

APPLIED PHYSICS LAB – I

Paper Code: ETPH-151

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LIST OF EXPERIMENTS

1. To determine the wavelength of sodium light by Newton's Rings.
2. To determine the wavelength of sodium light by Fresnel's biprism.
3. To determine the wavelength of sodium light using diffraction grating.
4. To determine the refractive index of a prism using spectrometer.
5. To determine the dispersive power of prism using spectrometer and mercury source.
6. To determine the specific rotation of cane sugar solution with the help of half shade polarimeter.
7. To find the wavelength of He-Ne laser using transmission diffraction grating.
8. To determine the numeral aperture (NA) of an optical fibre.
9. To plot a graph between the distance of the knife-edge from the center of the gravity and the time period of bar pendulum. From the graph, find
 - (a) The acceleration due to gravity
 - (b) The radius of gyration and the moment of inertia of the bar about an axis.
10. To determine the velocity of ultrasound waves using an ultrasonic spectrometer in a given liquid (Kerosene Oil).
 11. To verify inverse square law.
 12. To determine Planck's constant.

Text Books:

[T1] C. L. Arora 'B. Sc. Practical Physics' S. Chand

Note: Any 8-10 experiments out of the list may be chosen. Proper error – analysis must be carried out with all the experiments.