



Office of the Principal

RANGAPARA COLLEGE, RANGAPARA

ৰঙাপৰা মহাবিদ্যালয়, ৰঙাপৰা

(Affiliated to Gauhati University, UGC Recognised under 2(f) & 12 (B))

P.O.- Rangapara, Dist - Sonitpur 784 505

Dr. Ranjan Kalita, M.A. MMC, Ph.D.

Principal

&

Research Supervisor, G.U.

94351 80914
99543 87 932

Ref: RC/NIT/2020/35

Date: 13- 2-11-2020

NOTICE INVITING TENDER

FOR INSTALLATION OF LABORATORY & SUPPLY OF CHEMICAL/INSTRUMENTS/EQUIPMENTS AND LAB FURNITURES

Sealed quotations affixing non-refundable court fee stamp of Rs.8.25 (Rupees Eight and paise twenty five) only are invited in two bid system from the Manufacturer/Authorized dealer/Distributor/Vendor having at least three years experience FOR **INSTALLATION OF LABORATORY & SUPPLY OF CHEMICAL/INTRUMENTS/EQUIPMENTS & LAB FURNITURES** items on prescribed form up to the dates mentioned for the Four Laboratory Installation and supply of Laboratory Instruments/Equipments/Chemical/Lab Furniture to the **Science Stream of Rangapara College, Rangapara, Sonitpur, Assam-784505.**

The details of the tender are given below:

Date of publication of tender notification on official website and other Social Media Group	14/11/2020
Sale of tender document commence from	17/11/2020
Last date for Sale of tender document	26/11/2020, 12:00 pm
Last date for receipt of duly filled in tenders	26/11/2020, 1:00 pm
Date and Time of the opening Technical Bids	26/11/2020, 2:00 pm
Date and Time of the opening Financial Bids	26/11/2020, 4:00 pm

Tender Paper can be also downloaded from the official websites www.rangaparacollege.com which should be accompanied by the requisite Tender cost of **Rs. 1000/-** in the form of demand draft drawn in favour of **Principal, Rangapara College** payable at Rangapara.


(Dr. Ranjan Kalita)
Principal
Rangapara College
Principal
Rangapara College



RC/NIT/2020/35 Dtd. 13-11-2020

Cost of Tender Document Rs 1000/-

TENDER DOCUMENTS

A. TENDERER'S ELIGIBILITY AND QUALIFICATIONS: Sealed quotations are invited from the eligible Manufacturer/Authorized dealer/Distributor/Vendor at least three years experience of **Lab Installation & supplying of Laboratory Chemical, Instruments, Equipments & Lab Furniture.**

B. EARNEST MONEY DEPOSIT: Tenderer shall furnish along with their tender, an Earnest Money deposit for **Rs. 10,000/- (Rupees Ten Thousand Only)** in the form of Demand draft drawn in favour of the **Principal, Rangapara College** payable at Rangapara. Failure of the tenderer to furnish required earnest money deposit along with their tender will result in rejection of their tender. The EMD of unsuccessful bidders will be returned as promptly as possible after the expiry of the period of tender validity without interest. Advance stamp receipt for refund of EMD should be enclosed with the tender documents.

C. TERMS & CONDITIONS

i. Earnest money in any other form of Cash or Cheque shall not be accepted. EMD of unsuccessful Tender shall be refunded on their application only after an intimation of rejection of their tender is sent to them or on expiry of the validity period whichever is earlier.

ii. No pages shall be removed from or replaced in the tender. The tenderer shall have to sign each page of the Tender document at the time of submission of the tender.

iii. The College at its discretion may extend the last date of submission of tender and opening of tenders.

iv. Late and **delayed tenders will not be considered** and shall be returned unopened to the Bidder.

v. If tenderer gives wrong information, college reserves the right to reject such bid at any stage and forfeit the Earnest Money Deposit.

vi. Incomplete bids, not in proper sealed covers are liable to be rejected.

vii. Conditional tenders will be rejected without assigning any reason.

viii. If technical bid contains any price information the offer will be summarily rejected.

ix. Canvassing in any form is liable for rejection.

x. Unsigned tenders/bids, unattested, correction and overwriting by bidders are also liable for rejection.

xi. Bids submitted without supporting documents bear liable to be rejected.

xii. Each page of the tender document including all annexure duly stamped and signed by the bidder and tender should be page numbered.

xiii. In financial bid the rate of each item should be inclusive of **all taxes, packing, forwarding, transit etc.**

xiv. **Quoting merely the lowest price does not confer any right to any bidder for award of supply order.** The Purchase Committee, reserves the right to select the equipment any bid under the grounds of specification compliance, technologically advanced quality, proven performance track record, brand reputation, service backup support & training, offer of additional / special features, compatibility with the existing System, etc.

xv. On the acceptance of the rates as per the approved tender, the supply order will be placed by the Head of the office of college.

xvi. The college will reserve the full right to open/consider the second envelope if and only if the college is satisfied with information contents in envelope No.1.

xvii. The college has the right to accept or reject any tender partly or fully without arising any reason thereof.

xviii. The items have to be supplied in standard packing at the premises of **Rangapara College, Rangapara, Sonitpur, Assam**

xix. In event of any loss, damage, breakage or leakage or any shortage the bidder shall be liable to make

good condition such loss and shortage found at the checking/inspection of the supplied Instrument/Equipment. "No extra cost" on such account shall be admissible.

xx. The tenderer at the time of final order/agreement will have to furnish **security deposit @3%** of total cost of the items accepted and ordered for supply by the college.

xxi. The amount of security deposit without any interest there on will be returned to the tenderer after 12 months or the expiry of the warranty period whichever is later from the date of supply subject to the surrender of money receipt in original in respective office.

xxii. The specimen of "**Agreement Bond**" will be provided along with letter of acceptance to the tenderer whose rate is accepted by the college.

xxiii. Installation & Delivery has to be completed/made **within 30 days** from the date of receipt of supply order.

xxiv. **Each item should be strictly as per the specification.** In case of any deviation the college has the right to reject the item. **Each item should be strictly as per the specification.** In case of any deviation the college has the right to reject the item.

xxv. The preferences will be given to the items bearing **ISI/ISO quality control** make for the laboratory instruments/equipment.

xxvi. Installation, successful demonstration of equipment in the respective department is obligatory.

xxvii. The training should be provided by the supplying companies for a minimum period of two days from the date of installation with an expert team.

xxviii. If any item covered under warranty fails, the same shall be replaced free of cost including all the applicable charges including shipping cost both ways.

xxix. In case of poor response from the supplier, the items of poor response will be retendered if necessary.

xxx. Final payment of Instrument/Equipment will be made only after installation and successful demonstration at the respective department of the college.

xxxi. If the tenderer fails to comply with supply order within the specified period his order will be cancelled and EMD will be forfeited.

xxxii. In case of any dispute in respect of the quotation, all legal matters shall be instituted within the jurisdiction of the place where the purchaser ordinarily resides.

