with the selected bidders.

7. The price quoted by selected bidders should be all inclusive i.e. with GST, Transportation, Loading & unloading, Installation Charges, and other charges, if any.

8. **All the price quotations must be submitted with details of product, description, specification as per Annexure – 1, unit price inclusive of GST & all other charges, quantity, total amount, terms and conditions.** The following documents are to be enclosed with the Price quotation and must be submitted with seal and signature of the Authorized Signatories.

- i. GST Registration Certificate and GST Returns for the last two quarters. (self-attested)
- ii. The xerox copy of PAN CARD (self-attested)
- iii. Income Tax Returns for last 3 years. (self-attested)
- iv. Authorized Dealership Certificate. (self-attested)
- v. EMD of 2% minimum in the form of account payee DD issued by any scheduled commercial bank in favour of Principal, Rajdhani College, Bhubaneswar Payable at Bhubaneswar. EMD of unsuccessful bidders will be returned within 15 days after opening of the quotation.
- vi. Certificate to the effect that the bidder has not been black listed/debarred/not found guilty as mentioned in **Annexure – 2**.
- vii. Undertaking to comply with terms and conditions of the Quotation Call Notice and supply & install wherever necessary, within the stipulated time **(Annexure – 3)**.
- viii. Product catalogue, wherever required.
- ix. Other required documents, if any.

9. The Bidders are requested to submit price quotations department wise (separate page of price quotation for different departments).

10. The time scheduled for the Quotation called will be as follows.

- i. Floating of advertisement for the Quotation Call Notice in newspaper; dt. 20.12.2024.
- ii. Last date of receipt of sealed quotations by Speed Post / Regd. Post/by Hand at the Office of the undersigned; dt. 13.01.2025, 2.00 PM.
- iii. Opening of sealed quotations dt. 13.01.2025, 2.30 PM at the Chamber of the Principal. The bidders / their authorized representatives are advised to remain present at the time of opening of sealed quotations.
- iv. Tentative Date of placing of supply order dt. 20.01.2025.
- v. Delivery and installation, wherever required to be completed by dt. 10.02.2025.

11. Quotations received after the scheduled date & time shall be out rightly rejected.

12. Incomplete / Conditional Quotations may be rejected by the undersigned.

13. Advance payment is not allowed in any case. 100% payment will be released after completion of the supply & successful installation.

14. In case of any confusion or interpretation of any point mentioned above, the decision of the undersigned shall be final and binding.
15. The undersigned reserves the right to accept / reject any / all quotations without assigning any reason thereof.
16. In case of any legal dispute, the same shall be dealt with in the Court of Law located in Bhubaneswar, Odisha.

Sd/- Principal
Rajdhani College, Bhubaneswar

Rajdhani College, Bhubaneswar

Annexure – 1

Rajdhani College, Bhubaneswar

ANTHROPOLOGY

Rajdhani College, Shubaneswar

RAJDHANI COLLEGE
ANTHROPOLOGY DEPARTMENT
CHEMICAL LIST

No	Chemical name (description)	No. Of unit
1	Abo blood grouping with rh-factor teaching kit	5
2	Black powder – lightning powder black latent finger print (two ounce)	2
3	White powder – rivea remedies white fingerprint powder for latent fingerprint (30 ml per pack)	2
4	PTC testing kit – paper strips – genetic taste testing (vial of 100) – 30g per strip	2
5	Isopropyl alcohol 99.9% pure 300ml rubbing alcohol	3
6	Multi circular concave cavity microscope slide for blood grouping	200
7	Glass stirrer 150mm*6mm	30
8	Lancet – stainless steel blood lancet	2
9	Gloves(s)	10
10	Gloves(m)	10
11	Gloves(l)	10
13	Tissue paper lint free	20
14	Pasture pipette 5ml	2 packs (100 pieces each)
15	Glass slide 75mm*75mm	200
16	Cotton bundles	10
17	Agarose (500gm)	2(500gm each)

18	Ethidium Bromide(500gm)	1ml
19	Tris base	2(500gm each)
20	EDTA	2(500gm each)
21	Boric acid	2(500gm each)
22	Distilled water	10

Rajdhani College, Bhubaneswar

BOTANY

Rajdhani College, Phubaneswar

CHEMICALS :(SRL/HiMEDIA/MERCK /any brand with ultra purity)

SLNO	NAME	UNIT	Quantity
1.	Ammonium hydroxide	500 ml	1
2.	Ammonium persulphate	500gm	1
3.	Anthrone	100gm	1
4.	Antibiotic disc (imipenem)	5 mcg	1
5.	Antibiotic disc (livofloxacin)	5 mcg	1
6.	Antibiotic disc (Polymyxin B)	5 mcg	1
7.	Antibiotic disc (Norfloxacin)	5 mcg	1
8.	Agarose powder low EEO	25 gm	1
9.	Buffer capsule 4.0	1PKT	1
10.	Buffer capsule 7.0	1 PKT	1
11.	Buffer capsule 9.0	1PKT	1
12.	Dextrose glucose	500gm	1
13.	E T B R (Ethidium bromide) dye	1 gm	1
14.	Fast green stain	100ml	1
15.	Gibberellic acid	25gm	1
16.	Naphthalene-1-acetic acid	25 gm	1
17.	Kinetin	25 gm	1
18.	Lead acetate	500gm	1
19.	Parafilm tape Roll	125'x4"	1
20.	Potassium chloride	500gm	1
21.	potassium sodium tartrate	500gm	1
22.	Sodium arsenate	500gm	1
23.	Sodium bicarbonate	500gm	1
24.	Sodium carbonate	500gm	1
25.	Tetramethyl Ethylenediamine (TEMED)	100ml	1
26.	Trichloro Acetic acid	100gm	1
27.	Tris HCL	100 mL	1
28.	Trypan blue stain	25 gm	1
29.	β mercaptoethanol	100ml	1

EQUIPMENTS:

Sl. No.	Specifications:-	Quantity
1.	<p>MONOCULAR MICROSCOPE: LYNX/MAGNUS/ OLYMPUS / EQUIVALENT</p> <ul style="list-style-type: none"> • Total Magnification: 40X -1000X. • Viewing Head: Siden topf Monocular head with 45° inclined and 360° Rotatable. • Nose Piece: Quadruple. • Eye pieces: WF10X / 18mm. • Achromatic Objectives DIN: 4X, 10X, 40X, 100X (Oil, SL). • Focusing Range: Co-axial coarse & Fine adjustment. 13mm fine division 0.002mm with tension control and locking stage. • Stage: Double layer Mechanical Stage 140mm X 140mm. • Moving Range: 60mm X 30mm. • Condenser: Abbe type N.A.1.25 with IRIS Diaphragm & Filter. • Illumination System: LED with brightness adjustable. 	04
2	<p>DISSECTING MICROSCOPE: ALMICRO/OLYMPUS/MAGNUS/LABO/EQUIVALENT</p> <ul style="list-style-type: none"> • Heavy round base, Metal fitting, Jointed arm • Optics:10X,20X Eyepiece • Stage Dimension :85mm ×75 mm • With spring stage clip 	02
3	<p>UV CHAMBER FOR TLC:SA INSTRUMENTS/DROPLET/EQUIVALENT</p> <ul style="list-style-type: none"> • Power: 230v • Dimension:15"×12"×10" • Light source: UV lamp • Tube volume:12 inch • Weight :4 kg • Wave length:254 nm-365nm • UV tube: Short UV and long UV 	01
4	<p>HERBARIUM PRESS: ALLWIN SCIENTIFICS/ EQUIVALENT</p> <ul style="list-style-type: none"> • Wooden rectangular plant press 	01

