

Experimental Skills

Familiarity with the basic approach and observations of the experiments and activities:

- * Vernier callipers-its use to measure internal and external diameter and depth of a vessel.
 - * Screw gauge-its use to determine thickness/ diameter of thin sheet/wire.
 - * Simple Pendulum-dissipation of energy by plotting a graph between square of amplitude and time.
 - * Metre Scale-mass of a given object by principle of moments.
 - * Young's modulus of elasticity of the material of a metallic wire.
 - * Surface tension of water by capillary rise and effect of detergents.
 - * Co-efficient of Viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body.
 - * Plotting a cooling curve for the relationship between the temperature of a hot body and time.
 - * Speed of sound in air at room temperature using a resonance tube.
 - * Specific heat capacity of a given (i) solid and (ii) liquid by method of mixtures.
 - * Resistivity of the material of a given wire using metre bridge.
 - * Resistance of a given wire using Ohm's law.
- Potentiometer-
- * a) Comparison of emf of two primary cells.
 - * b) Determination of internal resistance of a cell.

- * Resistance and figure of merit of a galvanometer by half deflection method,
- * Focal length of the following using parallax method:
 - * a) Convex mirror
 - * b) Concave mirror, and
 - * c) Convex lens
- * Plot of angle of deviation vs angle of incidence for a triangular prism.
- * Refractive index of a glass slab using a traveling microscope.
- * Characteristic curves of a p-n junction diode in forward and reverse bias.
- * Characteristic curves of a Zener diode and finding reverse break down voltage.
- * Characteristic curves of a transistor and finding current gain and voltage gain.
- * Identification of Diode, LED, Transistor, IC, Resistor, Capacitor from mixed collection of such items.
- * Using multimeter to:
 - * a) Identify base of a transistor
 - * b) Distinguish between npn and pnp type transistor
 - * c) See the unidirectional flow of current in case of a diode and an LED.
 - * d) Check the correctness or otherwise of a given electronic component (diode, transistor or IC).