

**UNIT – I**

Definition and types of natural resources, Renewable and non-renewable resources concept of conservation: Objectives and aims of conservation, Policies and strategies of conservation. Conservation of soil: types of soil, soil components, Land use pattern and planning, reasons of soil degradation, soil erosion and its control measures.

**UNIT – II**

Principal forest types in India, causes of forest degradation (forest fires, forest land degradation, Illicit felling, grazing, shifting cultivation etc.), Forest conservation measures— Social forestry (Farm forestry, village forestry, agro forestry, extension forestry), role of forestry in eco-development of rural areas, ethno-botanical studies in India.

**UNIT – III**

Biological Diversity: Definition, Species diversity, genetic diversity and ecosystem diversity. Types:  $\alpha$ ,  $\beta$ ,  $\gamma$  diversity. Key stone species. Biodiversity hot spots. IUCN categories— Red data book. Biodiversity Conservation Plans in India, Hotspots of Biodiversity, Reasons for its depletion, Scope of Biodiversity.

**UNIT – IV**

Energy Resources: Sun as a source of energy, nature of its radiation. Fossil fuels: coal, petroleum/ oil and natural gas. Mineral resources. Environmental impacts of exploiting, processing and smelting of minerals. Hydroelectric power, tidal, wind, biomass, geothermal energy, solar and nuclear energy (atomic).

**UNIT – V**

Conservation of aquatic system: Global water balance, ice-sheets and fluctuations of sea levels, origin and composition of sea-water. water resources of India. Need and strategies of conservation of aquatic resources (Lentic and lotic), conservation of aquatic life. Watershed management, and factors influencing the surface water and runoff process. Rain water harvesting. and water foot prints.

**NOTE:** The question paper shall consist of two sections (A & B). Section A shall contain ten short answer type questions of six marks each and student has to attempt any five questions in about 150 words each. Section B shall consist eight long answer type questions of ten marks each and student shall be required to attempt any four questions in detail. Questions shall be uniformly distributed from the entire syllabus. The previous year paper can be used as a guideline and the following syllabus should be strictly followed while setting the question paper.