**B.COM.**

**SEMESTER I**

**Environmental Studies – I**

**(50 Marks – 30 Lectures)**

**Unit. I .** **The Multidisciplinary nature of environmental studies (05 Marks -03 Lectures)**

Definition, scope and importance

Need for public awareness.

**Unit II. Natural Resources: Renewable and non-renewable resources:**

**(15 Marks – 9 Lectures)**

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.

b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams benefits and problems.

c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies

e) Energy resources: Growing energy needs, renewable and non- renewable energy sources use of alternate energy sources. Case studies.

f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

Role of an individual in conservation of natural resources.

Equitable use of resources for sustainable lifestyles.

**Unit III. Ecosystems : (15 Marks – 9 Lectures)**

Concept of an ecosystem.

Structure and function of an ecosystem.

Producers, consumers and decomposers.

Energy flow in the ecosystem.

Ecological succession.

Food chains, food webs and ecological pyramids.

Introduction, types, characteristic features, structure and function of the following ecosystem:

a. Forest ecosystem

b. Grassland ecosystem

c. Desert ecosystem

d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

**Unit IV. Biodiversity and its conservation : (15 Marks – 9 Lectures)**

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, Biodiversity at global, National and local levels. India as a mega-diversity nation, Hot-spots of biodiversity.

Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts

Endangered and endemic species of IndiaConservation of biodiversity: In-situ and Ex-situ, conservation of biodiversity.

Weightage: ISA: 10 + S.E.E: 40 Total= 50.

INSTRUCTIONS

1 Maximum thrust may be given to local regional and national examples.

2. Q. No. 1 being objective it should include questions from all units of the term.

3. Questions should be set with due weightage to all the units as specified

Pedagogic suggestion:

The Current topic of Regional & National interest have to be updated by referring to subject journals - Down to Earth, Current Science, Yojna and Other relevant materials.

**References:**

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9. Hawkins R.E, Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R)

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(M) Magazine

( R )Reference

(TB)Textbook