

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai — 600 044.

B.Sc.(Chemistry) END SEMESTER EXAMINATIONS NOVEMBER -2023

SEMESTER - III

20UCHAT3003 - Allied Physics - I

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Briefly explain about methods to obtain Lissajous figure and uses.
2. Describe the experiment to determine Young's Modulus by non-uniform bending.
3. Determine the surface tension and inter-facial surface tension by Drop weight method.
4. Describe about production and applications of ultrasonic wave.
5. Explain about magnetic field due to a current carrying conductor.
6. Discuss about Bending of Beams and obtain an Expression for the Bending Moment.
7. Derive a derivation of Poiseuille's formula.
8. Examine the postulates of Kinetic theory of gases.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Explain about Simple Harmonic Motion and Composition of two Simple harmonic motions in a straight line.
10. Predict the Experiment to determine rigidity modulus by Torsional Pendulum.
11. Solve the pressure difference across Liquid Surface and Excess of Pressure inside a drop and bubble.
12. Predict the magnetostriction method and their properties - Application to science, industry and medicine.
13. Justify the Biot-Savart's law with Magnetic induction at a point on the axis of a circular coil.