	<ul style="list-style-type: none"> • 35×24cm with screw and tightening nuts • Cork sheets inside for pressing and drying plant specimen. 	
5	DIGITAL COLONY COUNTER: B.P.Lab SOLUTION/LABTRONICS/HI-TECH/VESCA/EQUIVALENT <ul style="list-style-type: none"> • Display: Digital With 4digit LED • Range:0-9999 • Wattage :16W • Dimension:28×18×25 cm • Diameter:155mm • With Marking pen, Magnifying lens with stand 	01
6	CLEVENGER APPARATUS (ESSENTIAL OIL DETERMINATION APPARATUS):STANDARD SCIENTIFIC / AMTECH INDIA/BOROSIL/BOROCILICATE GLASS <ul style="list-style-type: none"> • 5 ml Receiver with stopcock • Oil Separator Tube • Condenser and 1000 ml flask • Capacity 1000 ml • Heating Unit 	01
7	OCULAR MICROMETER: <ul style="list-style-type: none"> • Scale-10mm • Least count:0.1mm • Dimension:19mm×1.5mm 	02

FURNITURE:

Sl. No.	Specifications:-	Quantity
1.	Refrigerator : LG /Equivalent <ul style="list-style-type: none">• Capacity: 260-265 liter• Energy efficiency: 3 star• Frost free• Double door• Convertible• Smart inverter compressor• External LED display• With Wi-Fi	01
2	Steel Rack : GODREJ/Equivalent <ul style="list-style-type: none">• Height-6ft• Width :905 mm• Depth:448mm• 1829mm, 6 bend panels 06 nos• All powder coated• L shape shoes for skid Resistance• Corner plate: 08 nos• Manufacturer register brand Embossing on product	02
3	INDUCTION COOKTOP(HEATER): PHILIPS/HAVELLS/PRESTIGE/EQUIVALENT <ul style="list-style-type: none">• Power consumption :1800-2000w• Power input : 220-240V• Control: Push Button• Display :LED	01

GLASSWARES AND LAB ACCESSORIES: BOROSIL/RIVIERA/JSGW/ANY BOROSILICATE GLASS

SL NO	NAME	QUANTITY
1.	Burette (50ml)	04 Pc
2.	Burette stand	02 Pc
3.	Glass dropper with rubber sucker	05 Pc
4.	Measuring glass beaker (1000ml)	10 Pc
5.	L shape glass rod	04 Pc
6.	Regent bottle with screw cap (250ml)	12 pc
7.	Test tube 15 ml	50 pc
8.	Mortar & pestle set, Porcelain (100ml)	10 pc
9.	Non- absorbent Cotton	2 PKT
10.	Inoculation loop (Nichrome)	02 pc

PLASTIC WARES: TARSON/POLYLAB/MOXCARE/EQUIVALENT

SL NO	NAME	QUANTITY
1	Measuring beaker with handle (1000ml)	05 Pc
2	Measuring beaker (500ml)	05 Pc
3	Utility tray (36*31*13 CM)	06 Pc
4	Wash Bottle	05 Pc

COMPUTER SCIENCE

Rajdhani College, Subaneswar

LIST OF EQUIPMENTS

Sl.No.	Type	Specification	Brand	Quantity
01.	i5 (Desktop)	12 th Gen, 8GB RAM, 512 SSD, 20" Monitor, Windows 11, Office 2021	HP or equivalent	1 no.
02.	UPS		APC or equivalent	1 no.

3.	Projector screen with stand	Mounting Type Tripod Mount Product Dimensions 2.44W x 1.83H Meters Material Imported Super High Gain Matt White Black Coated Fabric Display Dimensions 8 Ft.(Width) x 6 Ft.(Height)	Reputed Brand
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CHEMISTRY

Rajdhani College, Birbhaneswar

Furniture
Department of Chemistry, Rajdhani College
December, 2024

SL. NO.	ITEM	SPECIFICATION
1	Demonstration Table for Chemistry	-Size: 6'×2'×3' (H) -Made of seasoned Sal wood legs and frame -Provided with one drawer & cupboards on each side -Top shall be 18 mm granite slab based on BWR ply base or teak wood top duly painted with acid, alkali, heat resistant black paint.
2	Fixing of doors and shelves to the existing cupboards	-Size: 7'(H)×12' -Made of anti-termite BWR ply/board with lamination
3	Chemical Almirah	- Size: 7'(H)×19'(D)×6'(W) -Made of WPC Ply, Gap between the shelf shall be 9" and door shall be water proof, anti-termite BWP ply/board with lamination
4	Chemical Almirah	- Size: 7'(H)×19'(D)×5'(W) -Made of INPC Ply, Gap between the shelf shall be 9" and door shall be water proof, anti-termite BWR ply/board with lamination
5	Chemical Almirah	- Size: 7'(H)×7'(D)×2'(W) -Made of WPC Ply, provided with 5 shelves, fitted with anti-termite BWR ply/board door with lamination

Terms:-

-Firms regd. Under GST are eligible to quote.

Firms are required to provide proofs of supply of lab furniture to institutions within last five years.

-The firms should have annual transaction of Rs. One crore (excluding GST) consecutively for three years. Copy of audited balance sheet should be submitted.

Chemical& Laboratory Accessories
(Brand: SRL/MERCK/SIGMA/HIMEDIA/SD FINE-CHEM)
Department of Chemistry, Rajdhani College
December, 2024

SL NO.	NAME OF THE PRODUCT	CAPACITY
1	LEAD NITRATE	100g
2	POTASSIUM CHROMATE	500g
3	POTASSIUM BROMIDE	500g
4	SODIUM HYDROXIDE	500g
5	SODIUM SULPHITE	500g
6	SODIUM NITRITE	500g
7	STARCH	500g
8	ACETANILIDE	250g
9	SUCCNIC ACID	500g
10	ANILINE	500ml
11	BENZOYL CHLORIDE	500ml
12	2,4-DINITRO PHENYL HYDRAZINE	100g
13	N-PHENYL ANTHRANILIC ACID	25g
14	ACETIC ACID	500ml
15	HYDROCHLORIC ACID	500ml
16	SULPHURIC ACID	500ml
17	NESSLER'S REAGENT	100ml
18	HYDROGEN PEROXIDE	500ml
19	N,N-DIMETHYL ANILINE	500ml
20	STARCH-IODIDE PAPER	100 leaflets
21	LITMUS PAPER	100strips
22	NICHROME WIRE	80 wire
23	COPPER FOIL	1000mm*100mm
24	MORTAR AND PESTLE	550ml
25	CHINA DISH BASIN	60mm
26	MICRO PIPETTE	100-1000microliter
27	4-AMINO BENZOIC ACID	500g

Computer & Printer&Accessories
(Brand: Desktop PC: HP/LENOVO/ACER; Printer: HP/BROTHER/CANON/EPSON;
UPS: ZEBRONICS)
Department of Chemistry, Rajdhani College
December, 2024

SL. NO.	ITEM	SPECIFICATION
1	Desktop Computer with Display (Monitor), Keyboard and Mouse and Surge protector Extension Cord	<ul style="list-style-type: none"> • Processor: Intel Core i7-1355U (up to 5.0 GHz with Intel Turbo Boost Technology, 12 MB L3 cache, 10 cores, 12 threads), Memory: 16 GB DDR4-3200 MHz RAM (2 x 8 GB), Storage: 1 TB.SSD • Operating System & Software: Windows 11 Home, Microsoft Office Home & Student Edition 2021 • Display/Monitor:60.5 cm (23.8") diagonal, FHD, IPS, three-sided micro-edge, glossy, Brightness: 300nits Color Gamut: 72% NTSC Resolution: 1920 x 1080, Graphics: Intel UMA Graphics • Ports: 2 USB Type-A 5Gbps signalling rate;1 USB Type-C 5Gbps signalling rate, 1 headphone/microphone combo; 1 RJ-45 • Webcam: 1080p FHD IR tilt privacy camera with temporal noise reduction and integrated dual array digital microphones • Audio Features: Dual 2 W speakers Networking: Realtek RTL8852BE Wi-Fi 6 (2x2) and Bluetooth 5.3 wireless card (supporting gigabit data rate), • Keyboard: Wireless Keyboard and mouse combo and a high quality extension cord with surge protector
2	Desktop Computer with Display (Monitor), Keyboard and Mouse and Surge protector Extension Cord	<ul style="list-style-type: none"> • Processor: Intel Core i5-1335U (up to 4.6 GHz with Intel Turbo Boost Technology, 12 MB L3 cache, 10 cores, 12 threads), Memory: 16 GB DDR4-3200 MHz RAM (2 x 8 GB); Storage: 1 TB.SSD • Operating System & Software: Windows 11 Home, Microsoft Office Home & Student Edition 2021 • Display/Monitor: 60.45 cm (23.8") diagonal, FHD, IPS, three-sided micro-

