

Physics Department

Lab $S_8 \rightarrow 35 \times 24$ feet

Lab $S_7 \rightarrow 36 \times 24$ feet

Dark Room I $\rightarrow 24.6 \times 10$ feet

Dark Room $S_2 \rightarrow 12 \times 24$ feet

Store room Lab $S_4 \rightarrow 10 \times 12$ feet

No. of Equipments of Bsc $\rightarrow 388$

No. of Equipments of Msc $\rightarrow 40 + 13 = 53$

B.Sc

(2021 - 2022) Physics Department Lab Equipment List		
Sr. no	Torsion Items	Qty
1	Torsion Pendulum	8
2	Measuring Tape 15 mbr.	2
3	Step down Transformer for sonometer	4
4	Bending of Beam app.	2
5	Searls rigidity app with stand	2
6	Viscosity by capillary method	4
7	Photo-Voltic cell app (Photo voltaic)	4
8	Prism assembly complete set	5
9	Micro meter Screw guage	12
10	Reading Telescope with stand	10
11	Weighing Balance(Top pan) (weighing)	1
12	Needle stand	15
13	Knife edge for Bar Pendulum	7
14	Travelling microscope	7
15	Sextant with stand	6
16	Polarimeter, half shade	2
17	Newton Ring app.	4
18	Spirit level	5
19	Photo meter	2
20	Transformer for sodium lamp,	2
21	Hall effect complete set	2
22	e/m by thomsen method	4
23	Four probe method app.	3
24	Laser diode.5mm	2
25	Grating Holder for laser	2
26	Diode characteristics	3
27	Semi conductor	5
28	L.C.R Impedance of A.C circuit	2
29	High Resistance by substitution method	2
30	Transistor characteristic C.B	6
31	Study of L.C.R series & parallel	1
32	Voltage double & Tripler circuit	4
33	R.C Coupled amplifier	4
34	Study of Hartley oscillator	6
35	Battery eliminator	5
36	Transformer	3
37	Ammeter(DC) (0-100ma)(0-100ma)	2
38	Spectrometer	10
39	Ultrasonic wave by grang for spectrometer	1
40	Common base Amplifier	3
41	Common Emitter Amplifier	3
42	Bi-Prism only (50x40mm)	
43	Wire mount for diffraction purpose	3
44	Vernier calliper	3
45	Screw guage	7
46	Spherometer	9

47	Half meter rods	3
48	Weight Box (100gm)	3
49	Convex lens	7
50	Plumb lines Brass	2
51	meter Rods(Scale)	6
52	Slotted weight brass	6
53	Resistance Box, 5000 r	7
54	G. clamps	12
55	Slotted weight 1/2 kg	8
56	Magnet 1/3	6
57	one way key	10
58	Rising table (Surface tension)	3
59	Table Balance	1
60	DC. Galvanometer (30-0-30)	10
61	Iron stand	14
62	Sonometer thick wood, with stand wire	4
63	Sextant stand	1
64	Maxwell needles	5
65	optical bench double brass pipe	4
66	Resistance box 1 to 100r	3
67	Fly wheel	4
68	Nodal slide Assembly without Optical bench	2
69	Melde's app. Set	3
70	Dc ammeter 100mm.50ma	1
71	Series and Parallel resonance Circuits	2
72	L.B photo metre	6
73	Solar cell	7
74	Corona ring app.	2
75	Micro ammeter dc(0-200 ua, 200nm)	1
76	Voltmetre DC (0-30v) Ac vo-20 (0-10v)	2
77	C.R.O connections	1
78	Ultra sonic diffraction Spectrometer per velocity	2
79	B/H curve app.	3
80	Laptop	1
81	Ceramic steel writing cum Projection Board with stand	1
82	PNBU board lite software	1
83	Visualizer	1
84	Thermometer 110x1C	2
85	Jagger's app.	6
86	White Plate with slits dream	1
87	Eye piece	10
88	Mercury lamp.	4
89	Sodium lamp.	3
90	Zener diode	1
91	Transistor with CE configuration	1
92	Computer set	5

M.Sc Physics

Ss. NO.	Apparatus	Quantity
1.	The Comparative study Amplifier (CE, CB, CC)	4
2.	Study of H-Parameter	3
3.	Cauchy Constant (Prism, Spectrometer, Lamp)	1
4.	Planck's Constant (LED)	2
5.	C.R.O	1
6.	Mechanical Tool Kit	2
7.	Electrical Tool Kit	2
8.	Flashing and Quenching Voltage and Capacitance	3
9.	Regulated Power supply	2
10.	Drain characteristics of a given MOSFET	4
11.	Networks Theorem	4
12.	characteristics of FET	2
13.	characteristics of P-N Junction and Eg of SiC	1
14.	He-Ne Laser Light (Scale, Grating)	1
15.	Op-Amp Trainer	1
16.	Characteristics of Solar Cell	1
17.	Astable, Monostable and Bistable Multivibrator Trainer Kit using IC-555	1
18.	Stefan's Constant by black Copper Radiation Plates (Electrical Method)	1
19.	Frequency Response of Low Pass, high pass & Band Pass Filter	1
20.	Schmitt trigger using operational Amplifier	1
21.	e/m by Helical method	1
22.	Frank Hertz Experiment	1

List of Experiments

M.Sc. Second Year (each one)

1. To determine the Landé's factor of DPHH using an ESR spectrometer.
2. To determine the heat capacity of solids
3. To determine the Magnetic susceptibility by Guo's method.
4. Measurement of Hall Coefficient of a given semiconductor: Identification of type of semiconductor and estimation of charge carrier.
5. To verify Faraday Law using He-Ne Laser
6. To determine the dielectric constant of different solid samples
7. Design and construct logic gates (NOT, AND, OR, NAND, NOR, EX-OR, EX-NOR) and verify their truth tables.
8. Realization of logic gates using only NAND/NOR gates.
9. Construct half and full adder and verify their truth tables.
10. Construct half and full subtractors and verify their truth tables.
11. To study digital-to-analog and analog-to-digital conversion circuits.
12. Optical fiber communication:
 - (a) Study of losses in optical fiber.
 - (b) Measurement of propagation loss.
 - (c) Measurement of numerical aperture.
 - (d) Measurement of bending loss.
13. To study the different types of Flip-Flops.