Dhemaji College, Dhemaji
Assam – 787057

Ref No. DC/Quotation/2023-24/22 Dated : 09.05.2023

Notice Inviting Quotation

Sealed quotations / tenders are invited from reputed and experienced Firms / suppliers for supplying the following laboratory equipments, chemicals, etc. for Dhemaji College, Dhemaji. The tenders should reach the Office of the Principal, Dhemaji College, Dhemaji, Assam – 787057, on or before 04:00 pm of 19th May, 2023. The selection of the items would be based on standard operating procedures / guidelines of the Tender Committee. The committee shall have all the rights to disqualify any bid based on the quality of the items provided by the supplier. The committee reserves the right to reject any or all tenders without assigning any reason thereof.

The sealed quotations must contain the following documents

1. Item, brand name, specification, price including installation (inclusive of all taxes)
2. Copy of GST account
3. Copy of PAN associated with the GST account
4. Copy of Trade License
5. Copy of Authorization letter from the company / maker
6. Previous supply order from other institutions

The interested suppliers should submit Technical and Financial bids separately.

The bids will be opened on 22.05.2023

9/5/23

Principal
Dhemaji College, Dhemaji

Dhemaji College
Dhemaji

A. Department of Botany

Sl No.	Item name and specification if any	Quantity
1	Chloroform	500 ml
2	Tryptone	500 gm
3	Yeast extract	100 gm
4	Isoamyl alcohol	500 ml
5	RNase A	25 mg
5	Isopropanol	500 ml
6	Ammonium acetate	500 gm
7	TE Buffer	100 ml
9	Sucrose	500 gm
10	Microfuge tubes	1 Pkt
11	Crystal Violet	500 ml
13	Glacial Acetic acid	500 ml
14	Fast Green	5 gm
17	Agar Powder	500 gm
18	Petrolium ether	500 ml
19	Acetone	500 ml
20	Hot air oven	1 No.
21	Permanent slide cabinet	1 No.
22	Laminar air flow hood	1 No.
23	Autoclave	1 No.
24	Shaker	1 No.
25	Power-pack for Horizontal Gel elepctrophoresis unit	1 no.
26	Spirit lamp	10 no.
27	Spirit	500 ml X 3
28	MS medium	500 gm
29	Glass bottle 500 mL	10 no.
30	Glass bottle 250 mL	10 no.
31	Petri plates (medium size)	20 no.

B1. Department of Chemistry

Sl No.	Name of item	Quantity
1	Beaker	500ml x 5 nos
2	Beaker	250ml x 5 nos
3	Beaker	100ml x 10 nos
4	Litmus Paper (Blue)	5 pkt
5	Wire Gauge	10 Nos
6	Porcelain Basin	5 Nos
7	Watch Glass	5 Nos
8	Conc H_2SO_4	500 ml x 4 Nos
9	Filter Paper	10 pkt
10	Thermometer	5 Nos
11	Burette	10 Nos
12	Test Tube Brass	10 Nos
13	Measuring Cylinder	250ml x 5 Nos

9/5/17
Principal
Dhemaji College
Dhemaji

14	Funnel	5 Nos
15	Tongue	5 Nos
16	Dropper	5 Nos
17	Glass Rod	10 Nos
18	$MgCl_2$	500g x 1 Nos
19	KBr	500g x 1 Nos
20	$(NH_4)_2SO_4$	500g x 1 Nos
21	$CuCl_2$	500g x 1 Nos
22	$AlBO_3$	500g x 1 Nos
23	$CrBO_3$	500g x 1 Nos
24	PbC_2O_4	500g x 1 Nos
25	$Al_2(SO_4)_3$	500g x 1 Nos
26	$ZnCO_3$	500g x 1 Nos
27	$FeCl_3$	500g x 1 Nos
28	$Ca_3(PO_4)_2$	500g x 1 Nos
29	Bleaching Powder	500g x 1 Nos
30	Chloroform	500 mL x 5 Nos