		<p>edge, glossy, Brightness: 300nits Color Gamut: 72% NTSC Resolution: 1920 x 1080;three-sided micro-edge, anti-glare, 300 nits, 99% sRGB; Graphics: Intel Iris X^e Graphics</p> <ul style="list-style-type: none"> • Ports: 2 USB Type-A 5 Gbps signalling rate; 1 USB Type-C 5Gbps signalling rate • Webcam: 1080p FHD IR tilt privacy camera with temporal noise reduction and integrated dual array digital microphones • Audio Features: Dual 2 W speakers Networking: Realtek RTL8852BE Wi-Fi 6 (2x2) and Bluetooth5.3 wireless card (supporting gigabit data rate) • WirelessKeyboard and mouse combo, a high quality extension cord with surge protector
3	Laser Printer; All in One/Print/Scan/Copy/Wireless	<ul style="list-style-type: none"> • Printer Type: Laser Printer; Functionality : Print, Scan & Copy; Print Output: Monochrome; Connectivity- Wi-Fi, Network& USB ; Scanner Type - Flatbed; Scanner Scanner (if exist): Yes; Scanner resolution (if exists) - Up to 19200 x 19200 dpi (interpolated), Up to 1200 x 1200 dpi (from Scanner Glass), Up to 600 x 600 dpi (from ADF) • OS Compatibility -Windows, Mac & Linux; Mobile Connectivity - All Android &Iphones; Hardware Interface: Wi-Fi, Ethernet & USB ; Enlarge/reduce option: Yes ; Auto double print: Yes • Maximum Print Speed (color): NA, Maximum Print Speed (Monochrome): 30 ppm Maximum Print Resolution (Color): NA; Maximum Print Resolution (Monochrome): 600 x 600 dpi, HQ1200 (2400 x 600 dpi) quality • A4, Letter, A5, A5 (Long Edge), A6, Executive; Max paper thickness (in GSM) - 105 GSM; [Maximum Input Sheet Capacity]-250 Sheets; Compatible Ink/Toner, Toner

		Cartridge; Additional Printer Function - Print, Scan & Copy
4	Inktank Printer, All in One/Print/Scan/Copy/Wireless/Color	<ul style="list-style-type: none"> • Printer Type: Inktank Printer; Functionality : Print, Scan & Copy ; Print Output : Colour & Monochrome ; Connectivity - Wi-Fi & USB ; Scanner Type - Flatbed ; Scanner (if exist): Yes ; Scanner resolution (if exists) - Up to 19200 × 19200 dpi (interpolated) (from Scanner Glass), Up to 1200 × 2400 dpi (optical)(from ADF), Up to 1200 × 6000 dpi (optical) • OS Compatibility -Windows, MacOS& Linux ; Mobile Connectivity - All Android &Iphones; Hardware Interface: Wi-Fi & USB ; Enlarge/reduce option: Yes ; Auto double print: Yes • Maximum Print Speed (color): 26 ppm, Maximum Print Speed (Monochrome): 30 ppm ; Maximum Print Resolution (Color): Up to 1200 × 6000 dpi; Maximum Print Resolution (Monochrome): Up to 1200 × 6000 dpi • Paper Size : A4, Letter, Legal, Mexico Legal, India Legal, Folio, Executive, B5 (JIS), A5, B6 (JIS), A6, Envelopes (C5, Com-10, DL, Monarch), Photo (4" x 6")/(10 x 15 cm), Photo 2L (5" x 7")/(13 x 18 cm), Index card (5" x 8")/(13 x 20 cm) ; Max paper thickness (in GSM) - 220 GSM; [Maximum Input Sheet Capacity]: 150 pages; Genuine Ink Bottles
5	UPS System for Desktop PC	600VA / 360W, Microcontroller Based, Supports Micro Load, Power Backup & Protection for Desktop PC, Routers and monitors

GEOGRAPHY

Rajdhani College, Phubaneswar

Laboratory Equipments for NEP U.G Geography Syllabus		Quantity
Sl No.	Name of the equipments	
1	Laptop (14 inch), SSD-512 GB, Windows 11, RAM 16 GB	1
2	Weather observation instruments	
2.1	Wet and Dry bulb Thermometer	1
2.2	Hygrometer	1
2.3	Aneroid Barometer	1
2.4	Anemometer (Robinson Cup)	1
2.5	Rain Gauge (As per IMD specification)	1
2.6	Wind vane Apparetus	1
2.7	Weather Maps (Multicolor Printed)	1
3	Pocket stereoscopes	5
4	Aerial Photographs (Black and white 25x25 cm)	1
5	Maps (by NATMO/ G.S.O.I)	
5.1	Indian physiography map	1
5.2	Indian Coastal features map	1
5.3	Course of river map	1
5.4	Glacial landform map	1
5.5	Coastal landform map	1
5.6	Ground water land form	1
5.7	Desert land forms map	1
6	Physical Geography models	
6.1	Ocean feature model	1
6.2	Hydrological cycle model	1
6.3	Model of plate Teetonic	1
6.4	Model of contour map interpretation	1
6.5	Model of volcons	1
6.6	Model of earthquake	1
6.7	Interior of the Earth Model	1
6.8	Model of Cyclone and Anti- cyclone	1
6.9	Model of fault and fold	1
7	Drawing and cartography equipment	
7.1	Engineering Drawing Box (Scale, Setsquare, Circualr protractor, Compass plain divider) (Rotring Pen/ pencil)	8

GEOLOGY

Rajdhani College, Phubaneswar

DEPARTMENT OF GEOLOGY
RAJDHANI COLLEGE, BHUBANESWAR

Laboratory Equipment List

Equipment Head

SL. NO	NAME OF SPECIMEN AND SPECIFICATION	QUANTITY
1.	<p>Trinocular Petrological Microscope with Camera: Specification: Type: Upright Polarizing Microscope with Orthoscopic/Conoscopic</p> <p>Optical system: UIS2 Optical System/LED transmitted and reflected light illumination</p> <p>Bulb: 12 v 30w Halogen/LED</p> <p>Illumination system: 12V, 30W stabilized DC power transformer-built in. 3 built in filter, Illumination adjustment, Light preset switch</p> <p>Focusing mechanism: Vertical movement of the stage by the roller guide, stroke per rotation: Fine ~0.1mm, Coarse: ~15mm Coaxial coarse and fine focusing handle, sensitivity 1 micrometer</p> <p>Observation tube: Binocular Pol Tube</p> <p>Polarized light: Built-in Bertrand lens for orthoscope/conoscopic observations. Bertrand Field Diaphragm</p> <p>Revolving nosepiece: Inward quadruple revolving nosepiece with centering mechanism</p>	01

Glassware Head

2	<p><u>Minerals Hand specimen:</u> Olivine, Nepheline, Hornblende, Tremolite, Actinolite, Sillimanite, Kyanite, Tourmaline, Topaz, Beryl, Hypersthene, Azurite, Malachite, Serpentine, Chalcedony, Augite, Diopside, Epidote, Microcline, Monazite, Rutile, Zircon Total – 22 nos.</p>	22 (Each 1 nos.)
3	<p><u>Minerals Thin section:</u> Olivine, Nepheline, Hornblende, Topaz, Hypersthene, Serpentine, Olivine, Pyroxene, Amphibole, Biotite, Fluorite, Garnet, Gypsum, Monazite, Plagioclase, Quartz, Topaz</p>	17 (Each 1 nos.)

