

## PHYSICS SESSIONAL

### COURSE NO: Phy 102

Department of MME

(LEVEL-1, TERM-1)

- 1-W<sub>2</sub>** Determination of the frequency of a tuning fork by Melde's apparatus.
- 2-W<sub>3</sub>** Determination of the spring constant and the effective mass of a loaded spring.
- 3-E<sub>3</sub>** To verify Biot-Savart law and Tangent law.
- 4-E<sub>5</sub>** Determination of the temperature coefficient of the resistance of the material of a wire.
- 5-O<sub>1</sub>** Determination of the focal length of (i) a convex lens by the displacement method and (ii) a concave lens by the auxiliary lens method.
- 6-O<sub>2</sub>** Determination of the refractive index of a liquid by plane mirror and pin method using a convex lens.
- 7-M<sub>1</sub>** Determination of the threshold frequency for the material of a photo-cathode and hence find the value of the Planck's constant.
- 8-M<sub>2</sub>** Determination of the linear absorption coefficient and mass absorption coefficient of Aluminum using a <sup>137</sup>Cs radioactive source and verification of the inverse square law of gamma radiation.
- 9-G<sub>1</sub>** Determination of the surface tension of water by capillary tube method.
- 10-W<sub>4</sub>** Determination of the acceleration due to gravity 'g' by means of a compound pendulum.
- 11-O<sub>4</sub>** Determination of the radius of curvature of a Plano-convex lens by the Newton's ring method.
- 12-O<sub>5</sub>** Determination of the specific rotation of sugar solution by a polarimeter.
- 13-H<sub>5</sub>** To plot the thermo-electromotive force vs. temperature (Calibration) curve for a given thermocouple.
- 14-H<sub>6</sub>** Determination of the melting point of a solid using the calibration curve obtained in experiment H<sub>5</sub>.