

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 1157 Roll No.

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### B.Tech.

(SEM. I) ODD SEMESTER THEORY EXAMINATION 2013-14

## ENERGY, ENVIRONMENT AND ECOLOGY

Time : 3 Hours

Total Marks : 80

### SECTION-A

Attempt all parts of this question. Each part carries 2 marks. (2×8=16)

- (a) What are the basic components of ecosystem ?

(b) How do you classify our natural resources ?

(c) Which greenhouse gas other than methane is being produced by agricultural fields ?

(d) Mention the purpose of mulching.

(e) Define Eutrophication.

(f) Classify all the different categories of pollutants with examples.

(g) Which gas is produced during anaerobic digestion process ?

(h) What is Endemism ? Give two examples of endemic species.

### SECTION-B

Attempt any *three* parts of this question. Each part carries 8 marks. (8×3=24)

- (a) Describe the effects of deforestation. Explain the measures taken for its remedy to conserve forest wealth.

(b) Discuss in brief the concept of 'Solid Waste Management' with the basic problems involved. Distinguish between the incineration and combustion methods of solid waste disposal.

(c) Discuss how Population, Poverty and Pollution are interrelated to one another.

(d) Comment on phenomenon of Global warming and Greenhouse effect. Discuss the effects of Global warming and Greenhouse effects and its remedial measures.

(e) Define ecosystem and ecology. Explain its various components with their functions including flow of energy and direction orientation.

### SECTION-C

Attempt *all* questions of this Section. Each question carries 8 marks. (8×5=40)

3. Explain different types of Ecological Pyramids with suitable examples.

**OR**

Discuss the need for public awareness for the conservation and protection of environment.

4. How do we get electricity from the fossil fuels? Explain impacts of fossil fuels on environment.

**OR**

Discuss Nuclear Energy with its advantages and disadvantages.

5. Is 'equity' important for sustainable development? How does 'sustainability' relate to equity? Discuss.

**OR**

Discuss in detail the major environmental impacts of mineral extraction.

6. Enumerate various types of pollutants that cause pollution of water bodies. Suggest various measures to minimize water pollution.

**OR**

Explain waste water treatment plant with the help of diagram.

7. Discuss the salient features of Wildlife Protection Act.

**OR**

What is Environmental Impact Assessment? Discuss its importance in planning and implementation of engineering projects.