Instructions to be followed by the Supplier/Tenderer

Submission of Tender bid (sealing and marking of bids)

Bid should be submitted in two envelopes as mentioned below: -

1. Envelope -1 Technical Bid (Duly Sealed) should contain

- a. Application form (as per Annexure-I)
- b. Tender fee in the form of demand draft of Rs.1000/-
- c. EMD of Rs 10,000/- in the form of demand draft for each instrument separately.
- d. Technical bid form (as per Annexure-II) duly filled.
- e. Copies of all certificate/documents in support of technical Bid.

Important: Above (a) to (e) not enclosed, the envelope 2 will not be opened

This Envelope should be marked as

Envelope- 1 "Technical Bid" for Item Code.....

Name and address of the bidder should be clearly written on this envelope. Signature of Bidder & Seal

2. Envelope –2 Financial Bid (Duly Sealed) Should contain

- a. The supplier should quote the rate inclusive of all expenses, charges, taxes, duties, transportation, packing and forwarding, insurance etc.
- b. The rate in both words and figure without any correction or over writing should be quoted in financial bid.

This Envelope should be marked as

"Envelope 2 – Financial Bid for Item Code.....

Name and address of the bidder should be clearly written on this envelope. Signature of Bidder & Seal



TENDER APPLICATION FORM

To
The Principal,
Rangapara College, Rangapara, Sonitpur, Assam, PIN-784505
 Sir,

With reference to your Tender Notice no **Ref: RC/NIT/2020/35 Date: 13- 2-11-2020**, I would like to submit Tender for **Laboratory Installation and Supply of Laboratory Instruments/ Equipments/ Chemicals/ Lab Furniture** accepting the terms & conditions mentioned in the tender document.

Item Code.....

Item Name

1	Name of the Bidder/Company name (Person to be contacted)	
2	Full Postal Address	
3	Telephone Nos./Mobile Nos./ name of the Person Post held	
4	Email ID	
5	PAN No.	
6	GST No.	
7	Bidding submitted for the Brand (Please specify)	
8	EMD Demand Draft No. & date	
9	Issuing Bank Details	
10	Amount (in INR)	10000/-

Undertaking

I, the undersigned certify that I have gone through the terms & 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 of one year and it is certified that the rates quoted are minimum and rational as per existing market rate.

I give the rights to the competent authority of the Office of The Principal, Rangapara College, Rangapara, Sonitpur, Assam, PIN-784505 to forfeit the Earnest Money Deposit (EMD)/security Deposit by me/us if any delay occurs on my/agents part or fail to abide by the provision of the bidding document.

I hereby undertake to execute the **installation of laboratory work and 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/tenderer
 (Office Seal)



Financial Bid

Format for quoting the rates of the Installation/Instruments/Equipments

Name of the bidder/tenderer

Item Code.....

Item Name.....

Make/Model No.....

Sr. No	Price details	Price per Unit
1.	Cost of Chemical/Instrument/Equipment/Furniture with essential accessories	
2.	GST payable	CGST
		SGST
		IGST
3.	Packing and forwarding charge up to station of dispatch	
4.	Transportation and insurance charges up to destination	
5.	Installation, commissioning and training charges if any	
6.	Any other charges, if any	
	Total Price inclusive all charges and tax (Sum of 1 to 6)	

Total Bid price in figures.....

In words.....

Seal and signature of bidder

Note:-Price should be quoted in prescribed format only as per above.



ACCEPTANCE OF TERMS & CONDITIONS OF TENDER

1. I/We have downloaded/obtained the Tender Document(s) for the above-mentioned Tender enquiry no. from the Website: www.rangaparacollege.com
2. I/We hereby certify that I/we have read entire terms & conditions of the tender documents including all documents like annexure, schedules etc. which form part of the tender document and I/we shall abide by the terms & conditions/clauses contained therein.
3. The corrigendum(s) issued from time to time by Rangapara College Authority to have also been taken into consideration, while submitting this acceptance letter.
4. I/We hereby unconditionally accept the tender conditions of above-mentioned tender document(s)/corrigendum(s) in totality/entirely.
5. In case any provisions of this tender are found violated, Rangapara College Authority shall be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely and we shall not have any claim/right against Rangapara College, Sonitpur, Assam in satisfaction of this condition.
6. I/We confirm that we or our Proprietor/Director/Partner have not been blacklisted or debarred or declared ineligible for corrupt/fraudulent practices either indefinitely or for a particular period of time by any Government or other agency. I/we further declare that no criminal case is registered on pending against the firm/company or its owner/partners/directors anywhere in India. Also, there are no contractual restrictions or legal disqualifications or other obligations which prohibit the applicant from entering into tender process.

