All India NEET-UG Scholarship Test

Syllabus – Level 1 : For 10th appearing or 10th passout

Biology:

- Life processes: 'Living Being' : Basic concept of nutrition, respiration, transport and excretion in plants and animals.
- Control and co-ordination in animals and plants: Tropic movements in plants; Introduction of plant hormones; Control and co-ordination in animals: Nervous system; Voluntary, involuntary and reflex action; Chemical coordination: animal hormones.
- **Reproduction:** Reproduction in animals and plants (asexual and sexual) reproductive health need and methods of family planning. Safe sex vs HIV/AIDS. Child bearing and women's health.
- Heredity and Evolution: Heredity; Mendel's contribution-Laws for inheritance of traits: Sex determination.
- Our environment: Eco-system, Environmental problems, Ozone depletion, waste production and their solutions. Biodegradable and non-biodegradable substances.

Chemistry:

• Chemical reactions: Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement,

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precipitation, endothermic exothermic reactions, oxidation and reduction.

- Acids, bases and salts: Their definitions in terms of furnishing of H+ and OH- ions, General properties, examples and uses, neutralization, concept of pH scale (Definition relating to logarithm not required), importance of pH in everyday life; preparation and uses of Sodium Hydroxide,Bleaching powder, Baking soda, Washing soda and Plaster of Paris.
- Metals and nonmetals: Properties of metals and nonmetals; Reactivity series; Formation and properties of ionic compounds; Basic metallurgical processes; Corrosion and its prevention.
- Carbon compounds: Covalent bonding in carbon compounds. Versatile nature of carbon. Homologous series. Nomenclature of carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes, alkanes and alkynes), difference between saturated hydro carbons and unsaturated hydrocarbons. Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). Ethanol and Ethanoic acid (only properties and uses), soaps and detergents.

Physics:

 Natural Phenomena: Reflection of light by curved surfaces; Images formed by spherical mirrors, centre of curvature, principal axis, principal focus, focal length,



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mirror formula (Derivation not required), magnification. Refraction; Laws of refraction, refractive index. Refraction of light by spherical lens; Image formed by spherical lenses; Lens formula (Derivation not required); Magnification. Power of a lens. Functioning of a lens in human eye, defects of vision and their corrections, applications of spherical mirrors and lenses. Refraction of light through a prism, dispersion of light, scattering of light, applications in daily life.

How Things Work: Effects of Current Electric current, potential difference and electric current. Ohm's law; Resistance, Resistivity, Factors on which the resistance of a conductor depends. Series combination of resistors, parallel combination of resistors and its applications in daily life. Heating effect of electric current and its applications in daily life. Electric power, Interrelation between P, V, I and R. Magnetic effects of current : Magnetic field, field lines, field due to a current carryingconductor, field due to current carrying coil or solenoid; Force on current carrying conductor, Fleming's Left Hand Rule, Direct current. Alternating current: frequency of AC. Advantage of AC over DC. Domestic electric circuits.