

## **Environmental Studies & Ethics**

### **Honours and General (Compulsory Paper)**

#### **PART –III**

**Full Marks: 100**

**Pass Marks: 33**

**Time: 3 Hrs.**

#### **Unit1: The Uti-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 and moral, Approach of Vivekananda and Mahatma Gandhi towards youth, women and social developments.

-Throw-away society ethics, sustainable earth society ethics, ethical guide lines environment, Hunting and gathering society, agricultural society, Indus trial society, knowledge society, Environmental movements and peoples participation scope and objective environmental movements like chipko, Tehri Dam, Narmada Dam, Silent Vally- Role of tribal people, women and NGOs in Environmental protection.

#### **Unit 3: Social issues and the Environment**

From unsustainable to Sustainable development, -Urban problems related to energy, Water conservation, rain water harvesting, watershed 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, Role of Information Technology in Environment and Human health case studies IP.

#### **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.

Solid waste management: Causes, effects and control measures of urban and industrial wastes, role of an individual in prevention of pollution, Pollution case studies, Disaster management: Floods, Earthquake, Cyclone and Landslides.

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**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, drought, conflicts over water, dams' benefits and problems.
- (c) Mineral resources: Use and exploitation, environmental effect of extracting and using mineral resources, case studies.
- (d) Food resources: world food problems, changes caused by agriculture and overgrazing 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 in ducted landslides soil erosion and desertification-
  - Role of non dividable in conservation of natural resources.
  - Equitable use of resources for sustainable life styles.

**Unit 7: Ecosystems**

Concept of an ecosystem- Structure and function of an ecosystem Producers, consumers and decomposers- Energy flow in the ecosystem- Ecological succession- Food chains, webs and ecological pyramids. Introduction, types, characteristic features structure and function of the following ecosystem:

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

**Unit 8: Bio-diversity and its conservation**

Introduction-definition: genetic species and ecosystem diversity- Biographical classification of India- Value of Bio-diversity: consumptive use productive use, social ethical, aesthetic and option values- Bio-diversity, global, National and local levels- India as a Mega-diversity nation- Hot spots of Bio-diversity, Threats to Bio-diversity habitat loss, poaching wild life, man wild life conflicts- Endangered and endemic species of India conservation of Bio-diversity: In situ and Ex-situ conservation of Biodiversity.

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