-

Date:

Palce:

(Seal & Signature of the Bidder)


(Dr. Ranjan Kalita)
Principal
Rangapara College
Principal
Rangapara College



Physics Laboratory (Lab-01) Rangapara College

Item Name: Dark Room

Item Code –PH-01

Sl. No	Items	Qty
A	Exhaust Fan	1
B	Tables	3 (4 ft x 2.5 ft)
C	Stools	5
D	Shelf	1 (5 ft (H) x 3 ft (W))

Item Name: General Physics Lab

Item Code –PH-02

Sl. No	Items	Qty
A	Tables	3 (6 ft x 4ft) with drawers and inner shelf
B	Attached Table to the wall	1 (13 ft x 9 ft)
C	White/Black Board	1 (6 ft x 4 ft)
D	Notice Board	1 (medium size)
E	Stools	20
F	Wash basin	1
G	Plug Sockets	(2 x 16 A, 10 x 5A)

Item Name: Physics Lab Equipments

Item Code –PH-03

Sl. No.	Name of the Equipment/Experiment	Item Description
1.	Vernier Callipers	6 Nos (complete setup including a spherical and cylindrical body, a cubical body and a beaker)
2.	Screw gauge	6 Nos (complete setup including wire)
3.	Spherometer (To determine the radius of curvature of a given spherical surface)	6 Nos (complete setup including the lens etc.)
4.	Simple Pendulum Apparatus	3 Nos (complete setup including the pendulum stand, bob, thread and stopwatch etc.)
5.	Using Parallelogram law to determine the weight of a given body	2 Nos. (complete setup including the weights, piece of viewing mirror, board fitted with pulley etc.)
6.	Find the coefficient of friction between a block and a horizontal surface	2 Nos. Complete set up including spirit level, pulley etc.
7.	Inclined Plane Experiment (Relation between gravitational pull of earth and angle of inclination of an inclined plane)	2 Nos. Complete set up
8.	Young's Modulus Expt. (Searle's Apparatus)	2 Nos (Complete Setup including the Young's apparatus, weights etc)
9.	Helical Spring Apparatus (To plot a graph between load and extension)	2 Nos. (Complete setup including fitted spring, graduated scale stand and weights)
10.	Boyles Apparatus (To study the variation of volume	2 Nos. (Complete setup including

	with pressure for a sample of air at constant temperature)	the Boyles Apparatus, Barometer, Thermometer etc.)
11.	Surface Tension Expt.	2 Nos. (Complete apparatus including Travelling microscope, beakers, holding stand, capillaries, needle etc.)
12.	Viscosity Expt. (Stokes Apparatus)	2 Nos. (Complete setup including cylindrical jar, small balls etc.)
13.	Newton's cooling Experiment	2 Nos. (Complete setup)
14.	Sonometer (To study the relation between the frequency and length of a given wire)	2 Nos. (Complete setup)
15.	Resonance Tube Expt. (To determine the speed of sound in air)	2 Nos. (Complete setup including Resonance tube, tuning fork etc.)
16.	Specific Heat Expt. (To determine the specific heat of a solid, liquid by method of mixtures)	2 Nos. (Complete setup)

17.	Bar pendulum	2 Nos. (complete set up including bar pendulum, clamps, stopwatch etc.)
18.	Kater's Pendulum	2 Nos. (complete set up including kater's pendulum, clamps, stopwatch etc.)
19.	Moment of Inertia of a cylinder about two different axes of symmetry by torsional oscillation method	2 Nos. (Complete setup including the given torsion pendulum, two identical cylindrical masses, stop watch, meter scale, etc.)
20.	Coefficient of Viscosity of water by Capillary Flow Method (Poiseuille's method)	2 Nos. (Complete setup)
21.	Determine the Modulus of Rigidity of a Wire Static method.	2 Nos. (Complete setup including Barton's apparatus etc.)
22.	Sextant Expt. (Determine the height of a building using a Sextant)	2 Nos. (Complete Setup)
23.	Determine g and velocity for a freely falling body using Digital Timing Technique.	2 Nos. (Complete setup)

24.	Multimeter (To measure the resistance, AC & DC Voltages, DC Current, Capacitance and Checking electrical fuses)	3 Nos. (Complete setup)
25.	RC circuit box (To study the characteristics of RC circuit)	2 Nos. (Complete setup)
26.	Potentiometer (To measure the unknown resistance)	2 Nos. (Complete setup)
27.	Carey Foster's Bridge (To measure the unknown resistance)	2 Nos. (Complete setup)
28.	Anderson Bridge (To determine self-inductance of a coil)	2 Nos. (Complete setup)
29.	LCR circuit box (To determine the Q-factor, bandwidth, resonant frequency etc.)	2 Nos. (Complete setup including the LCR circuit box, Signal generator etc.)
30.	Ballistic Galvanometer (Determine a high resistance by leakage method)	2 Nos. (Complete setup)
31.	Thevenin and Norton theorems verification	2 Nos. (Complete setup)

Item Name: Waves & Optics Lab**Item Code –PH-04**

Sl. No.	Name of the Equipment/Experiment	Item Description
1.	Melde's experiment (To determine the frequency of an electric tuning fork)	1 Nos. (Complete setup)
2.	Fresnel Biprism Experiment (To determine wavelength of sodium light)	2 Nos. (Complete setup including sodium source)
3.	Newton's ring experiment (To determine wavelength of sodium light)	2 Nos. (Complete setup)
4.	Prisms	5 Nos. (3x60 ⁰ and 2x45 ⁰)
5.	Familiarization with: Schuster's focusing, determination of angle of prism.	2 Nos. (Complete setup including spectrometer etc.)
6.	To determine refractive index of the Material of a prism using sodium source.	1 No (Complete setup)
7.	To determine wavelength of (1) Na source and (2) spectral lines of Hg source using plane diffraction grating.	1 No (Complete setup)
8.	To determine dispersive power and resolving power of a plane diffraction grating.	1 No. (Complete setup)
9.	To determine the dispersive power and Cauchy constants of the material of a prism using mercury source.	1 No (Complete Setup)