B2. Department of Chemistry

Sl No.	Name of item	Quantity
31	Glass Vial (5 mL)	1 Box
32	Glass Vial/Cultered Vial (25 mL)	1 Box
33	n-Hexane	500 mL x 7 Nos
34	Ethyl Acetate	500 mL x 4 Nos
35	Potassium Oxalate	500 g x 1 Nos
36	Lead Nitrate	500 g x 1 Nos
37	Copper Carbonate	250 g x 1 Nos
38	Acetic Acid	500 mL x 4 Nos
39	Sodium Acetate	500 g x 4 Nos
40	Ammonia	500 mL x 4 Nos
41	Sodium Hydroxide	500 g x 2 Nos
42	Dithioxamide	1 Nos
43	Capillary Tube	6 pkt
44	Methylene Blue	25 gm (1 Nos)
45	Rhodamine B	25 gm (1 Nos)
46	Ethanol	500 ml x 4 Nos
47	n-Butanol	500 ml * 2 Nos
48	Oxalic acid	500 g * 2 Nos
49	Benzoic acid	500 g * 1 Nos
50	Refrigerator (Double Door)	1 Nos
51	Ammonium Acetate	500 g * 2 Nos
52	Nickel ammonium sulphate	500g * 2Nos
53	Alizarin	1No
54	Nitrobenzene	500g x2
55	Acetanilide	500g x 2
56	Aniline	500g x2

Dhemaji

57	Benzoyl chloride	500gx2
58	Formalin	500gx2
59	Fehling A	500gx2
60	Fehling B	500gx2
61	Ascorbic acid	500gx2
62	Tincture of Iodine	500gx2
63	Kipp's apparatus	1 no.
65	Ferrous sulphide stick	500g x2
66	Water distillation unit (single phase, 1.5 L / hr capacity)	1 no.
67	Rubeanic acid	100 gm X 5
68	Benzidine	100 gm X 5

C. Department of Electronics

Sl. No	Apparatus / Components	Quantity
1	Switching mode adjustable DC Powe Supply (30 V, 5A)	1
2	Digital multimeter	4
3	LCR meter	1
4	DSO (50 MHz)	1
5	Maxwell's needle (Complete experimental setup for determination of modulus of rigidity of wire)	1
6	De-Sauty bridge	1
7	Soldering wire, Soldering paste	1
8	Thermistor – NTC (10D-11, 10D-9, 5D-9)	1
9	Temperature transducer (AD590)	5
10	DIAC (DB3)	10
11	TRIAC (BT136)	10
12	IGBT	10
13	UJT (2N2646)	10
14	8051 Microcontroller burner kit	1
15	IC 566	10
16	IC 8038	10

D. Department of Physics

S. No.	Name of Equipments / Experiment	Quantity
1	To study the motion of spring and calculate (a) spring constant (b) g and (c) modulus of rigidity	1 Set
2	To determine the moment of inertia of a flywheel	1 Set
3	To determine g and velocity of freely falling body using digital timing technique	1 Set
4	To study the characteristics of RC circuit	1 Set
5	To study the response curve of series LCR circuit and determine its (a) resonant frequency (b) impedance at resonance (c) quality factor (d) band width	1 Set
6	To study the response of parallel LCR circuit	1 Set
7	To determine unknown low frequency by Carey Foster bridge	1 set
8	To determine the co-efficient of thermal conductivity of Cu by Angstrom's method	1 Set

