

Syllabus

RAS 302/RAS 402 : ENVIRONMENT & ECOLOGY

Unit	Content	Hours
UNIT-I	Definition, Scope & Importance, Need For Public Awareness- Environment definition, Eco system – Balanced ecosystem, Human activities – Food, Shelter, Economic and social Security. Effects of human activities on environment-Agriculture, Housing, Industry, Mining and Transportation activities, Basics of Environmental Impact Assessment. Sustainable Development.	8
UNIT-II	Natural Resources. Water Resources- Availability and Quality aspects. Water borne diseases, Water Induced diseases, Fluoride problem in drinking water. Mineral Resources, Forest Wealth, Material cycles- Carbon, Nitrogen and Sulphur Cycles. Energy – Different types of energy, Electro-magnetic radiation. Conventional and Non-Conventional sources – Hydro Electric, Fossil Fuel based, Nuclear, Solar, Biomass and Bio-gas. Hydrogen as an alternative future source of Energy.	8
UNIT-III	Environmental Pollution and their effects. Water pollution, Land pollution. Noise pollution, Public Health aspects, Air Pollution, Solid waste management, e-waste management Current Environmental Issues of Importance: Population Growth, Climate Change and Global warming- Effects, Urbanization, Automobile pollution. Acid Rain, Ozone Layer depletion, Animal Husbandry.	8
UNIT-IV	Environmental Protection- Role of Government, Legal aspects, Initiatives by Non-governmental Organizations (NGO), Environmental Education, Women Education.	8

Text Books

- 1.Environmental Studies – Benny Joseph – Tata McgrawHill-2005
- 2.Environmental Studies – Dr. D.L. Manjunath, Pearson Education-2006.
- 3.Environmental studies – R, Rajagopalan – Oxford Publication - 2005.
- 4.Text book of Environmental Science & Technology – M. Anji Reddy – BS Publication.

Reference Books

- 1.Principles of Environmental Science and Engineering – P. Venugoplan Rao, Prentice Hall of India.
- 2.Environmental Science and Engineering – Meenakshi, Prentice Hall India.