

NIZAM COLLEGE (AUTONOMOUS), HYDERABAD

Department of Environmental Studies

Syllabus w.e.f. 2020-21

UNIT – I: Ecosystem, Biodiversity & Natural Resources

1. Definition, Scope & Importance of Environmental Studies.
2. Structure of Ecosystem – Abiotic & Biotic components Producers, Consumers, Decomposers, Food Chains, Food Webs, Ecological pyramids.
3. Function of an Ecosystem: Energy flow in the Ecosystem (Single channel energy flow model).
4. Definition of Biodiversity, Genetic, Species & Ecosystem diversity, Hot-spots of Biodiversity, Threats to Biodiversity, Conservation of Biodiversity (Insitu & Exsitu).
5. Renewable & Non – Renewable resources, Brief account of Forest, Mineral & Energy (Solar Energy & Geothermal Energy) resources.
6. Water Conservation, Rain water harvesting & Watershed management.

UNIT – II: Environmental Pollution, Global Issues & Legislation

1. Causes, Effects & Control measures of Air Pollution, Water Pollution.
2. Solid Waste Management.
3. Global Warming & Ozone layer depletion.
4. Ill – Effects of Fire Works. (Negative effects of crackers).
5. Disaster Management – floods, earthquakes & cyclones.
6. Environmental Legislation: -
 - a. Wild Life Protection
 - b. Forest Act
 - c. Water Act
 - d. Air Act
7. Human Rights
8. Women and Child Welfare.
9. Role of Information technology in environment and human health.

Field Study:

1. Pond Ecosystem
2. Forest Ecosystem

Suggested reading:

1. Environmental Studies – from crisis to cure – by R. Rajagopalan (Third edition) Oxford University Press.
2. Text book of Environmental Studies for undergraduate courses (second edition) by Erach Bharucha.
3. A text book of Environmental Studies by Dr. D.K. Asthana and Dr. Meera Asthana.