

PRACTICAL MODEL PAPER

(INTERMEDIATE)

PHYSICS

(Practical)

Time Allowed : 3:00 hours

Maximum Marks : 30

Note : The candidate will mark TWO experiments from Section – I and II separately. The Practical Examiner will allot one experiment out of the marked ones to perform one experiment from each Section-I and Section-II respectively.

SECTION – I

1. Determine the area of cross section of a wire and volume of a small sphere using micrometer screw gauge. 10
2. Find the coefficient of linear expansion of the material of a rod by Pullinger's apparatus. 10
3. Evaluate the refractive index of a liquid using a concave mirror. 10

SECTION – II

4. Determine the resistance of a galvanometer by half deflection method and calculate the electric current for full scale. 10
5. Justify the characteristics of an NPN transistor. 10
6. How would you convert a galvanometer into a voltmeter range (0-3) V? 10

SECTION – III

Note : The candidate is to attempt only ONE question from this Section.

7. Draw a graph from the data provided below. Determine the value of the reciprocal of 5.4 from the graph. Take ' W ' along x-axis : 3+1=4

W (Unit)	0	1	2	3	4	5	6	7	8	9	10
$\frac{1}{W} (Unit^{-1})$	∞	1	0.5	0.33	0.25	0.20	0.17	0.14	0.12	0.11	0.1

8. Plot a graph of the following recorded data between ν and ν_0 taking ' ν ' along x-axis. Determine Planck's Constant h by formula $h = m \times e$ where m is slope of the graph and $e = 1.60 \times 10^{-19} c$, i.e., electronic charge : 3+1=4

$\nu (\times 10^{14} Hz)$	4.80	5.10	5.70	6.40	7.00
$\nu_0 (volt)$	1.56	1.68	1.91	2.19	2.42

SECTION – IV

9. Practical Note Book/ Lab. Journal. 3
10. Viva Voce (Oral / Verbal Activity) 3