**COURSE CODE : PH1C04**

**COURSE TITLE** : **APPLIED PHYSICS LABORATORY II**

**UNIVERSITY : DIBRUGARH UNIVERSITY**

**SEMESTER : SECOND SEMESTER**

**L:T:P : 0:0:2**

**CREDIT : 01**

**End sem. Examination for this course will carry 50 marks**

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| Experiments | List of experiments |
| 1 | Study of series and parallel resonance circuits with identification of the resonant frequency. |
| 2 | Determination of the Young’s modulus of the material of a beam by bending. |
| 3 | Determination of the co-efficient of viscosity of a liquid by its flow through a capillary tube. |
| 4 | Determination of specific heat of a liquid by the method of Newton’s law of cooling. |
| 5 | Drawing of I-D curve for a ray of light passing through a prism with the help of a spectrometer and determination of the refractive index of the material of the prism. |
| 6 | Determination of the acceleration due to gravity by Kater’s pendulum. |
| 7 | Determination of frequency of a source of sound (a tuning fork) by means of a sonometer. |
| 8 | Study of the variation of thermo e.m.f with temperature for a given thermocouple and determination of (a) the neutral temperature (b) melting point of a substance. |
| 9 | Study of the variation of magnetic field with distance along the axis of a circular current carrying coil. |
| 10 | Determination of the band gap of a material. |
| 11 | Study of the characteristics of a PN junction diode. |
| 12 | Study of transistor characteristics. |
| 13 | Determination of Planck’s constant using photocell. |
| 14 | Hall Effect and determination of Hall coefficient. |
| 15 | Determination of dielectric constant |
| 16 | Moment of inertia studies. |