

LESSON PLAN B.Sc. I (IInd Sem.)

PHYSICS (Paper - I)

Properties of Matter, Kinetic Theory And Relativity

- 01 Feb - 07 Feb.
 - Unit - I Properties of Matter - Introduction
 - Elasticity
 - Stress - Strain
- 08 Feb - 14 Feb.
 - Types of Elasticity (Young's modulus, Bulk modulus, modulus of Rigidity)
 - Hook's Law
- 15 Feb. - 21 Feb.
 - Elastic Constants
 - Relation b/w Elastic Constants.
- 22 Feb. - 28 Feb.
 - Poisson's Ratio
 - Torsion of Cylinder
- 01 March - 07 March.
 - Twisting Couple
 - Bending of Beam
- 08 March - 14 March
 - Cantilevers.
 - Centrally Loaded Beam
- 15 March - 21 March.
 - Unit - II - Assumptions of Kinetic theory of Gases.
 - Law of Equipartition of Energy
- 22 March - 28 March
 - Applications for specific heats of gases.
 - Maxwell Distribution of speeds and Velocities
- 29 March - 04 April
 - Experimental Verification of Maxwell's law of speed Distribution ^{mal}
 - most probable speed, Average and r.m.s. speed.

- 5 April — 11 April.
 - Mean free path, Transport of Energy and momentum.
 - Diffusion of Gases.
- 12 April — 18 April.
 - Brownian motion
 - Real Gases
 - Vander Waal's Equation.
- 19 April — 25 April
 - Unit - III — Reference Systems
 - Inertial frames
- 26 April — 02 May
 - Galilean Invariance And Conservation Laws
 - Newtonian Relativity Principle
- 03 May — 09 May
 - Michelson - Morley Experiment
 - Lorentz Transformations.
- 10 May — 16 May
 - Length Contraction
 - Time Dilation
 - Velocity Addition theorem.
- 17 May — onwards.
 - Variation of mass with velocity
 - mass Energy Equivalence.