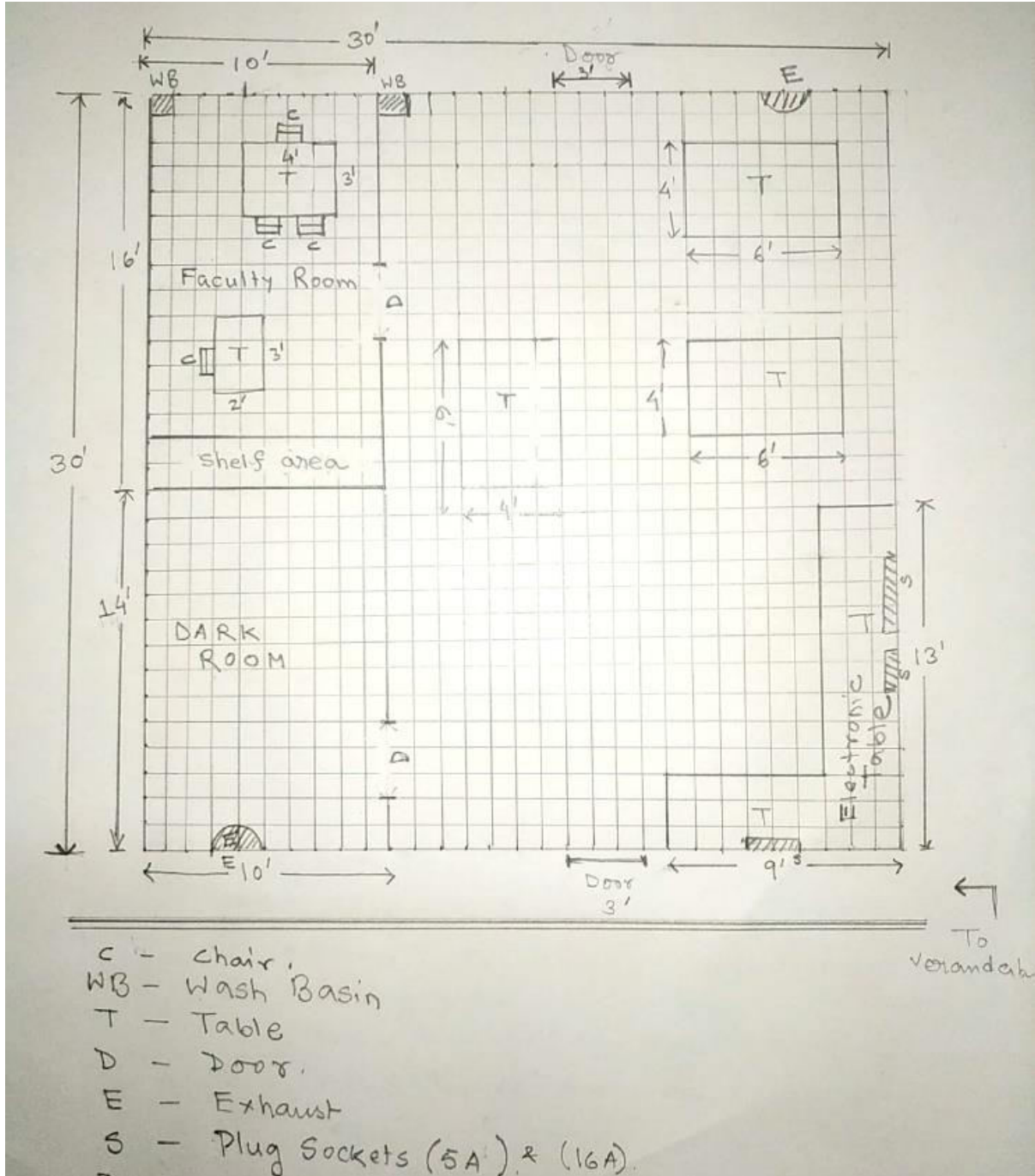
Item Name: Electrical Part**Item Code –PH-05**

Sl. No.	Items	Item Description
1.	Breadboard	5 pc
2.	Connecting Wires	Normal copper wires, Male-Male, Male-Female, Female-Female types
3.	Ammeter (AC and DC)	5 pc (μA to mA)
4.	Voltmeter (AC and DC)	5 pc (mV to V)
5.	Wire Cutter (Plier)	2 pc
6.	Rectifier Diodes (1N4007) and Zener Diode (1N4729A)	A Few Nos.
7.	Light Emitting Diodes (Various Colors)	A Few Nos.
8.	Battery Eliminator (0 – 12V) DC	2 pc. (Price in the range of Rs. 2000)
9.	Transistors (BC-547, NPN and BC557 PNP)	10 pc each type
10.	OPAMP- IC 741	5 Pc
11.	Resistance Box	5 Nos
12.	One-way Key (Plug Key)	5 Nos
13.	Copper Wire (thread wrapped)	1 coil


 (Dr. Ranjan Kalita)
 Principal
 Rangapara College
Principal
Rangapara College

Signature of the Bidder with Seal

Physics Laboratory Layout Rangapara College




 (Dr. Ranjan Kalita)
 Principal
 Rangapara College
Principal
Rangapara College



Chemistry Laboratory (Lab - 02)

Item Code- CH-01

Item Name: Chemistry Instruments

Sl No	Instruments/apparatus	Model/Make	Qty
1	Ostwalds Viscometer (college pattern)		5
2	Stalaganometer bent graduated		5
3	Burette (50 mL)		10
4	Burette stand for 2 burettes		10
5	Funnel filtering, dia 100 mm		10
6	Funnel stand for 2 funnels		10
7	Digital balance 0.001 gm		1
8	Digital pH meter		1
9	Digital conductivitymeter		1
10	Digital potentiometer		10
11	Glass rod		10
12	Conical flask 250 mL		10
13	Calorimeter		4
14	Test tube 15×125 mm		10 pkt
15	Test tube holder		24
16	Wire gauge with frame & stand		24 & 10
17	Beaker 500 mL		12
18	Beaker 250 mL		10
19	Pipette 25 mL		5
20	Pipette 10 mL		2
21	Nickel spatula		10
22	Fusion tube/centrifuge tube, conical bottom graduated	50 mL	1\
23	Reagent bottle (wide mouth) 250 mL & 500 mL		30 & 10
24	Volumetric flask 250 mL		12
25	Volumetric flask 100 mL		6
27	Thermometer (200 degree)		4
28	Measuring cylinder 100 mL		2

29	Measuring cylinder 50 mL		2
30	Measuring cylinder 10 mL		2
31	Water bath, copper		4
32	Ignition tube		1 pkt
33	Platinum wire		2
34	Watch glass		12
35	Litmus paper (blue & red)		5 pkt
36	Glass tubes to make capillary tubes		1pkt
37	Single distillation panel (glass) to prepare distilled water	Borosil	1 (if possible)
38	RefrigeratorRefrigerator		1

