

UEN001 ENVIRONMENTAL STUDIES

Definition and Scope: Importance, Public awareness and education.

Natural Resources: Introduction, Renewable and non-renewable, Forest, water, mineral, food, energy and land resources, Individual and conservation of resources, Equitable use of resources.

Ecosystems: Concept, Structure, Function, Energy flow, Ecological succession, Forest, grassland, desert and aquatic ecosystems - Introduction, characteristic features, structure and function.

Biodiversity: Genetic, Species and ecological diversity, Biogeographical classification of India, Value and hot spots, Biodiversity at global, national and local levels, India as mega-biodiversity nation, Threats to biodiversity, Endangered and endemic species of India, Conservation of Biodiversity, Endangered and endemic species, Conservation of biodiversity.

Pollution: Definition, Causes, effects and control measures of the pollution – Air, soil, Noise, Water, Marine and Thermal and Nuclear Pollution, Solid waste management, Role of Individual in Prevention of Pollution, Pollution case studies, Disaster management.

Social Issues: Sustainable development, Water conservation, Environmental ethics, Climatic change, Wasteland reclamation, Environmental protection acts and issues.

Human Population and the Environment: Population growth, Environment and human health, Human rights, HIV/AIDS, Value education, Women and child welfare, IT in human health and environment, Case studies.

Text Books

1. Bharucha, E., *Textbook of Environmental Studies*, Universities Press (2005).
2. Chapman, J.L. and Reiss, M.J., *Ecology- Principles and Application*, Cambridge University Press (LPE) (1999).
3. Joseph, B., *Environmental Studies*, Tata McGraw-Hill (2006).

Reference Books

1. Miller, G.T., *Environmental Science- Working with Earth*, Thomson (2006).
2. Wright, R.T., *Environmental Science-Towards a sustainable Future*, Prentice Hall (2008) 9th ed.