9/5/23 Principal Dhemaji College Dhemaji

9	To study the variation of thermo-emf of a thermocouple with difference of temperature of its two junctions.	1 Set
10	To calibrate a thermocouple to measure temperature in a specified range using (i) Null method (ii) Direct measurement using Op-amp difference amplifier and to determine Neutral temperature.	1 Set
11	To design a monostable multivibrator of given specifications using 555 Timer.	1 Set
12	Photo-electric effect: photo current versus intensity and wavelength of light; maximum energy of photo-electrons versus frequency of light.	1 Set
13	To determine work function of material of filament of directly heated vacuum diode.	1 Set
14	To determine the wavelength of H-alpha emission line of Hydrogen atom.	1 Set
15	To determine the ionization potential of mercury.	1 Set
16	To determine the absorption lines in the rotational spectrum of Iodine vapour.	1 Set
17	To determine the value of e/m by (a) Magnetic focusing or (b) Bar magnet.	1 Set
18	To setup the Millikan oil drop apparatus and determine the charge of an electron.	1 Set
19	To show the tunneling effect in tunnel diode using I-V characteristics.	1 Set
20	To determine the wavelength of laser source using diffraction of single slit.	1 Set
21	To determine the wavelength of laser source using diffraction of double slits.	1 Set
22	To determine (1) wavelength and (2) angular spread of He-Ne laser using plane diffraction grating.	1 Set
23	To study the V-I characteristics of a Zener diode and its use as voltage regulator.	1 Set
24	To study the various biasing configurations of BJT for normal class A operation.	1 Set
25	To design a CE transistor amplifier of a given gain (mid-gain) using voltage divider bias.	1 Set
26	To study the frequency response of voltage gain of a RC-coupled transistor amplifier.	1 Set
27	To design a Wien bridge oscillator for given frequency using an op-amp.	1 Set
28	To design a phase shift oscillator of given specifications using BJT.	1 Set
29	To study the Colpitt`s oscillator.	1 Set
30	To design a digital to analog converter (DAC) of given specifications.	1 Set
31	To design an inverting amplifier using Op-amp (741,351) for dc voltage of given gain	1 Set
32	To design inverting amplifier using Op-amp (741,351) and study its frequency response	1 Set
33	To design non-inverting amplifier using Op-amp (741,351) & study its frequency response	1 Set
34	To study the zero-crossing detector and comparator	1 Set
35	To add two dc voltages using Op-amp in inverting and non-inverting mode	1 Set
36	To design a precision Differential amplifier of given I/O specification	1 Set

9/5/23 Principal Dhemaji College Dhemaji

	using Op-amp.	
37	To investigate the use of an op-amp as an Integrator.	1 Set
38	To investigate the use of an op-amp as a Differentiator.	1 Set
39	To design a circuit to simulate the solution of a 1st/2nd order differential equation.	1 Set
40	To investigate the motion of coupled oscillators	1 Set
41	To study Lissajous Figures	1 Set
42	Familiarization with Schuster`s focussing; determination of angle of prism.	1 Set
43	To determine the Coefficient of Viscosity of water by Capillary Flow Method (Poiseuille's method).	1 Set
44	To measure the intensity using photosensor and laser in diffraction patterns of single and double slits.	1 Set
45	To measure the Magnetic susceptibility of Solids.	1 Set
46	To determine the Coupling Coefficient of a Piezoelectric crystal.	1 Set
47	To measure the Dielectric Constant of a dielectric Materials with frequency	1 Set
48	To determine the complex dielectric constant and plasma frequency of metal using Surface Plasmon resonance (SPR)	1 Set
49	To determine the refractive index of a dielectric layer using SPR	1 Set
50	To study the PE Hysteresis loop of a Ferroelectric Crystal.	1 Set
51	To determine the Hall coefficient of a semiconductor sample.	1 Set
52	Measurement of susceptibility of paramagnetic solution (Quinck`s Tube Method)	1 Set
53	To design a power supply using bridge rectifier and study effect of C-filter.	1 Set
54	To study the characteristics of a UJT and design a simple Relaxation Oscillator	1 Set
55	To design an Amplitude Modulator using Transistor.	1 Set
56	To design PWM, PPM, PAM and Pulse code modulation using ICs.	1 Set
57	To design an Astable multivibrator of given specifications using transistor.	1 Set
58	To study a PLL IC (Lock and capture range).	1 Set
59	To study envelope detector for demodulation of AM signal.	1 Set
60	Study of ASK and FSK modulator.	1 Set
61	Design the 1st order active low pass and high pass filters of given cutoff frequency	1 Set
62	Design a Wein`s Bridge oscillator of given frequency.	1 Set
63	To verify the law of Malus for plane polarized light.	1 Set
64	To analyze elliptically polarized Light by using a Babinet's compensator.	1 Set
65	To study dependence of radiation on angle for a simple Dipole antenna.	1 Set
66	To determine the wavelength and velocity of ultrasonic waves in a liquid (Kerosene Oil, Xylene, etc.) by studying the diffraction through ultrasonic grating.	1 Set
67	To study the reflection, refraction of microwaves	1 Set
68	To study Polarization and double slit interference in microwaves.	1 Set
69	To determine the refractive index of liquid by total internal reflection using Wollaston's air-film.	1 Set
70	To study the polarization of light by reflection and determine the	1 Set

