**Environmental Sciences (BVORAD-301)**

UNIT 1

The Multidisciplinary Nature of Environmental Studies Definition, Scope and Importance, Need for public awareness 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 Role of individual in conservation of natural resources, Equitable use of resources for sustainable lifestyles

UNIT 2

Ecosystems- Concept of ecosystem, Structure and function of ecosystem, Producers, Consumers and Decomposers, Energy flow in the ecosystem, Ecological succession, Food chains, food webs and ecological pyramids.

UNIT 3

Biodiversity and its conservation- Introduction- Definition: genetic, species and ecosystem diversity, Bio-geographical classification of India, Value of biodiversity: consumptive use, productive use, social, ethical, Aesthetic and option values, India as a mega-diversity nation, Hot-sports 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

UNIT 4

Social Issues and the Environment- From Unsustainable to Sustainable development, Urban problems related to energy, Re-settlement and rehabilitation of people; its problems and concerns, Environmental ethics: Issues and possible solutions, Climate changes, global warming, acid rain, ozone layer depletion, Consumerism and waste products, Environment Protection Act, Issues involved in enforcement of environmental legislation, Public awareness

UNIT 5

Human Population and the Environment Population growth, variation among nation, Population explosion- Family Welfare Programme, Environment and Human Health, Human Rights, Value Education, Role of Information Technology in Environment and Human health

REFERENCE BOOKS

- Environmental Studies by Kumarasamy K., A. Alagappa Moses, M. Vasanthy from Bharathidsan University Publications 2004, Trichy

-Environmental Studies by Rajamannar EVR College Publications 2004