

Syllabus For PMT–Target (AIPMT Type) Combined Test

Date : 21.09.2014 (Part–I)

PHYSICS

Kinematics :

Frame of reference, Motion in a straight line, Position-time graph, speed and velocity, Uniform and non-uniform motion, average speed and instantaneous velocity.

Uniformly accelerated motion, velocity-time and position-time graphs, relations for uniformly accelerated motion (graphical treatment).

Elementary concepts of differentiation and integration for describing motion. Scalar and vector quantities, Position and displacement vectors, general vectors and notations, Equality of vectors, multiplication of vectors by a real number, Addition and subtraction of vectors. Relative velocity.

Unit vector, Resolution of a vector in a plane-Rectangular components. Motion in a plane. Cases of uniform velocity and uniform acceleration-projectile motion.

Unit and Dimensions.

Reflection, Refraction at plane surface and curved surface. Refraction through a lens. Optical instruments, defects of vision, Refraction through a prism, Photon and photoelectric effect.

CHEMISTRY

Chemical arithmetic-laws of chemical combination, Atomic & molecular masses, Mole concept, Percentage composition, Stoichiometry & stoichiometric calculation, Limiting reagent, Empirical formula, equivalent weight, number of organic structural isomer

Preparation of alkanes, alkenes, alkynes, E1, E2, carbocation rearrangement, Electrophilic addition –syn & anti

Solid state, chemical bonding, periodicity, Transition metals, coordination compound.

BOTANY

Life Cycle of plants, Algae, Fungi, Bryophytes, Pteridophytes, Reproduction in Flowering plants. (Covered topics)

ZOOLOGY

Living things, Complete Classification, Protozoa, Porifera & Coelenterata