

ENVIRONMENTAL STUDIES & ETHICS
For B.A., B.Sc. & B.Com Part-III
Semester- V

Full Marks : 100

Time : 3 Hrs.

Pass Marks: 45

Unit – 1: The Multi-disciplinary nature of environmental studies.

- Definition, scope and importance, Need for public awareness.

Unit - 2 : Man, Environment and Society

-Individual's rights and responsibilities towards clean environment, environmental ethics, ethics and moral, Approach of Vivekanand and Mahatma Gandhi towards youth. Women and Social developments. Throw away society ethics, sustainable earth society ethics, ethical guidelines environment, Hunting and gathering society, Environmental movement and people's participation, scope and objective Environmental movement like Chipko, Tehri Dam, Narmada Dam, Silent Valley - Role of Tribal people, women and NGOs in Environment protection.

Unit - 3 : Social issues and the Environment

From unsustainable to sustainable development - urban problems related to energy, - Water conservation, rain water harvesting, water-shed management, -Resettlement and rehabilitation of people; its problems and concerns. Case Studies - Environment ethics : Issues and possible solutions. - Climate change, Global Warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies. - Waste-land reclamation. - Consumerism and waste products, - Environment Protection Act, Air (Prevention and control of Pollution) Act. - Water (Prevention and Control of Pollution) Act.- Wildlife Protection Act. - Forest Conservation Act. - Issues involved in Enforcement of environmental legislation. - Public awareness.

Unit - 4 : Human Population and Environment.

Population growth, variation among nations, - Population explosion, Family welfare Programme, - Environment and human health, Human rights, Value Education, - HIV/ AIDS, -Women and Child Welfare, Rob Information Technology in Environment and human health case studies IPR.

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Semester- VI

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Unit - 5 : Environmental Pollution

Definition, Causes, Effects and control Measures of :

- (a) Air Pollution, (b) Water Pollution,
- (c) Soil Pollution, (d) Marine Pollution
- (e) Noise Pollution, (f) Thermal Pollution
- (g) Nuclear Hazards (h) Solid Waste Management : Causes, effects and control
- (i) Measures of urban and Industrial wastes.
- (j) Role of an Individual in prevention of pollution.
- (k) Pollution case studies.
- (l) Disaster Management : Floods, Earthquake, Cyclone and Land slides

Unit - 6 : Natural Resources :

Renewable and Non-Renewable resources

Natural resources and associated problems.

- (a) **Forest resources** : Use and over-exploitation, deforestation case studies. Timber extraction, mining, dams and their effects on forests and, tribal people.
- (b) **Water Resources** : Use and over-utilization of surface and ground water, floods, draught, conflicts over water, dams benefits and problems.
- (c) **Mineral Resources** : Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
- (d) **Food Resources** : World food problems, changes caused by agriculture and over-grazing effects of modern agriculture, fertilizer pesticide problems, water logging, salinity, case studies.
- (e) **Energy Resources** : Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies.
- (f) **Land Resources** : Land as a resource, land degradation, man induced land slides, soil erosion and desertification, -Role of an individual in conservation of natural resources. - Equitable use of resources for sustainable lifestyles.

Unit - 7 : Ecosystem

Concept of an ecosystem, Structure and function of an ecosystem.

Producers, consumers and decomposers. Energy flow in the eco-system, Ecological succession, Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of following ecosystems :

- (a) Forest ecosystem, (b) Grassland ecosystem,
- (c) Desert ecosystem,
- (d) Aquatic ecosystem (ponds, streams, lakes, rivers, oceans, estuaries)

Unit - 8 : Biodiversity and its conservation

Introduction, Definition : genetic species an ecosystem diversity, - Biogeographical classification of India. - Value of Bio-diversity : consumptive use, productive use, social, ethical, aesthetic and option values. - Biodiversity at global, National and, local levels. - India as a mega-diversity nation. - Hotspots of biodiversity, Threats to Bio-diversity : habitat loss, poaching of wildlife, man wildlife conflicts, Endangered and endemic species of India. - Conservation of Bio-diversity : In-situ and Ex-situ conservation of Biodiversity.

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