	Total – 17nos.	
4	<u>Rock Hand Specimen:</u> <ul style="list-style-type: none"> • <u>Igneous rocks</u> (Pegmatite, Dolerite, Peridotite, Dunite, Granite, Kimberlite) • <u>Sedimentary rocks</u> (Limestone, Dolomite, Arkose, Greywacke, Shale) • <u>Metamorphic Rock</u> (Slate, Basic Granulite, Granite-Gneiss) Total –15nos.	15 (Each 1 nos.)
5	<u>Rock Thin section</u> <ul style="list-style-type: none"> • <u>Igneous rock</u> (Granite, Pegmatite, Syenite, Carbonatite, Kimberlite, Lamprophyre) • <u>Sedimentary rock</u> (Shale, Dolomite) • <u>Metamorphic rock</u> (Khondalite, Charnokite, Quartzite, Phyllite) Total –12 no.	12 (Each 1 nos.)
6	<u>Palaeontology Models:</u> <ul style="list-style-type: none"> • <u>Trilobita</u> (Paradoxides, Calymene, Phacops, Phillipsia) • <u>Brachiopoda</u> (Spirifer, Rhyconella, Lingula, Productus, Atrypa, Terebratula) • <u>Pelecypoda</u> (Arca, Cardita, Cardium, Exogyra, Gryphea, Ostrea, Mytillus, Pecten, Trigonia, Venus) • <u>Gastropoda</u> (Turbo, Natica, Murex, Voluta, Physa) • <u>Cephalopoda</u> (Nautilus, Goniatites, Phylloceras, Belemnites, Ceratites) • <u>Corals</u> (Calceola, Stylina, Heliolites, Halysites) • <u>Echinoidia</u> (Micraster, Hemiaster) Total models - 36	36 (Each 1 nos.)
7	Plastic Sample Tray (120nos.)	120

Infrastructure Head

8	Projector Screen: Diagonal 120 inch. Overall Size: Length= 59.6-inch, Height=104.5 inch	01
9	Stainless Steel Rack for Sample Specimen: Length 1.22 meters, Height= 1.82 meters, Depth= 0.36m with 6 slanting shelves	03
10	Granite Table top with attached storage cabinet: Table of size 150" (L) x 24" (D) x 30" (H) made of 22G Cr sheet and 1 ½ square pipe frame with full length cup board	01

	<p>of Enos Provided with a shelf and top shall be Granite based on ply. All MS portion shall be powder coated.</p> <p>-Do- Table size 108" (L) x 24" (D) x 30" (H) with continues four cupboard.</p>	
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Rajdhani College, Bhubaneswar

MATHEMATICS

Rajdhani College, Durgabaneswar

LIST OF EQUIPMENTS

Sl.No.	Type	Specification	Brand	Quantity
01.	i5 (Desktop)	12 th Gen, 8GB RAM, 512 SSD, 20" Monitor, Windows 11, Office 2021	HP or equivalent	2 nos.
02.	UPS		APC or equivalent	2 nos.

3.	Projector screen with stand	Mounting Type Tripod Mount Product Dimensions 2.44W x 1.83H Meters Material Imported Super High Gain Matt White Black Coated Fabric Display Dimensions 8 Ft.(Width) x 6 Ft.(Height)	Reputed Brand
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Rajdhani College, Bhubaneswar

PHYSICS

Rajdhani College, Phubaneswar

EQUIPMENT

SL No	Equipment	Specification	Qty
1	Computer	Intel i5/8GB RAM/ 5.12 GB SSD/21.5" display/ Windows 11 Home/ Wared keyboard and mouse/ wifi-bluetooth	2
SL No	Lab Furniture	Specification	Qty
1	Computer Table		2

Rajdhani College, Bhubaneswar

PSYCHOLOGY

Rajdhani College, Bhujaneswar

Equipment

1. Raven's progressive matrices

Qty No. 5 sets of card (each set contains 12 items) = 60 items

2. Thematic Apperception Test (TAT)

Quantity – 31 cards

Sl.No.	Type	Specification	Brand	Quantity
01.	i5 (Desktop) with SPSS package	12 th Gen, 8GB RAM, 512 SSD, 20" Monitor, Windows 11, Office 2021	HP or equivalent	1 no.
02.	UPS		APC or equivalent	1 nos.

STATISTICS

Rajdhani College, Bhubaneswar

LAB EQUIPMENT

Scientific Calculator - 25 nos. approx.

Brands & Models Name

1. CASIO FX-991ES plus 2nd generation
2. CASIO FX-82ms 2nd gen
3. ORPAT Sc-401 Ms Voilet
4. Bambalio Bl- 991ms-401

Rajdhani College, Bhubaneswar

ZOOLOGY

Rajdhani College, Phubaneswar

CHEMICAL LIST FOR DEPARTMENT OF ZOOLOGY-2024-2025			
ALL CHEMICALS AND KITS MUST BE OF MOLECULAR BIOLOGY GRADE AND 99%-99.9% PURE			
Sl. No.	Chemicals	Amount	Quantity
1	Calf thymus DNA	1 gm	1
2	tRNA	1gm	1
3	MS222	10 gm	1
4	Potassium chromate indicator solution	125 ml	5
5	Glucose	500 gm	2
6	Fructose	500 gm	2
7	Lactose	500 gm	2
8	Leishman stain	25 gm	1
9	Methanol	1 lit	10
10	Fast green	10 gm	1
11	Mercuric bromophenol blue	10mg	1
12	Methyl green pyronin stain	5 gm	1
13	Periodic acid solution	250 ml	
14	Schiff's Reagent	500 ml	1
15	Mayer's Haematoxylin	100 ml	2
16	Wax block	1 Kg	1
17	Activated charcoal	500 gm	1
18	Phenol red indicator powder	25 gm	2
19	Basic fuchsin dye	25 gm	
20	Light green SF	25 gm	1
21	Anhydrous Potassium metabisulfite (K ₂ S ₂ O ₅)	10 gm	1
22	Sulfurous acid (H ₂ SO ₃)	500 ml	1
23	Ascorbic acid	50 gm	1
24	Meta phosphoric acid	100 gm	1
25	Acetone	500 ml	1
26	Anthrone	25 gm	1
27	Oxalic Acid	500ml	1
28	PCR Kit (With dNTP mix, 10X Reaction buffer, MgCl ₂ , Taq DNA polymerase and PCR grade water)	250 rxn	1 kit
29	2,6-dichlorophenol indophenol	5 gm	1
30	Sodium bicarbonate	500 gm	1
31	Protein A/G Sepharose	2 ml	1
32	Methylene Blue	25 gm	2
33	Sodium chloride	500gm	1
34	Sodium hypochlorite	1 lit	1
35	Potassium chloride	500 gm	1
36	Double Distilled water	10 lit	5

