

BHUPAL NOBLES' UNIVERSITY, UDAIPUR(RAJ.)

Environmental Studies (ENVS 102)

The syllables and scheme of examination is as under: Compulsory in 1st year for all streams at undergraduate level

Unit-1:

The multidisciplinary nature of environmental studies and Natural Resources – Definition, scope and awareness, Need for public awareness.

Renewable and non-renewable resources, Natural resources and associated problems.

1. Forest resources - Use and over-exploitation, Deforestation, Timber exploitation, Mining - Dams and their effects on forests and tribal people.

2. Water resources. - Use and over utilization of surface and ground water, Floods , Drought ,Conflicts over water, Dams benefits and problems.

3. Mineral resources. - Use and exploitation, Environmental effects of extracting and using mineral resources.

4. Food resources- World food problems, Changes caused by agriculture and overgrazing, Effects of modern agriculture, Fertilizer, pesticide problems, Water logging, Salinity.

5. Energy resources: - Growing energy needs. - Renewable and non-renewable energy resources. - Use of alternate energy resources.

6. Land resources: - Land as a resource. - Land degradation. - Man induced landslides. - Soil erosion & desertification. Role of an individual in conservation of natural resources. Equitable use of resources for sustainable system.

Unit-2:

Ecosystem: - Concept of an ecosystem. - Structure and function of an ecosystem. - Producers, consumers and decomposers. - Energy flow in the ecosystem. - Ecological succession. - Food chains, food webs and ecological pyramids. - Introduction types, characteristic features, structure and function of the following ecosystems. - Forest ecosystem. - Grassland ecosystem - Desert ecosystem. - Aquatic ecosystems (ponds, streams, lakes, rivers, oceansestuaries).

Unit-3:

Biodiversity and its conservation: - Introduction, definition and diversity at genetic, species and ecosystem level. - Biogeographically classification of India. - Value of biodiversity, consumptive use productive use, social, ethical, aesthetic and option values. - Biodiversity at global, national & local levels. - India as a mega-diversity nation. - Hot-spots of biodiversity. - Threats to biodiversity - habitat loss poaching of wild life, man-wild life conflicts. - Endangered and endemic species of India. - Conservation of biodiversity – In situ and Ex-situ conservation of biodiversity.

Unit-4:

Environmental Pollution: - Definition, causes, effect and control measures of - Air pollution. - Water pollution - Soil pollution. - Marine pollution - Noise pollution - Thermal pollution - Nuclear hazards. - Solid waste management: Causes, effects and control measures of urban industrial wastes. - Role of an individual in prevention of pollution. - Disaster management: Flood, earthquake, cyclone and landslides.

Unit-5:

Social issues, Human Population and the Environment: - From unsustainable to sustainable development - Urban problems related to energy. - Water conservation, rain water harvesting, water shed management. - Settlement and rehabilitation of people, its problem of concerns. - Environmental ethics-issues and possible solutions. Ozone layer depletion, nuclear accidents. - Wasteland reclamation. Consumerism and waste products. - Environmental protection Act. i. Air () prevention and control of pollution Act

ii. Wild life protection Act iii. Forest conservation Act. - Issues involved in enforcement of environmental legislation. - Public awareness.

Population growth, variation among nations. - Population explosion-Family welfare programme. – Environment and Human health. - Human rights.

Value education. - HIV/AIDS - Women & child welfare. - **Role of information technology in environment and human health.**

Field Work - Visit to a local area to document environmental assets-river/forest/ grassland/ hill/ mountain. - Visit to local polluted site- Urban/rural/industrial/agricultural. - Study of common plants, insects and Birds. - Study of simple ecosystem-Pond, river, hill slope etc.