Item Name: Chemistry Lab Chemicals

Item Code- CH-02

Sl No	Name of Chemicals	Model/Make	Qty
1	Hydrochloric acid		500 mL
2	Sodium hydroxide		500 gm
3	Sulphuric acid		500 mL
4	Nitric acid		500 mL
5	Ammonium hydroxide		500 gm
6	Phosphoric acid		500 gm
7	Ferric Chloride		500 gm
8	Ferrous sulphate		500 gm
9	Copper sulphate		500 gm
10	Na metal		100 gm
11	Sodium Nitroprusside		50 mg
12	AgNO ₃		25 gm
13	Potassium permanganate		500 gm
14	Ethanol		2×500 mL
15	Methanol		500 mL
16	Acetone		500 mL
17	Isopropyl alcohol		500 mL
18	Butanol		500 mL

19	Hexane		500 mL
20	Carbon tetrachloride		2×500 mL
21	Na ₂ CO ₃		500 gm
22	Potassium carbonate		500 gm
23	NaHCO ₃		250 gm
24	Bromine solution		100 mL
25	Sodium nitrite		500 gm
26	P-nitro aniline		500 mL
27	Phthalic anhydride		500 gm
28	2,4-dinitrophenyl hydrazine		100 gm
29	Tollens reagent		250 mL
30	Fehlings solution A and B		500 mL each
31	Potassium hydroxide		500 gm
32	Hydroxylamine hydrochloride		100 gm
33	Ceric ammonium nitrate		10 gm
34	Acetyl chloride		500 mL
35	Acetic acid		500 mL
36	Sodium chloride		500 gm
37	Potassium chloride		500 gm
38	β-naphthol		100 gm
39	Stannous chloride		100 mL
40	Ammonium chloride		500 mg
41	Lead Acetate		500 gm
42	Benzaldehyde		500 mL
43	Phenol		500 mL
44	O-chloro phenol		500 mL
45	Salicylic acid		500 mL
46	Oxalic acid		500 gm
47	Benzoic acid		500 gm
48	Toluene		500 mL
49	Urea		500 gm

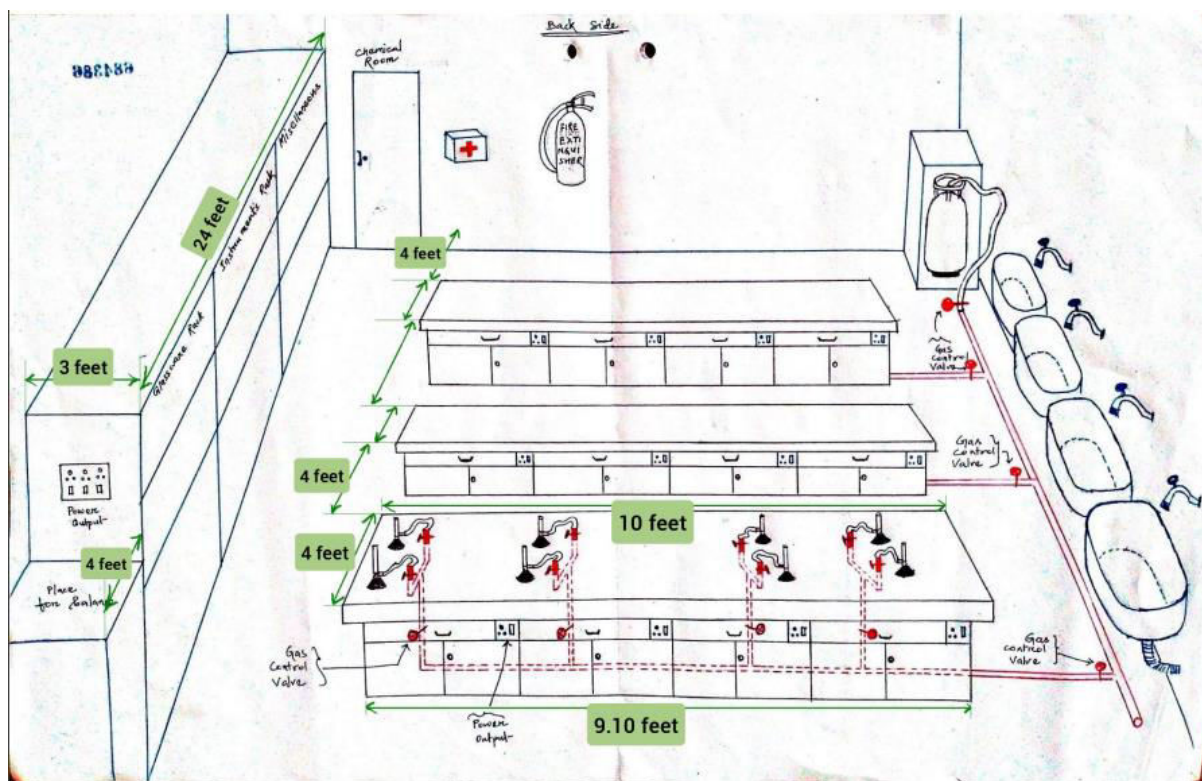
50	Benzamide		100 gm
51	Acetamide		500 gm
52	Aniline		500 mL
53	Potassium dichromate		500 gm
54	Sodium thiosulphate		500 gm
55	Cobalt nitrate		100 gm
56	Calcium fluoride		100 gm
57	Zinc dust		100 gm
58	Zinc metal		100 gm
59	Silica		25 gm
60	Barium chloride		500 gm
61	Calcium chloride		500 gm
62	Ferric chloride		500 gm
63	Magnesia mixture		25 mg
64	Ammonium phosphomolybdate		-
65	Ferrous sulphate		500 gm
66	Chloroform		100 mL
67	Amyl alcohol		100 mL
68	Diphenylamine		100 gm
69	Anthranilic acid		25 gm
70	Sulphanilic acid		100 gm
71	α -Naphthylamine reagent		100 gm
72	p-amino dimethyl aniline		5 gm
73	Starch		500 gm
74	Potassium nitrite		500 gm
75	Aluminium powder		
76	Sodium sulphite		500 gm
77	Ammonium carbonate		500 gm
78	Potassium ferrocyanide		500 gm
79	Disodium hydrogen phosphate		500 gm
80	Potassium iodide		250 gm

