# Dr. C. V. Raman University

## Kargi Road Bilaspur (C.G.)

### DEPARTMENT OF PHYSICS

### LIST OF EXPERIMENT (B.SC.)

**SEM.- I (PHYSICS)**

1. Study of a Kater's pendulum.
2. Study of damping of a bar pendulum under various mechanics.
3. Study of bending of beam.
4. Study of torsion of a wire (static and dynamic methods).
5. To determine the moment of inertia of a flywheel about its own axis of rotation.
6. To determine the frequency of A.C. Main by using Melde's Experiment.
7. To determine the surface tension of given liquid by using capillary rise method.
8. Determination of modulus rigidity of a given wire by torsional pendulum.
9. Study of viscosity of a fluid by methods.

**SEM.- II (PHYSICS)**

1. Study of a Ballistic Galvanometer.
2. Setting up and using an electroscope or electrometer.
3. Measurement of low resistance by Carey-Foster bridge or otherwise;
4. Measurement of inductance using impedance at different frequencies.
5. Measurement of capacitance using, impedance at different frequencies.
6. Response curve for LCR circuits and response frequencies.
7. Sensitivity of a cathode- ray oscillatoscope.
8. Use of a vibration magnetometer to study a field
9. Study of B field due to a current.
10. Study of decay of currents in LR and RC circuits.
11. Verification of Coulomb's Law.

**SEM.- III (PHYSICS)**

1. Study of conversion of mechanical energy into heat. (Callender & Barne's Apparatus)
2. Thermal conductivity of bad conductor by Lee's method.
3. Study of Stefan's law.
4. Study of Triode valve.
5. Determination of thermal conductivity of dielectric materials.
6. Conduction of heat through poor conductors of different Geometries.

**SEM.- IV (PHYSICS)**

1. Study of interference using Bi-prism.
2. Study of diffraction at straight edge.
3. Resolving power of telescope.
4. Polarization by reflection.
5. Study of optical rotation.
6. Refractive index and dispersive power of prism using spectrometer.
7. Measurement of sound intensities with different situation
8. Study and Characteristics of Human's ear.
9. Study of ultrasonic wave.
10. Determination of wavelength of sodium light by Newton's rings method.

**SEM.- V (PHYSICS)**

1. Determination of e/m using Thomson's method.
2. To draw the plateau characteristics of a GM counter using radioactive source.
3. Study of twin paradox.
4. Study of Photo Cell.
5. Study of diffraction by using laser light.

**SEM.- VI (PHYSICS)**

1. Characteristic of a transistor.
2. Characteristic of a tunnel diode.
3. Specific resistance and energy gap of a semiconductor.
4. Study of voltage regulation system.
5. Study of regulated power supply.
6. Study of Lissajos figures using a CRO.
7. Study of Solar Cell.
8. Characteristics of P-N Junction diode.
9. Characteristics of Zener diode.