

Modern Physics Lab

List of experiments

Semester: I
Subject: Physics

Code:
Credits: L-T-P: 0-0-2

Experiment 1 [Basic measurements, error analysis and curve fitting]

Objective of experiment: To learn about various types of basic measurement tools and devices, error propagation and curve fitting using least squares method.

Experiment 2 [Photoelectric effect]

Objective of experiment: To determine the value of Plank's constant by measuring the stopping potential of different color filters.

Experiment 3 [I-H curve]

Objective of experiment: To plot I-H curve for an iron rod.

Experiment 4 [Newton rings]

Objective of experiment: To determine the wavelength of sodium light by Newton's ring.

Experiment 5 [Diffraction grating]

Objective of experiment: To determine the wavelength of any three lines of mercury light by diffraction grating in 1st order spectrum.

Experiment 6 [Specific rotation by Polarimeter]

Objective of experiment: To determine the specific rotation of glucose by Polarimeter using three different concentrations.

Experiment 7 [Four Probe experiment]

Objective of experiment: To determine the energy band gap of Germanium crystal by Four Probe Method.

Experiment 8 [Hall Effect]

Objective of experiment: To determine the Hall coefficient of a given sample.

Experiment 9 [Dielectric constant]

Objective of experiment: To determine the dielectric constant of a given solid.