81	Stannous chloride		100 gm
82	Oxalic acid		500 gm
83	Mercuric chloride		25 gm
84	Sodium bismuthate		5 gm
85	Ammonium thiocyanide		100 gm
86	Dimethylglyoxime		100 gm
87	α -Nitroso- β -naphthol reagent		10 gm
88	Ammonium sulphate		500 gm
89	Ammonium oxalate		500 gm
90	Hydrogen peroxide		250 mL
91	Methyl orange		100 mL
92	Phenolphthalein		100 mL
93	Iodine		100 gm
94	Crystal violet		125 mL
95	Alum		250 gm
96	Glucose		500 gm
97	Fructose		500 gm
98	Sucrose		500 gm
99	Sodium acetate		500 gm
100	O-nitrophenol		25 gm
101	P-nitrophenol		25 gm
102	O-aminophenol		5 gm
103	P-aminophenol		-
104	Mohr's salt		500 gm
105	Glycine		100 gm
106	Aspartic acid		5 gm
107	Glutamic acid		5 gm
108	Tyrosine		-
109	Bis(dimethylglyoximato)nickel (II)		-
110	Ethylene diamine tetraacetic acid (EDTA)		500 gm
111	Magnesium sulphate		500 gm

112	Magnesium chloride		500 gm
113	Zinc sulphate		500 gm
114	Zinc chloride		500 gm
115	Zinc nitrate		500 gm
116	Methyl acetate		500 mL
117	Ethyl acetate		500 mL
118	Glycerol		500 mL

Signature of the Bidder with
Seal

Chemistry Lab Layout




(Dr. Ranjan Kalita)
Principal
Rangapara College
Principal
Rangapara College



BOTANY LABORATORY (LAB-03)

Item Name: **BOTANY LAB INSTRUMENTS**

Item Code- **BT-01**

Sl.No	Name of the Instruments	Utilization	Quantity
1.	Simple Microscope	Used to get a magnified View for dissection purpose.	8
2.	Compound Microscope	Used for viewing Microscopic organisms.	8
3.	Digital Weighing Balance	For measurement of smaller quantity of samples.	1
4.	Single glass Distillation Unit	Preparation of distilled water.	1
5.	Autoclave	Sterilization of Glass wares and preparation of Culture media.	1
6.	pH meter Digital	Determination of the acidic or basic properties of a sample.	2
7.	Incubator	Regulation of temperature for incubation of samples.	1
8	Laminar Air flow	Culturing Microbial plates.	1
9	Oven	Drying and heating samples.	1
10	U.V. Visible Spectrophotometer	Measurement of Optical Density of a sample.	1
11	Thin Layer Chromatography	Separation of different Pigments	2
12	Microtome	Used for sectioning very thin slices of root or shoot tips.	1
13	Centrifuge Machine	Separation of Fluids or different materials based on their density	1
14	Homogenizer	To Homogenize	1
15	Mechanical Shaker	Used in Particle analysis. Used to shake different stack of samples.	1
16	Water Bath	Incubation of samples in water.	1
17	Electrical conductivity Meter	Required for measuring the electrical conductivity of the sample.	1
18	Camera Lucida	Used as a drawing aid for the purpose of superimposed view.	2
19	Lux Meter	Measurement of intensity of light from a power source.	1
20	Ocular scale and stage micrometers	Measurement of pollen grains and smaller particles viewed under microscope.	8
21	Magnetic Stirrer	This device is used to make a stir bar, immerse in a liquid, quickly spin, or stirring or mixing a solution.	1
22	Haemocytometer	Haemocytometer allow operators to quickly estimate the concentration of cells in a sample.	1

Item Name: **BOTANY LAB ACCESSORY & TOOLS**

Item Code- **BT-02**

Sl.No.	Name of the Equipments	Specifications	Quantity
1.	Beaker	500 ml, 250 ml and 50 ml.	8
2.	Measuring Cylinder	500 ml, 250 ml, 50 ml and 10 ml.	8
3.	Conical Flask	500 ml, 250 ml and 50 ml.	8
4.	Volumetric Flask	1000ml, 500 ml, 250 ml, 50 ml and 25ml.	8
5.	Test Tube Holder		30
6.	Test Tube rack		10
7.	Pipette	10ml, 20ml	15
8	Burette	50 ml	15
9	Test Tubes	10 ml	50
10	Spirit Lamp		10
11	Glass Slides		10
12	Live Specimens	<p>Algae: Volvox, Chara, Ectocarpus, Fucus, Polysiphonia, Anabaena.</p> <p>Fungi: Phythophthora, Mucor, Penicilium, Puccinia, Agaricus, Colletotrichum.</p> <p>Bryophytes: Riccia, Marchantia, Anthoceros, Polytrichum, Sphagnum.</p> <p>Pteridophytes: Lycopodium, Selaginella, Equisetum, Adiantum, Marsilea.</p> <p>Gymnosperms: Cycas, Pinus, Cryptomeria, Gnetum, Thuja.</p>	10 each
13	Cover slips		50
14	Mortar Pestle	Large and Medium sized.	5
15	Funnel		30
16	Burette stand		10
17	Petridish		30
18	Reagent Bottle		15
19	Glass Rod		4
20	Wire Gauze		20

21	Test Tube brush		10
22	Spatula	Small, medium and Large sized.	8
23	Inoculation Loop		10
24	Inoculation Needle		10
25	Dropper		10
26	Centrifuge tubes	2 ml, 5 ml and 10 ml	1 Box each
27	Plate Spreader		3
28	Micro Pipette (1000,200,20 μ l)		1 each
29	Micro Tips (1000,200,20 μ l)		1 box each
30	Tissue Roll		100
31	Mitosis and Meiosis permanent slides		1
32	Chromatography Paper		1 Roll
33	Micro tip Box (1000,200,20 μ l)		2 Each
34	Heating Tripod stand		5
35	Filter Paper	Pore size (42 and 1)	2 each

Item Name: Botany Lab Charts & Model Organisms

Item Code- BT-03

<i>Sl no</i>	<i>Particulars</i>	<i>Qty</i>
1	<i>Plant Mitosis chart, Plant Meiosis chart</i>	<i>One Each</i>
2	<i>T.S of Monocot Root , T.S of Dicot Root</i>	<i>One Each</i>
3	<i>L.S of Dicot Stem , L.S of Monocot Stem</i>	<i>One Each</i>
4	<i>Model Organsims</i>	<i>One</i>