9/5/25
Principal
Dhemaji College
Dhemaji

	polarizing angle for air-glass interface	
71	Determine output characteristics of a LVDT & measure displacement using LVDT	1 Set
72	To study the characteristics of a Thermostat and determine its parameters	1 Set
73	Calibrate Semiconductor type temperature sensor	1 Set
74	To measure the change in temperature of ambient using Resistance Temperature Device (RTD).	1 Set
75	Create vacuum in a small chamber using a mechanical (rotary) pump and measure the chamber pressure using a pressure gauge.	1 Set
76	To plot the frequency response of a microphone.	1 Set
77	To measure Q of a coil and influence of frequency, using a Q-meter.	1 Set

E. Department of Zoology

Sl. No.	Category	Particulars	Quantity
1	Cytological slides	**Mitosis stages (Onion root or others)** Prophase Metaphase Anaphase Telophase	1 slide each
		Meiosis slides (Grasshopper or others) Leptotene Zygotene Pachytene Diplotene Diakinesis Metaphase – I Anaphase – I Telophase – I Prophase – II Metaphase – II Anaphase – II Telophase – II	1 slide each
2	Histological slide	Thymus	1 no.
		Spleen	1 no.
		Lymph node	1 no.
		Barr body (Human female)	1 No.
3	Models	**Mammalian skull of:** Herbivore Carnivore	1 each
		Archaeopteryx	
		Autralopithecus afarensis	
		Ball-and-stick model of DNA	
		Platypus	
4	Instruments	Turbidity meter	1 no.
		Compound microscope for general use	1 no.
5	Chemicals	Ethanol	500 ml X 5
		Paraffin wax	500 g X 10

9/5/23
Principal
Dhemaji College
Dhemaji

		Litmus paper	20 pkts
		Agarose	500 gm X 2
		Spirit	500 mL X 4
6	**Glasswares**	Measuring Glass cylinder 200 ml	2
		Measuring Glass cylinder 50 ml	2
		Measuring Glass cylinder 100 ml	2
		Beaker 500 ml	5
		Beaker 100 ml	5
		Beaker 50 ml	5
		Glass pipette 10 ml	5
		Glass pipette 1 ml	5
		Glass pipette 5 ml	5
		Glass Slides	20 pkt
		Chromatography chamber	2 nos.
		BOD Bottle	4 nos.
7	**Plasticwares, etc**	Lab. Rat / mice cage with grill & water bottle	10 nos.
		Colour balls (4 colour)	20 nos. each X 4 types
		Microtips of micropipette (100 micro Litre)	5 pkt
		Microtips of micropipette (500 micro Litre)	5 pkt
		Brush for cleaning test tubes	5 nos.
		Test-tube holder	10 nos.
		Burner (Spirit lamp)	10 nos.
8	**Assay Kits**	SGOT	1 no.
		SGPT	1 no.
		Alkaline phosphatase	1 no.
		Acid Phosphatase	1 no.
		Protein estimation (Lowry's method)	1 no.
		GSH	1 No.
		Lipase	1 No.
		Trypsin	1 No.
9	**Others**	Rack for museum specimen	1 No.

9/5/17

Principal
Dhemaji College
Dhemaji