PHYSICS SESSIONAL

Course No.: Phy 102

Department of ME, NAME & IPE (LEVEL-1, TERM-2)

1-W_1 Determination of line frequency by Lissajous figures using an oscilloscope and a function generator and verification of the calibration of time/div knob at a particular position for different frequencies

2-W_3 Determination of the spring constant and the effective mass of a loaded spring

3-E_3 Verification of Biot-Savart law and Tangent law

4-E_5 Determination of the temperature coefficient of the resistance of the material of a wire

5-O_3 Determination of the refractive index of the material of a prism with the help of a spectrometer

6-O_4 Determination of the radius of curvature of a Plano-convex lens by the Newton's ring method

7-M_1 Determination of the threshold frequency for the material of a photo-cathode and hence find the value of the Planck's constant

8-M_2 Determination of the linear absorption coefficient and mass absorption coefficient of Aluminum using a ^{137}Cs radioactive source

9-G_2 Determination of the moment of inertia of a fly-wheel about its axis of rotation

10-G_3 Determination of the rigidity modulus of the material of a wire by the static method

11-E_6 Determination of dielectric constant of materials using a parallel plate capacitor

12-O_5 Determination of the specific rotation of sugar solution by a polarimeter

13-VL-M_3 Determination of lattice constant of NaCl crystal using an X-ray diffraction simulator

14-H_5 Calibration of a given thermocouple

15-H_6 Determination of the melting point of a solid using the calibration curve obtained in experiment H_5

16- W_2 Determination of the frequency of a tuning fork by Melde's apparatus

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