Item Name: **BOTANY LAB CHEMICALS**

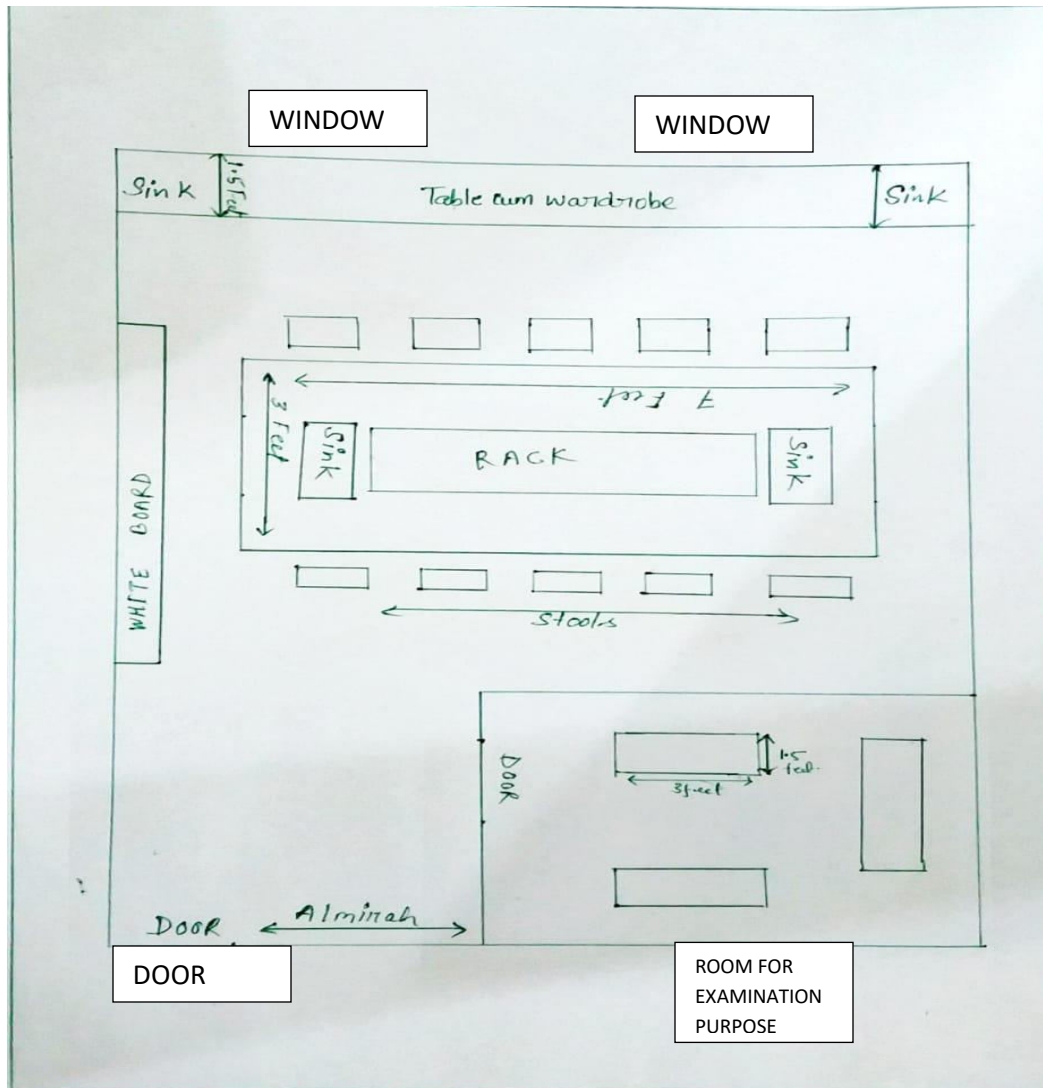
Item Code- **BT-04**

Serial no.	Chemical Name	Quantity	Company	Cat. No.
1.	Safranin	500ml x 10	Himedia	S027
2.	Absolute Alcohol	100ml x30	Himedia	MB106
3.	Fast Green FCF	10G x 10	Himedia	GRM147
4.	Xylol	2.5L x 5	Himedia	AS078
5.	DPX	500G x 10	Himedia	GRM655
6.	Canada Balsam	500G x 10	Himedia	GRM321
7.	Crystal Violet	500ML x 5	Himedia	S012
8.	Erythrosin	5G x 10	Himedia	RM369
9.	Xylene	2.5L	Himedia	AS078
10.	Haematoxylin	25G	Himedia	GRM236
11.	Bismarck Brown Y	1KG	Himedia	GRM487
12.	Acid Fuchsin	25G	Himedia	GRM1330
13.	Astra Blue	5G	Himedia	RM9267
14.	Clove Oil	500G	Himedia	GRM340
16.	Orange G	25G	Himedia	RM395
17.	Laco phenol	100ML x 5	Himedia	S015
18.	Cotton Blue	100ML x 5	Himedia	S016
19	Methylene Blue	100G X 5NO.	Himedia	GRM116
20	Sodium Chloride	1KG X 2NO.	Himedia	MB023
21	Test Tube (150 X 25)	200NO	Himedia	PW292
22	Funnel		Himedia	PW1331
23	Beaker	100ml X 30NO	Himedia	GRM8245
24	Burner	20NO.		


(Dr. Ranjan Kalita)
Principal
Rangapara College
Principal
Rangapara College

Bidder's Signature with Seal

BOTANY LABORATORY LAYOUT DESIGN



NOTE:

- Each table must have wardrobe,
- Room must have one exhaust fan. Exhaust fans can quickly cool down areas that have become too hot from practical activities.
- Stool height (2.5 foot)
- One extra chamber will be required for examination purpose.
- Two sinks and one rack for chemicals with center table will be required.
- One wooden almirah (6 foot height) with glass front will be required for specimen collection.
- Window side slab must be cemented along with wardrobe. And on both side sink should be there.