37	Ocean Salt	500 gm	1
38	Prestained protein ladder 9- 250 kDa)	250 microL	1
39	Tris Base	500gm	4
40	Sodium deoxycholate	25gm	1
41	Acrylamide	250 gm	2
42	Bis acrylamide	251 gm	1
43	DMSO	100 ml	1
44	Glycerol	500 ml	1
45	Glycine	1 kg	1
46	Non-fat dried milk	500 gm	1
47	SDS	500 gm	2
48	BSA 10mg/ml		1
49	PMSF	10 gm	1
50	Protease inhibitor cocktail	1 ml	1
51	HEPES	250 gm	1
52	Plasmid Mini Prep Kit	50 extractions	1
53	Total RNA Mini Kit	50 extractions	1
54	TEMED	100 ml	1
55	Agarose	250 gm	1
56	Tween 20	500 ml	1
57	Ferrous ammonium sulphate	250 mg	1
58	Calcium chloride	500 mg	1
59	Boric Acid extrapure, 99.5%	500mg	1
60	Magnesium Chloride Anhydrous extrapure, 98%	250 mg	1
61	EDTA Disodium Salt Dihydrate extrapure AR, 99.5%	500 mg	2
62	Ethanol molecular biology grade	500 ml	2
63	Potassium acetate pure 99%	250 mg	1
64	Glycerol for molecular biology, 99.5%		
65	Potassium hydroxide pellet extrapure, 95%	250 mg	1
66	Sodium hydroxide pellets purified, 97%	251 mg	1
67	LB- Media (Molecular biology and bacteria culture grade)	250 mg	2
68	LB- Agar (Molecular biology and bacteria culture grade)	250 mg	2
69	Formalin	500ml	2
70	Crystal violet	25 gm	1
71	Carbol Fuschin	10 gm	1
72	Safranin	25 gm	1
73	Gram's Iodine	250ml	1
74	HCl	500 ml	1
75	NaOH	500 gm	1
76	Sodium thiosulfate	25 gm	1

77	KOH	500 gm	1
78	NaI	100 gm	1
79	PVDF membrane (Trans-Blot Transfer Pack, 0.2 μ PVDF Membran, Pkg of 1 roll, 0.2 μ m, 26 cm x 3.3 m, bulk membrane for high binding (150–160 μ g/cm ²) immunoblotting	26 cmX3.3 cm roll	1 roll
80	Chromatography paper (Whatman No1)	15cm X15 cm	100 sheets
81	Bradford reagent	500ml	1
82	DNA isolation kit	25 rxn	2 kits
	Plastic Ware		
1	Combi-lock Rack(Autoclavable, Holds 50ml, 15ml, 1.5ml and .5ml tubes)		2
2	Magnetic stirrer beads of different sizes Autoclavable	1 pkt	1pkt
3	Pasture pipette	100 pcs	1
5	Wash bottles	500 ml	10
7	50ml tube holding rack	Capacity-20 tubes	10
8	15ml tube holding rack	Capacity-12 tubes	10
9	Ice bucket	2	2
10	Burette stand	10	10
11	Gloves (Medium)	100 pairs	5
12	Gloves (Large)	100 pairs	5
13	Flat end tips for western gel loading (Autoclavable)	20- 200 microL	1 pkt
14	1.5 ml microfuge stand	24 tube holding capacity	5
15	1.5 ml microfuge stand	48 tube holding capacity	5
16	Thin walled PCR microcentrifuge tubes (0.5 microL) Autoclavable	100 pcs	1pkt
17	0.2 to 20 microL tips box Autoclavable		5
18	20 to 200 microL tips box Autoclavable		5
19	200- 1000 microL tips box Autoclavable		5
20	1.5 ml microcentrifuge tubes Autoclavable	500 pcs	1
21	15 ml tubes Autoclavable	25/Pack	10
22	50 ml tubes Autoclavable	25/Pack	10
23	Syringe filter 0.45 microM	25 pcs	2 pkt
24	Syringe filter 0.22 micro M	25 pcs	2 pkt

	Glassware		
1	Borosil glass bottle-2000ml (Autoclavable)	2000 ml	2
2	Borosil glass bottle-1000ml (Autoclavable)	1000 ml	10
3	Borosil glass bottle-500ml (Autoclavable)	500 ml	15
4	Borosil glass bottle -250ml (Autoclavable)	250 ml	20
5	Borosil glass bottle -100ml (Autoclavable)	100 ml	20
6	Borosil glass spreader (Autoclavable)		10
7	Glass cylinders 10ml (Autoclavable)	10ml	10
8	Glass cylinders 25ml (Autoclavable)	25ml	10
9	Glass cylinders 50ml, (Autoclavable)	50ml	5
10	Glass cylinders 100ml, (Autoclavable)	100 ml	5
11	Glass cylinders 250ml, (Autoclavable)	250ml	5
12	Glass cylinders 500ml, (Autoclavable)	500ml	2
13	Glass cylinders 1L(Autoclavable)	1L	2
14	Slides (Borosil and equivalent) (Autoclavable)		10 packets
15	Conical flask (100ml) (Autoclavable)	100ml	10
16	Conical flask (250ml) (Autoclavable)	250ml	10
17	Conical flask (500ml) (Autoclavable)	500ml	10
18	Beaker 100ml(Autoclavable)	100ml	10
19	Beaker 250 ml(Autoclavable)	250ml	10
20	Beaker 500ml(Autoclavable)	500ml	5
21	Beakers 1L(Autoclavable)	1L	2
22	Glass pipette 10 ml (Autoclavable)	10 ml	10
23	Burette		10
24	Couplin Jar		20
25	Glass jars for chromatography with lid	200mmX200mm	5
26	Cover slip (Borosil and equivalent)		10 pkt
DEPARTMENT OF ZOOLOGY			
MUSEUM SPECIMEN AND SLIDES			
Protozoa			
1	Whole mount of Euglena		2
2	Whole mount of amoeba		2
3	Whole mount of Paramecium		2
4	Binary fission in Paramecium		2
5	conjugation in paramecium		2
Porifera			
6	T.S. of sycon		2
7	L.S. of sycon		2
8	Hyalonema		1

9	Euplectella		1
10	Spongilla		1
11	Spicules		1
12	Spongin fibers		1
	Cnidarians		
13	Obellia		1
14	Physalia		1
15	Millepora		1
16	Aurellia		1
17	Tubipora		1
18	Corallium		1
19	Alcyonium		1
20	Gorgonia		1
21	Metridium		1
22	Pennatula		1
23	Fungia		1
24	Meandrina		1
25	<i>Madrepora.</i>		1
26	<i>Ctenophore</i>		1
27	Life cycle stages of <i>Fasciola hepatica</i>		1
28	Life cycle stages of <i>Ascaris lumbricoides</i>		1
29	Life cycle stages of <i>Taenia solium</i>		1
	Annelids		
30	<i>Aphrodite Nereis</i>		1
31	<i>Heteronereis</i>		1
32	<i>Sabella</i>		1
33	<i>Serpula</i>		1
34	<i>Chaetopterus</i>		1
35	<i>Pheretima</i>		1
36	<i>Hirudinaria</i>		1
	Arthropods		
37	Crab		1
38	<i>Limulus</i>		1
39	<i>Palamnaeus</i>		1
40	<i>Palaemon</i>		1
41	<i>Daphnia</i>		1
42	<i>Balanus</i>		1
43	<i>Sacculina</i>		1
44	<i>Eupagurus</i>		1

45	<i>Scolopendra</i>		1
46	<i>Julus</i>		1
47	<i>Periplaneta americana</i>		1
48	termites		1
49	honey bees		1
50	<i>Peripatus</i>		1
	Molluscs		
51	<i>Chiton</i>		1
52	Dentalium		1
53	<i>Pila</i>		1
54	<i>Doris</i>		1
55	<i>Helix</i>		1
56	<i>Unio</i>		1
57	<i>Ostrea</i>		1
58	<i>Pinctada</i>		1
59	<i>Sepia</i>		1
60	<i>Octopus</i>		1
61	<i>Nautilus</i>		1
	Echinodermata		
62	<i>Pentaceros/Asterias</i>		1
63	<i>Ophiura</i>		1
64	<i>Clypeaster</i>		1
65	<i>Echinus</i>		1
66	<i>Cucumaria</i>		1
67	<i>Antedon</i>		1
68	digestive system of Earthworm		1
69	nephridia of earthworm (virtual)		1
70	T.S. through pharynx		1
71	T.S. through gizzard		1
72	T.S. through typhlosolar region		1
73	Mounting parts of <i>Periplaneta americana</i>		1
74	dissection of digestive system of <i>Periplaneta americana</i>		1
75	nervous system (Virtual) of <i>Periplaneta americana</i> .		1
	Protochordata		
76	<i>Balanoglossus</i>		1
77	<i>Herdmania</i>		1
78	<i>Branchiostoma</i>		1
79	Urochordata		1

