

UNIVERSITY OF MADRAS
B.Sc. DEGREE COURSE IN PHYSICS
SYLLABUS WITH EFFECT FROM 2020-2021

BPS-CSC11

CORE-XI: CORE PRACTICAL – III (General)
(Common to B.Sc.Physics with Computer Applications)
(At the end of Sixth Semester - Any Fifteen Experiments)

Credits:4

1. Young's modulus of the material of the beam- Non uniform Bending - Koenig's method.
2. Young's modulus of the material of the beam- Uniform Bending - Koenig's method.
3. Newton's rings - R_1 , R_2 and μ of convex lens.
4. Spectrometer - $(i - i')$ curve - Refractive Index.
5. Spectrometer - Small angled prism - Normal incidence and emergence. Determination of the refractive index of the material of prism.
6. Spectrometer – Dispersive power of a prism.
7. Spectrometer – Dispersive power of a grating.
8. Spectrometer - Cauchy's constant.
9. Bifilar pendulum – Parallel threads – verification of two theorems.
10. Field along the axis of a circular coil - Deflection magnetometer - B_H and M .
11. Field along the axis of a circular coil - vibration magnetic needle - B_H .
12. Potentiometer - Calibration of high range voltmeter.
13. Potentiometer – conversion of galvanometer into voltmeter.
14. Potentiometer – conversion of galvanometer into ammeter.
15. Ballistic Galvanometer - Absolute capacitance of a capacitor.
16. Ballistic Galvanometer-Charge Sensitivity
17. Ballistic Galvanometer- Comparison of Mutual inductances.
18. Ballistic Galvanometer.-Comparison of Capacities
19. Determination of wavelength He-Ne Laser by diffraction.
20. Spectrometer Grating-Normal incidence method -Wavelength of Mercury Spectrum