

PUBLIC SERVICE COMMISSION, WEST BENGAL

Syllabus for recruitment to the post of lecturer in
Physics for Govt. Polytechnics in West Bengal General Service.

S Y L L A B U S

1. **Classical Mechanics** :
Newton's laws of motion; Mechanics of a single particle; Rotational Motion; Gravitation.
2. **General Properties of matter** :
Elasticity; Surface Tension; Viscosity.
3. **Vibrations and Waves** :
Simple Harmonic Motion; General Wave Equations; Vibrations of Strings.
4. **Heat** :
Kinetic theory of gases; Equations of state; Brownian Motion.
5. **Thermodynamics** :
First and second Laws Entropy, Thermodynamic Functions.
6. **Optics** :
Geometrical Optics; eye pieces; physical optics; Interference; Diffraction, resolving power, polarisation.
7. **Electricity and Magnetism** :
Magnetic effects of currents
Varying currents
Alternating currents.
8. **Electronics** :
P - n Junctions, transistors and uses.
9. **Modern Physics** :
Bohr's theory
Millikan's experiment
X-rays, Moseleys Laws, Bragg reflection
Radio-activity, alpha, beta, gamma rays.