80	Sections of <i>Balanoglossus</i> through proboscis and branchio-genital regions		1
81	Sections of <i>Amphioxus</i> through pharyngeal		1
82	intestinal and caudal regions of <i>Amphioxus</i>		1
83	Permanent slides of <i>Herdmania</i> spicules		1
84	<i>Doliolum</i>		1
85	<i>Salpa</i>		1
	Agnatha		
86	<i>Petromyzon</i>		1
87	<i>Myxine</i>		1
	Fishes		
88	<i>Scoliodon</i>		1
89	<i>Sphyrna</i>		1
90	<i>Pristis</i>		1
91	<i>Torpedo</i>		1
92	<i>Chimaera</i>		1
93	<i>Mystus</i>		1
94	<i>Heteropneustes</i>		1
95	<i>Labeo</i>		1
96	<i>Exocoetus</i>		1
97	<i>Echeneis</i>		1
98	<i>Anguilla</i>		1
99	<i>Hippocampus</i>		1
100	<i>Tetrodon/ Diodon</i>		1
101	<i>Anabas</i>		1
102	Flat fish		
	Amphibia		
103	<i>Ichthyophis/Ureotyphlus</i>		1
104	<i>Necturus</i>		1
105	<i>Bufo</i>		1
106	<i>Hyla</i>		1
107	<i>Alytes</i>		1
108	Salamander		1
	Reptilia		
109	<i>Chelone</i>		1
110	<i>Trionyx</i>		1
111	<i>Hemidactylus</i>		1

112	<i>Varanus</i>		1
113	<i>Uromastix</i>		1
114	<i>Chamaeleon</i>		1
115	<i>Ophiosaurus</i>		1
116	<i>Draco</i>		1
117	<i>Bungarus</i>		1
118	<i>Vipera</i>		1
119	<i>Naja</i>		1
120	<i>Hydrophis</i>		1
121	<i>Zamenis</i>		1
122	<i>Crocodylus</i>		1
	Mammalia		
123	<i>Sorex</i>		1
124	Bat (Insectivorous and Frugivorous)		1
125	<i>Funambulus</i>		1
126	<i>Loris</i>		1
127	<i>Herpestes</i>		1
128	<i>Erinaceous</i>		1

INSTRUMENT LIST FOR DEPARTMENT OF ZOOLOGY-2024-2025

Sl. No.	Item	Specification	Quantity
1	BOD Incubator (Of Thermo, Remi, Genei, BD Bioscences and equivalent)	<p>Temperature range 0°C to 60°C, Unique design of thermal barrier for better energy efficiency · Machine filled PUF insulation to eliminate void pockets · Powerful fan motor for forced air circulation to maintain uniform conditions inside chamber Heating by long life SS tubular heaters · Chamber calibration port on side · Adjustable trays · Hermetically sealed Compressor with CFC · free refrigerant · High temperature safety cut off & alarms for high / low set parameters · Sensor failure alarm · Electrical circuit breaker · Time delay for compressor switch on · Overload cut off relay for compressor · Rounded inner chamber for easy cleaning · Attractive door profile · Microprocessor controller with LED display of · Temperature with set, process value & audio visual alarm (standard) · CLS (Custom Logical Safe) control system with logical safety devices. Internal Volume (Litres): 280 Number of tray: 3 Internal Dimensions : 660w x 655d x 650h mm External Dimensions: 800wx 1095dx1220h mm Temperature Range & Accuracy: 0°C to 60°C, ±0.1°C Temperature control: Microprocessor with PT100 sensor Display: 1" – 7 Segment, Big Size LED Power Failure Alarm: Visual Alarm Door Open Alarm: Audio Visual Alarm in case door open for over one minute Temperature Variation Alarm: Set Temperature ± 2°C, Audio Visual Alarm Illumination: 8 Watts Fluorescent Tube Internal Body Material: Stainless Steel – 304 grade External Body Material: Powder Coated CRCA Steel Insulation: 70 mm minimum for Body & 80 mm for Door, CFC free polyurethane foam Noise Level: Less than 65 db(A) with 3 kva voltage stabilizer</p>	1
2	Orbital incubator shaker (Of Thermo, Remi, Genei, BD Bioscences, Tarson and equivalent)	<p>Brushless induction Motor with variable frequency drive suitable for continuous operations, Step less variable frequency drive ensures gentle shaking start and maintains set speed, Counter balanced mechanism for high stability in uneven load of different sized flasks, Universal Shaking Platform to accommodate different sized assorted flasks, Maximum shaking capacity " 9 Flasks x 2000 ml, Powerful fan motor for forced air circulation to maintain uniform conditions inside chamber, Machine filled PUF insulation to eliminate void pockets Unique design of thermal barrier for better energy efficiency Heating by long SS tubular heaters, Additional tray to store samples, Chamber calibration port on side, Microprocessor controller with 4 LCD display for display of shaking speed & temperature, 9 programs memory, Power failure and resumption recorded with data and time. High temperature safety cut off & alarms for high / low., set temperature, Electrical circuit breaker, Rounded inner chamber for easy cleaning, Attractive door profile Temperature Range & Accuracy: 5°C to 60°C, ± 0.5°C, Internal Volume (Liters): 215, Platform Size: 580mm x 600mm, Shaking Speed range (RPM): 20 to 250 Shaking Amplitude: 25 mm, Internal Dimensions : 660w x 765d x 650h mm, External Dimensions : 800w x 1150d x 1300h mm Temperature control: Microprocessor with P, 100 sensor. Display: 4" LCD Screen, Large size Display for ease of Reading., Power Failur, Alarm : Audio Visual Alarm, Door Open Alarm : Audio Alarm in case door open for over one</p>	1

