

Syllabus for B.P.T. Entrance Examination

- A) Physics (25% weightage) :** Introduction and measurement, Description of motion in one, two & three dimensions. Laws of motion, work, energy and power , rotational motion, heat and thermodynamics, oscillations, waves, Electrostatics, Current Electricity: thermal, chemical and magnetic effects of currents. Magnetism, Electromagnetic Induction and alternating currents, Electromagnetic waves, Rays optics and optical Instruments, Electrons and photons, atoms, molecules and nuclei, Solids and Semiconductor devices.
- B) Chemistry (25% weightage) :** Atoms, molecules and chemical arithmetic elements, their occurrence and extraction, states of matter, atomic structures, chemical families- periodic properties, bonding and molecular structure. Carbon and its compounds. Energetic, Chemical equilibrium, redox Reactions, Rates of Chemical Reactions, Chemistry of Heavier metals, Structure and shapes of Hydrocarbons, preparation and properties of hydrocarbons, purification and characterization of organic compounds, Molecules of life, Atomic structure and chemical bonding. Solid state, Solutions, Chemical thermodynamics, Electrochemistry, Chemical Kinetics, Organic chemistry based on functional groups, Chemistry of representatives Elements, Transition Metals including Lanthanides, Synthetic and natural polymers, Surface chemistry, Bio molecules, Chemistry of biological process, Chemistry in action.
- C) Biology (Botany & Zoology)(25% weightage :** The living world, Unity of life, Diversity of life, organism and environment, Multicellularity : Structure and function – plant life and animal life, Continuity of Life, Origin and Evolution of life, Applications of biology.
- D) English (25% weightage) :** Language & Comprehension, Basic English Grammar and its uses including parts of speech, tenses, active and passive voice, direct and indirect speech.