**COURSE CODE : PH1C02**

**COURSE TITLE** : **APPLIED PHYSICS LABORATORY I**

**UNIVERSITY : DIBRUGARH UNIVERSITY**

**SEMESTER : FIRST SEMESTER**

**CREDIT : 01**

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

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

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| Experiments | List of experiments |
| 1 | Determination of the resistance of a galvanometer by Thompson’s method. |
| 2 | Determination of the value of H (Earth’s horizontal intensity) in the laboratory by using deflection and vibration magnetometers. |
| 3 | Determination of the value of J (Mechanical equivalent of heat) with a Joule’s calorimeter. |
| 4 | Determination of the value of a given low resistance by potential difference method using a potentiometer. |
| 5 | Determination of the Young’s modulus of the material of a wire by Searle’s apparatus. |
| 6 | Finding the wavelength of a source of light by Newton’s ring method. |
| 7 | Study of charging and discharging of a capacitor and determination of time constant. |
| 8 | Determination of the magnifying power of a telescope. |
| 9 | Study of rotational motion of a flywheel. |
| 10 | Study of ultrasound properties. |
| 11 | Inverse square law studies for light using photo diode as detector. |
| 12 | Optical experiments with diffraction grating. |
| 13 | Study of transverse nature of light based on polarization phenomenon. |
| 14 | Thermal conductivity studies. |