Course Code	Course Name	Credits
26PH154	ELECTRICITY AND MAGNETISM LAB	02

Objective

The objective of this laboratory course is to enable students to understand and verify fundamental principles of electricity and magnetism through experimental methods. Students will develop practical skills in conducting experiments, taking accurate measurements, analyzing data, and interpreting results.

1. Conversion of Galvanometer into Ammeter and Galvanometer into Voltmeter.
2. Determine the magnetic susceptibility of solid using Gouy's method (Hall effect)
3. Study the growth and decay of current in LR circuit.
4. Calibration of low range and high range voltmeter using potentiometer
5. Calibration of ammeter using potentiometer
6. Measurement of low resistances using potentiometer
7. Determination of field along the axis of a current carrying circular coil.
8. Determination of earth's magnetic field using field along axis of current carrying coil.
9. Determination of specific resistance of the material of the wire using PO box.
10. Determination of resistance and specific resistance using Carey Foster's bridge.
11. Determination of internal resistance of a cell using potentiometer.
12. Determination of e.m.f of thermo couple using potentiometer
13. Determination of capacitance using De-Sauty's bridge and B.G./Spot galvanometer/head phone.
14. Determination of figure of merit of BG or spot galvanometer.
15. Comparison of EMF of two cells using BG.
16. Comparison of capacitance using BG.
17. B.G – Figure of Merit – Charge Sensitivity
18. Comparison of magnetic moments
19. Absolute determination of M and H
20. Magnetic Hysteresis curve experiment

Students are required to perform and record at least eight experiments in the laboratory manual as part of the course requirements.