		<p>minute Temperature Variation Alarm : Set Temperature $\pm 2^{\circ}\text{C}$, Audio Visual Alarm, Illumination: 8 Watts Fluorescent Tube, Internal Body Material: Stainless Steel – 316 grade, External Body Material: Stainless Steel – 304 grade, Insulation (CFC free polyurethane foam): 70 mm, minimum for Body & 80 mm for Door Noise Level : Less Than 65 db (A), 3 kva voltage stabilizer</p> <p>Clamps for:</p> <ol style="list-style-type: none"> 1. 50/100 ml - 5 2. 150/250 ml -5 3. 500 ml -5 4. 1000 ml -2 	
3	Research weighing machine (Mettler Toledo, Sartorius and equivalent)	<p>Complete with glass wind shield and one Touch. Function key having sliding door Opening/closing System. Internal Calibration. Overload Protection: Yes Levelling feet and Level indicator Anti theft device Unit conversion facilities. Brilliant Back lit display Maximum Capacity: 220 gm. Readability: 0.1 mg. Repeatability: 0.1 mg. Linearity: 0.2 mg. Response time: 2 sec. AC Adapter 230 Volts. Tare range full Platform dimension: 90 mm. Balance dimension : 347x204x345mm (L X W X H) Diagnostics: Easy running of balance diagnostics test e.g. key pad test & repeatability test Other inbuilt application: Piece counting Percentage weighing, Dynamic weighing, Statistics weighing, Totaling, free factors, recall, High performance mono Block weighing cell for fast and accurate result. Cal Int : At a key stroke with and internal weight Protective Covers: Encloses the entire housing protecting the balances from stains and scratches. Protecting the balances from stains and scratches.</p>	2
4	Microwave	<p>32 L SlimFry™ Convection Microwave Oven. The durable CERAMIC INSIDE™ is easy to keep clean and scratch-free. Its smooth surface can be cleaned without scrubbing and won't discolor over time. It's also highly rust and scratch-resistant, so it last longer. Type-Convection, Power Consumption (Microwave)-1400 W, Wide Grill enables to gels more evenly by improving coverage up to 99% compared to conventional grill heaters. Dimensions (W x H x D) Outside (Include Handle) 523 x 309 x 506 mm, Oven cavity 373 x 233 x 363 mm. Colour: Metallic black.</p>	1
5	ph Metre (Mettler Toledo, Thermo Fisher and equivalent)	<p>Parameter: pH; ORP Ready-to-measure kit pH measuring range: 2–16 pH resolution: 0.01; 0.1 pH accuracy (\pm):0.01 mV measuring range: 0 mV resolution: 1 mV accuracy (\pm):1 Temperature Range: -5 $^{\circ}\text{C}$ – 105 $^{\circ}\text{C}$ Temperature Resolution: 0.1 $^{\circ}\text{C}$ Temperature accuracy (\pm):0.3 $^{\circ}\text{C}$ Memory: 200 measurements</p>	1
6	Magnetic stirrer (Tarson, Remi, Genei and equivalent)	<p>Rugged Aluminium die cast housing. Acid & Alkali resistant glass ceramic top. Reflective bright white colour enhances solution visibility. An energy regulator supplies power to the heating element a certain percentage of the time depending upon the dial setting. Electronic speed control from 100-1000 RPM. Temp Range 150-500 C. Stirring max capacity – 5L. Ceramic plate dimension 18x18. Dimension: 19 x11 x21 cm. Power: Vac 240, Hz 50, Amps 4.7, Watts: 1115</p>	1
7	Mini /western transfer apparatus (Genei, Tarson or equivalent)	<p>Electro Transfer Mini Dual System, Principal material-Acrylic, Buffer reservoir-1 no, Gel size 8X7 cm, Filter pads- 1pkt, Cushion pads-1pkt, Heat exchanger-1no, connecting cord- 1 set (1black and 1 red), No. of platinum electrode cells-1 anode and 1 cathode, Lid- 1 no, Connecting cord should fit either Tarsons or iGenei power pack.</p>	1

8	Mini -20 Cooler	a) Polycarbonate with Nontoxic Gel, b) Protects critical samples from temperature fluctuations, c) freeze for 24 hours at -20c - -25c before use, d) 20 Places 1.5ml/ 2ml tube	2
9	Ice flaker machine	Air cool, Control board display, Stainless steel, corrosion free exterior and interior Adjustable feet, Capacity: 100 kg for 24 hours. Voltage: 220 V, Compressor:Danfoss, Evaporator Fan: EBM, Ice Type: Flake, External Dimension: 520x550x960mm (WxDxH), Refrigerant: R134a	1
10	Micro centrifuge (Tarson, Remi, Borosil and equivalent)	a) A Quiet and Efficient unit, with a small footprint. b) RPM and run-time can be set on the digital display, using the membrane key pad. c) Pulse option also provided. Standard fixed angle rotor for 6x1.5ml micro tubes. d) Optional extra rotor for 12x0.5ml micro tubes. e) Speed upto 10,000 RPM, RCF: 5585g.	2
11	PCR (Biorad, Perkin Elmer, Thermo Fisher and equivalent)	Thermal Cycler – 96x0.2ml. tube/96 Well plate 8x12 Method of heating/cooling- Peltier Method of temp monitoring- Calculated & Block Programming: Step-based graphical Reporting: Exportable run gs etc. Instant Incubation: Yes Memory: 500 typical programs on board; Unlimited with USB flash drive expansion Dimensions : 26 x 47 x 23 cm (WxDxH) Communication : 1 USB port Electrical Approvals : IEC, CE Display: 5.7" VGA color touch screen Operating Temp :15-31 deg C ambient ample capacity: 96 wells x 0.2ml 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 Heated lid - Up to 110 deg C Maximum Ramp Rate- Upto4.0 deg C /s Average Ramp Rate-Up to 2.5 deg C / s Reaction Volume: 1 to 100 µl Gradient capability: Yes Gradient Accuracy: ±0.5°C of programmed temperature Row uniformity: ±0.5°C well-to-well (with in row) within 30 sec Gradient range: 30-100°C Temperature Differential Range: 1-25°C Power supply: 230 volt, 50 Hz.Load 700 watt, wt.9kg	1
12	Homogenizer with 5ml, 10ml, 15ml,25ml and 100 ml compatible cups	Suitable for homogenizing of tissues at high speed available. Chuck to hold shaft up to 10 mm dia. fitted with Teflon grinding pestle (50ml).cup supplied as standard. Glass homogenizing cup with rod supplied as standard ,Stirring Shaft: 8 x 275 MaxVolume:Upto100ml, 5ml.homogenizing cup, 10ml.homogenizing cup, 15ml.homogenizingcup, 25 ml. homogenizing cup, 100ml homogenizingcup	1
13	Gel Rocker (Remi, Genei, Tarson, BD Bioscience and equivalent)	Metal platform with non-slip rubber mats moving in gentle see-saw motion, movement precisely controlled with a DC motor, cushion and rubber feet to prevent unit from slipping, Time set or continuous, both options should be available.	1

14

**UV, VIS
spectrophotometer
(Thermo Fisher,
Antech, Systronics
and equivalent**

UV- Vis Spectrophotometer, double beam with 8 cell holder, 1cm glasscuvette (2 pcs), 1 cm quartz cuvette (2 pcs) ,power cord AC 220V/50Hz and software, user manual and dust cover. UV/VIS Double Beam Spectrophotometer With Variable Bandwidth For Better Results Use it as a stand-alone spectrophotometer or as a PC- controlled instrument Light path design: double beam AN-UV-7000N series' double light path design can prevent circuit fluctuation and stray light to ensure stability of the instrument Long path light design AN-UV-7000N series' unique 520 mm long light path design greatly improved resolution and the bandwidth can reach 0.5 nm 16 mm optical base AN-UV-7000N series use a rigid 16 mm diecast aluminum base as theiroptical mount to ensure the stability and reliability 6 inches LCD display AN-UV-7000N series have a 6 inches LCD display to show results andcurves directly on the screen Powerful software functions Multi functions like spectrum scanning, standard curve, kinetics, multi wavelength scanning, DNA/Protein testing can be operated directly on the spectrophotometer and all corresponding curves and data can be displayed directly on the PC Multi functions on spectrophotometer Multi functions operated directly on the spectrophotometer and display the test results' curve and data: wavelength scanning, standard curve, kinetics, multiwavelength scanning, DNA/Protein test Perfect calibration system All baseline, wavelength, dark current can be calibrated automatically to keep good running conditions Data output Equipped with USB port to connect with a PC, the software comes standard with the instrument FDA 21 CFR Part 11 compliance software available as an option Technical Specification Optical System: Double Beam (1200 Lines/mm Grating) Wavelength Range: 190-1100 nm Bandwidth: 0.5,1.0, 2.0, 4.0 nm Wavelength Accuracy : ± 0.1 nm (D2 656.1) , ± 0.3 nm @all Wavelength Repeatability : ≤ 0.1 nm Photometric Accuracy : ± 0.005 Abs Photometric Repeatability : ± 0.002 Abs Photometric Range:-0.3-3 A,-0-200% T,-0-9999 C Stability: ± 0.0003 A/h @ 500 nm Baseline Flatness: ± 0.0015 Abs Noise: ± 0.0005 Abs Stray Light: $\leq 0.03\%$ @ 220 nm,360 nm Data Output Port: USB Printer Port: Parallel Port Display: 320*240 Dots LCD Lamps: D2 Lamp &W Lamp Detector : Silicon Photodiode Power Requirements: AC 220V/50Hz Dimension: 625*430*206mm Weight: 32 kg


