



PHYSICS

(INTER PART-II)

PRACTICAL

Time : 3.00 Hours

PAPER : 4

Marks : 30

NOTE (i) The candidate will mark two experiments from Section-I and two from Section-II

(ii) The Examiner will allot ONE experiment out of marked experiments to perform experiment from each Section.

SECTION-I

- 1. Find the value of "g" by oscillating mass spring system. 10
- 2. Find moment of inertia of fly wheel. 10
- 3. Find focal length of convex lens by displacement method. 10

SECTION-II

- 4. Find resistance of galvanometer by half deflection method. 10
- 5. Find resistance of a given voltmeter. 10
- 6. Determine emf of a cell by using a potentiometer. 10

SECTION-III

7. (i) Draw one graph by given data as allotted by examiner. 05

1/p (cm ⁻¹)	0	0.02	0.06	0.08	0.10
1/q (cm ⁻¹)	0.10	0.086	0.06	0.02	0

(ii)

F(N)	20	40	60	80	100	120
X(cm)	2	4	6	8	10.2	12.1

8. Practical Notebook + Viva Voce.

2+3

NOTE: (i) The candidate will mark two experiments from Section-I and two from Section-II

(iii) The Examiner will allot ONE experiment out of marked experiments to perform experiment from each Section.

SECTION-I

1. Verify second condition of equilibrium by suspended meter rod. 10
2. Find value of "g" by free fall method using electronic timer. 10
3. Find area of cross section of a wire by screw gauge. 10

SECTION-II

4. Find resistance of galvanometer by half deflection method. 10
5. Find resistance of a given voltmeter. 10
6. Study the reverse and forward characteristics of diode. 10

SECTION-III

7. (i) Draw one graph by given data as allotted by examiner.

05

\sqrt{L} ($cm^{1/2}$)	6	7	8	9	10
T(s)	1.2	1.4	1.6	1.8	2.0

(ii)

C(μ F)	0.2	0.4	0.6	0.8	1.0
I (mA)	4	8	12	16	20

8. Practical Notebook + Viva Voce.

2+3

NOTE (i) The candidate will mark two experiments from Section-I and two from Section-II

(iv) The Examiner will allot ONE experiment out of marked experiments to perform experiment from each Section.

SECTION-I

1. Verify the second condition of equilibrium using suspended meter rod. 10
2. Find refractive index of a glass prism by critical angle method. 10
3. Prove that time period of a simple pendulum is independent of its mass. 10

SECTION-II

4. Find resistance of given wire by slide wire bridge. 10
5. Set up a burglar alarm using NAND gate. 10
6. Find the relation between current and capacitance when different capacitors are used in an AC circuit. 10

SECTION-III

7. (i) Draw one graph by given data as allotted by examiner.

05

$\frac{1}{d^2} (cm^{-2})$	45×10^{-5}	50×10^{-5}	55×10^{-5}	60×10^{-5}	65×10^{-5}
I (mA)	4×10^{-6}	6×10^{-6}	8×10^{-6}	10×10^{-6}	12×10^{-6}

(ii)

V(volt)	0	1	2	3	4	5
I (mA)	4	8	12	16	20	0.81

8. Practical Notebook + Viva Voce.

2+3

NOTE (i) The candidate will mark two experiments from Section-I and two from Section-II

(ii) The Examiner will allot ONE experiment out of marked experiments to perform experiment from each Section.

SECTION-I

1. Find the area of cross section of wire by screw gauge. 10
2. Find moment of inertia of a fly wheel. 10
3. Find speed of sound at room temperature with end correction using resonance tube. 10

SECTION-II

4. Find resistance of galvanometer by half deflection method. 10
5. Verify truth table for "OR" and NOR gate. 10
6. Determine high resistance by Neon flash lamp. 10

SECTION-III

7. (i) Draw one graph by given data as allocated by examiner.

05

$V(ms^{-1})$	5.73	5.78	5.83	5.88	5.92
t(s)	0.6	0.7	0.8	0.	1.0

(ii)

m(gm)	50	100	150	200	250
T(s)	1.80	2.00	2.21	2.40	2.61

8. Practical Notebook + Viva Voce.

2+3