

## I Unit

- Thin film
- Newton's Rings
- Nicol Prism / Double Refraction
- Diffraction grating
- single slit

## II Unit

- C.F.E. postulates, merits, and demerits
- Schrodinger wave equation and signification of wavefunction
- Particle in one-dimensional potential well.
- Kronig-Penney model and conclusions
- Energy band formation and classification of materials

## III Unit

- Intrinsic Semiconductors → Extrinsic Semiconductors
- Direct and indirect bandgap semiconductors.
- L.E.D, Photo diode, Solar cell.
- Hall effect.

## IV Unit

→ SEM

→ TEM

→ XRD

→ CVD

→ Ratio to the surface area and volume  $\frac{S.A}{V}$

→ sol-GEL

## V Unit

→ Lasers

→ He-Ne Laser

→ Ruby Laser

→ Emission coefficient.

→ Classification of Optical Fiber.