1

15	Micro-auto-pipette 0.2-2 microl (Eppendorf, Thermo Fischer and equivalent)	Can pipette volumes ranging form 0.2-2 microliter, Mechanical piston stroke pipette using the air-cushion principal, Volume identification supported by colour codes, 120-degree adjustable finger rest, Silent and light volume adjustment, with volume setting ring, with volume display window, separate ejector button, white separate marks the decimal place, two button operation, minimum force associated with attaching and ejecting pipette tips, High chemical resistance, Fully autoclavable.	2
16	Micro-auto-pipette 2-20 microl (Eppendorf, Thermo Fischer and equivalent)	Can pipette volumes ranging form 02-20 microliter, Mechanical piston stroke pipette using the air-cushion principal, Volume identification supported by colour codes, 120-degree adjustable finger rest, Silent and light volume adjustment, with volume setting ring, with volume display window, separate ejector button, white separate marks the decimal place, two button operation, minimum force associated with attaching and ejecting pipette tips, High chemical resistance, Fully autoclavable.	2
17	Micro-auto-pipette 20-200 microl (Eppendorf, Thermo Fischer and equivalent)	Can pipette volumes ranging form 20-200 microliter, Mechanical piston stroke pipette using the air-cushion principal, Volume identification supported by colour codes, 120-degree adjustable finger rest, Silent and light volume adjustment, with volume setting ring, with volume display window, separate ejector button, white separate marks the decimal place, two button operation, minimum force associated with attaching and ejecting pipette tips, High chemical resistance, Fully autoclavable.	2
20	Micro-auto-pipette 200-1000 microl (Eppendorf, Thermo Fischer and equivalent)	Can pipette volumes ranging form 200-1000 microliter, Mechanical piston stroke pipette using the air-cushion principal, Volume identification supported by colour codes, 120-degree adjustable finger rest, Silent and light volume adjustment, with volume setting ring, with volume display window, separate ejector button, white separate marks the decimal place, two button operation, minimum force associated with attaching and ejecting pipette tips, High chemical resistance, Fully autoclavable.	1
21	Vortex mixer (Tarson, BD Bioscience, Genei and equivalent)	Heavy metal base & rubber feet prevent movement of the shaker during use. Choice of Continuous and touch mode, Variable speed control, Includes three attachments one hand insert, micro tube insert & cup attachment, Maximum speed 3000 RPM	4

22	Trinocular Microscope (Olympus, Lawrence and Mayo, Leica and equivalent)	<p>High eye point wide field eyepiece PL10X/22mm with adjustable diopter, Plan achromatic objective 4X/0.10 (infinity, Plan achromatic objective 10X/0.25 (infinity, Plan achromatic objective 40X/0.65 (infinity, Plan achromatic objective 100X/1.25 (infinity, 30°inclined,gemel trinocular head,eyepeice tube can be rotated 360°.The eye point adjustable:375-428.5mm .inter-pupillary range:48-76mm, splitting ratio for binocular: trinocular=5:5, Low position coaxial focus system with upper limited and tension adjustment, Coded quintuple nosepiece, Built in 100V-240V transformer, 5W LED illuminator with continuous intensity control and adjustable color temperature (3000K-7000K), Support power supply of charging bank (PD protocol must be supported). With screen display, brightness memory function.ECO function, 210mmX171mm mechanical stage move range: 51mm×78mm; precision: 0.1mm, X-axis linear drive. Upgradable to Fluorescent, Phase contrast, Dark field and Polarizing application (Optional). N.A.1.25 Koehler illuminatory condenser with socket for phase contrast and dark field accessories spanner M4 each set in a foam then packed in a carton. With micrometer.</p>	1
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Rajdhani College, Bhubaneswar

INFRASTRUCTURE LIST FOR DEPARTMENT OF ZOOLOGY-2024-2025

Sl. No.	Item	Specification	Quantity
1	Deep freezer cum refrigerator (Samsung, IFB, LG and equivalent)	Black colour refrigerator with user Manual with Warranty Card, Capacity-702 L, French Door Bottom Mount, French Door Refrigerator, With upper fridge 420 L and lower freezer-282 L, Convertible freezer, With RO water filter, dispenser, autofill pitcher in fridge section and dual auto ice maker in freezer lower section. Defrosting Type- Direct Cool, Digital Inverter Compressor, Number of doors-4, Toughened glass, built-in-stabilizer, Body Material-Stainless steel, With door lock, With door alarm, With child lock, Net Height- 1825 mm, Net Depth-723 mm, Net Width-912 mm, Weight-138 kg, With external stabilizer. Price inclusive of installation, demo, 1 Year Comprehensive Warranty on Product and 20 Years Warranty on Compressor + 3 years of extended warranty.	1
2	Liquid nitrogen tank (5 litre)	Capacity (Metric)-5 L, Height (English) Exterior 18.2 in., Height (Metric) Exterior 46.2 cm, Diameter (English) 8.8 in., Diameter (English) Inside Neck 2.2 in., Diameter (Metric) 22.4 cm , Diameter (Metric) Inside Neck 5.6 cm, Shipping Weight (English) 12 lb., Shipping Weight (Metric) 5.4 kg, Weight (English) 8 lb., Weight (Metric) 3.6 kg, Should be designed to bring liquid nitrogen to other cryovessels, Lightweight aluminum dewars assure low-static evaporation rates, withdrawal device, 12mL dipper,	1
3	4 door bookshelf (Goodrej, Methodox, Fetherlite and equivalent) 	4 Doors with cam lock to keep the contents secure and keep them well-maintain for a longer duration. Must be built using CRCA steel while the doors are made of glass so one can view the title from the spine of the book without opening the case. Additionally, the bookcase should have well-protected exterior which is coated by Epoxy Polyester Powder. Moving or restructuring the layout should not be a challenge. Dimensions W x H x D (cm)-91.4 x 174.2 x 32, Primary Material-CRCA Steel, Finish Color- Greyish white, Certifications- GreenGuard, Sales Package-1 Bookcase, Warranty-1 Year	2

4	Liquid nitrogen tank (10 litre)	<p>Capacity (Metric)-10 L, Height (English) Exterior18.2 in., Height (Metric) Exterior46.2 cm, Diameter (English)8.8 in., Diameter (English) Inside Neck2.2 in., Diameter (Metric)22.4 cm , Diameter (Metric) Inside Neck5.6 cm, Shipping Weight (English)12 lb., Shipping Weight (Metric)5.4 kg, Weight (English)8 lb., Weight (Metric)3.6 kg, Should be designed to bring liquid nitrogen to other cryovessels, Lightweight aluminum dewars assure low-static evaporation rates, withdrawal device, 12mL dipper.</p>	1
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Rajdhani College, Bhubaneswar

CERTIFICATE

“I Certify that I have not committed any offence”.

- a) Under the Prevention of Corruption Act-1988 or
- b) the Indian Penal Code or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of execution of a public procurement contract.
- c) I have not been debarred by any Central / State Govt Organization/Bodies for the last 3 years.

Signature of the
Authorized Signatory
with Designation

UNDERTAKING

I/We _____ S/D/W/o
_____ in the capacity of
M/s _____ hereby declare that
I/We will be abided by the terms and conditions of the Quotation Call
Notice No. _____ Dt. _____ issued by Office of the
Principal, Rajdhani College, Bhubaneswar and will supply and install
the Lab Equipment / Furniture, whenever necessary, within the
stipulated time, if selected and order is placed with us, failing which
actions can be initiated against me/us.

Signature with seal