 (Dr. Ranjan Kalita)
 Principal
 Rangapara College
Principal
Rangapara College



ZOOLOGY LABORATORY (LAB-04)

Item Name: **ZOOLOGY LAB EQUIPMENTS**

Item Code- **ZL-01**

Sl. No.	Item	Company	Quantity
1.	Compound Microscope	Leica	2 Nos.
2.	Simple Microscope	elanCuriocity	1
3.	Trinocular Microscope	Labomed	1
4.	Digital Calorimeter	Unique Instrument Corporation	1
5.	Digital pH meter with Electrode	UVsar India	1
6.	Microtome Machine	Micro Measures and Instruments	1
7.	Pipette (10ml)	Borosil	5
8.	Pipette (5 ml)	Borosil	5
9.	Micro Pipette (1 ml)	Tarsons	1
10.	Micro tip (1 ml)	Tarsons	1 Packet
11.	Glass Slide		10 Packet
12.	Cover slip (Small)		10 Packet
13.	Cover slip (Big)		10 Packet
14.	Dissecting Box		2 Nos.
15.	Beaker (100ml)	Tarsons	10 Pieces
16.	Beaker (250 ml)	Tarsons	10 Pieces
17.	Measuring Cylinder (1000 ml): Plastic made	Tarsons	2 Pc
18.	Measuring Cylinder (100 ml): Plastic made	Tarsons	2 Pc
19.	Conical Flask (500 ml)	Borosil	5 Pc
20.	Conical Flask (100 ml)	Borosil	5 Pc
21.	Hemocytometer		4 Nos.
22.	Cavity Box (Glass)		10 Nos.
23.	Coplin Jar (Plastic made)	Nelofe (Pack of 6)	3 Packets
24.	Dissecting Tray (10 x 12)		10 Nos.
25.	Permanent Slides		12 Nos.
26.	Museum Specimens Bottle	Tesca	50 Nos.
27.	Ethanol (1 L)	Labogens (China)	10 Bottles
28.	Xylene (500 ml) (Histology Grade)	Merck	2 Bottles
29.	Eosin	Biopharm	3 Bottles
30.	Hematoxylin	Biopharm	3 Bottles
31.	Glycerol (500 ml)	Himedia	1 Bottle
32.	DPX (100 ml)	Sigma Aldrich	2 Bottles
33.	Spirit Lamp		5 Nos.
34.	Water bath		1 Piece
35.	Hot Plate and magnetic stirrer (9856)	Labdeal	1 Piece
36.	Formalin (5 Liter)		2 Bottles
37.	Distilled Water (5 Liter)		3 Bottles
38.	Histology Slide Box		5 Pieces
39.	D.O. Bottles	Borosil	10 Pieces
40.	Cotton		1 Bundle
41.	Blotting Paper (Big)		1 Packet

WXZ



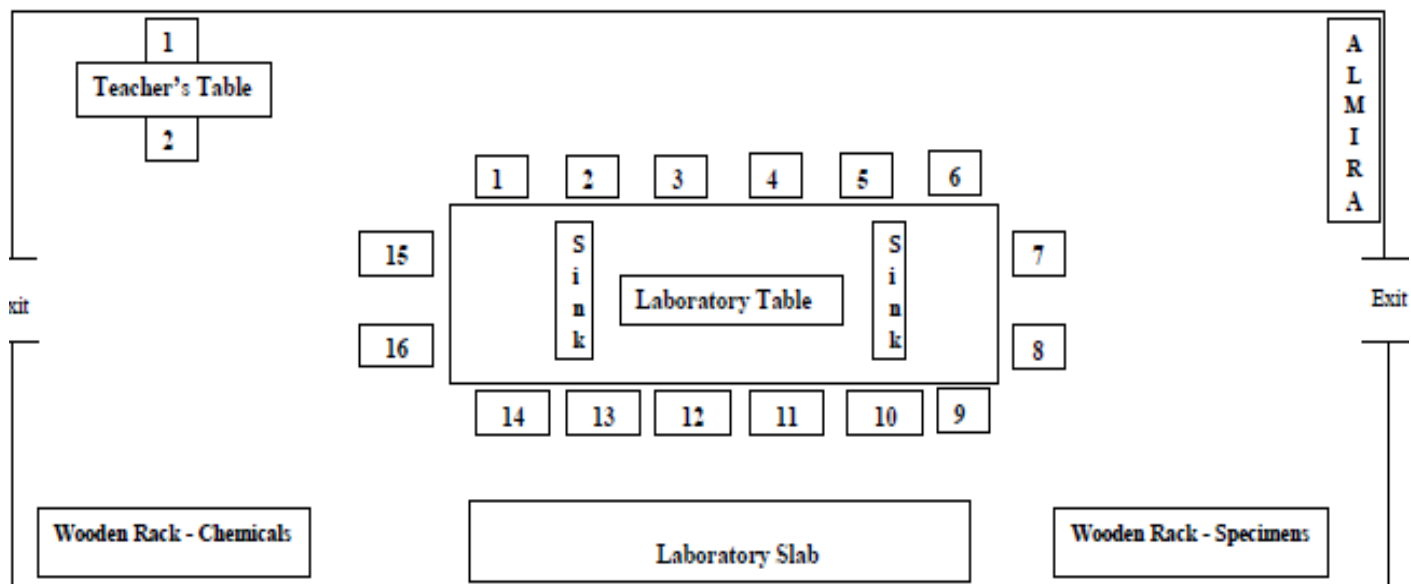
Item Name: Zoology Lab Furniture

Item Code- ZL-02

Sl. No.	Item	Size/ Quantity
1.	Laboratory Table – 1 No. With two (2) basins and four (4) water tanks	20 ft. (L)x 3.5 ft. (B) x 3 ft. (H)
2.	Laboratory Slab – 1 No.	20 ft. (L) x 2 ft. (B) x 3 ft. (H)
3.	Wooden Rack to keep chemicals (4 storied)	7 ft (L) x 6 ft. (H)
4.	Seating tool (Wooden)	15 tools
5.	Wooden Rack with Glass slider facility (4 storied) to keep specimens	7 ft (L) x 6 ft. (H)
8.	Steal Almira to keep the instruments	1 No.

Seal & Signature of the Bidder

Zoology Laboratory Layout




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