

Syllabus

Dr.B.R. Ambedkar Open University
U.G. I year Semester-~~II~~ (B.Sc/B.A./B.Com) CBCS
Ability Enhancement Compulsory Course- Environmental Studies

BLOCK-I

Unit-1 Introduction to Environmental Studies.

Definition, Scope and Importance, Atmosphere, Hydrosphere, Lithosphere, Biosphere, Natural Resources: Water, Minerals, Bioresources, Land and Soil, Public Awareness, Need for Public Awareness and Ethics.

Unit-2 Ecosystem

Structure of Ecosystem: Abiotic Components. Biotic Components: Producers, Consumers, Decomposers, Food Chains, Food Webs, Ecological Pyramids, Functions of an Ecosystem, Biogeochemical Cycles, Energy Flow in the Ecosystem.

Unit-3 Biodiversity

Definition of Biodiversity, Genetic- Species- and Ecosystem Diversity, Hot-Spots of Biodiversity, Threats to Biodiversity, Conservation of Biodiversity (In-situ & Ex-situ), Extinction of Species – Red Data Book.

Unit-4 Resources-Management

Renewable and Non-Renewable Resources, Forest, Mineral and Green Energy (Solar Energy, Wind Energy, Geothermal Energy and Bio-Energy) Resources.

BLOCK-II

Unit-5 Environmental Pollution, Causes, Effects and Control Measures.

Causes, Effects and Control Measures of Air Pollution, Water Pollution, Soil Pollution, Noise Pollution, Thermal Pollution, Radioactive Pollution and Solid Waste Management.

Unit-6 Global Environmental Issues

Global Warming, Ozone Layer Depletion, Acid Rain and Climate Change, Water Conservation, Watershed Management, Population Explosion, Food Security, Human Rights, Women and Child Welfare.

Unit-7 Disaster Management

Types of Disasters, Impact of Disasters on Environment, Infrastructure and Development. Basic Principles of Disaster Mitigation and Management.

Unit-8 Environmental Legislation and Sustainable Development

Environment Protection Acts: Air, Water, Forest, Wild Life and Biodiversity. Issues involved in Enforcement of Environmental Legislation. Environmental Treaties, Community Participation, Role of Information Technology in Environment and Human Health. Sustainable Development.