UNIVERSITY OF MADRAS

B.Sc. DEGREE PROGRAMME IN PHYSICS

SYLLABUS WITH EFFECT FROM 2023-2024

337C51

COURSE	**FIFTH SEMESTER – CORE COURSE PRACTICALS –V**
COURSETITLE	**GENERAL EXPERIMENTS**
CREDITS	**3**
COURSE OBJECTIVES	Demonstrate various optical phenomena principles, working, apply with various materials and interpret the results.

(Any TEN Experiments)

1. Diffraction at a wire and straight edge
2. Specific rotation of a sugar solution
3. Brewster's law- p0larization
4. Biprism – determination of refractive index
5. Dispersive power of plane diffraction grating.
6. Y- by Corlus Method
7. e/m Thomson Method.
8. Kundt's tube – Velocity of sound, Adiabatic Young's modulus of the material of the rod.
9. Forbe's method – Thermal conductivity of a metal rod.
10. Spectrometer– Grating - Normal incidence - Wave length of Mercury spectral lines.
11. Spectrometer – Grating - Minimum deviation - Wave length of Mercury spectral lines.
12. Spectrometer – (i-d) curve.
13. Spectrometer – (i-i′) curve.
14. Spectrometer – Narrow angled prism.
15. Rydberg's constant
16. Spectral response of photo conductor (LDR).
17. Potentiometer –Resistance and Specific resistance of the coil.
18. Potentiometer – E.M.F of a thermocouple.
19. Carey Foster's bridge - Temperature coefficient of resistance of the coil.
20. Deflection Magnetometer – Determination of Magnetic moment of a bar magnet and BHusing circular coil carrying current.
21. Vibration magnetometer - Determination of BH using circular coil carrying current– Tan B position.
22. B.G – Figure of Merit – Charge Sensitivity