

Foundation Course-2: Environmental Studies
(Common for All UG Programs)

- Unit-I: Natural Resources: 6 Hrs
Definition, Scope and importance. Need for public awareness.
Brief description of;
- Forest resources: Use and over-exploitation. Deforestation; timber extraction, mining, dams. Effect of deforestation environment and tribal people
 - Water resources: Use and over-utilization. Effects of over utilization of surface and ground water. Floods, drought.
 - Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources.
 - Food resources: World food problems, Effects of modern agriculture; fertilizer- pesticide, salinity problems.
 - Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources.
 - Land resources: Land as resources, land degradation, man induced landslides, soil erosion and desertification
- Unit-II : Ecosystems, Biodiversity and its conservation 6 Hrs
- Concept of an ecosystem
 - Structure and function of an ecosystem
 - Producers, consumers and decomposers
 - Food chains, food webs and ecological pyramids
 - Characteristic features of the following ecosystems:-Forest ecosystem, Desert ecosystem, Aquatic ecosystem.
 - Value of biodiversity: Consumptive use, productive use. Biodiversity in India.
 - Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts.
 - Endangered and endemic species of India
 - Conservation of biodiversity
- Unit-III : Environmental Pollution 6 Hrs
- Definition, Causes, effects and control measures of:- Air pollution, Water pollution, Soil pollution, Noise pollution
 - Solid waste management; Measures for safe urban and industrial waste disposal
 - Role of individual in prevention of pollution
 - Disaster management: Drought, floods and cyclones
- Unit-IV: Social Issues and the Environment 6 Hrs
- From Unsustainable to Sustainable development
 - Water conservation, rain water harvesting, watershed management.
 - Climate change, global warming, ozone layer depletion,
 - Environment protection Act
 - Wildlife Protection Act, Forest Conservation Act
- Unit-V: Human Population and the Environment 6 Hrs

- Population explosion, impact on environment.
- Family welfare Programme
- Environment and human health
- Women and Child Welfare
- Value Education
- Role of Information Technology in Environment and human health.

References:

1. M.Satyanaarayana, M.V.R.K.Narasimhacharyulu, G. Rambabu and V.VivekaVardhani, Environmental Studies, Telugu Academy, Hyderabad.
2. R.C.Sharma and Gurbir Sangha, Environmental Studies, Kalyani Publishers.
3. Purnima Smarath, Environmental Studies, Kalyani Publishers.