

Roll No

BE - 202**B.E. I & II Semester**

Examination, June 2016

Energy Environment Ecology and Society*Time : Three Hours**Maximum Marks : 70*

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each questions are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

Unit - I

1. a) Define renewable and non-renewable energy resources.
- b) Explain how thermal energy is harnessed from solar pond.
- c) Briefly explain the nuclear fission and nuclear fusion. State the difference between them.
- d) What is geothermal energy? How it is used for generation of electric power? Discuss its merit and limitations.

OR

How is wind energy used for generation of electric power? Discuss the merit and limitation of wind energy.

Unit - II

2. a) What is an environment? Enlist various segment of environment.
- b) "The distinguishing feature of the biosphere is that it support life". Justify the statement.
- c) Draw a neat sketch of the nitrogen cycle.

- d) Discuss the concept of biodiversity at three hierarchical levels. Write importance and conservation of biodiversity.

OR

Define ecosystem. Give an account of the structure and function of an ecosystem.

Unit - III

3. a) How you will classify Air Pollutants?
- b) What is Noise?
- c) Explain the creation of Ozone hole over Antarctica.
- d) What are green house gases? Name and discuss their contribution to global warming. What can be the effects of global warming? What are the remedial measures?

OR

Discuss the significant chemical and photo chemical reactions in the atmosphere.

Unit - IV

4. a) What do you understand by soil profile?
- b) Differentiate between B.O.D. and C.O.D.
- c) Draw a sketch of a conventional trickling filter.
- d) Discuss aerobic and anaerobic waste water treatment methods with their advantages and disadvantages.

OR

State and describe various treatment processes used in the treatment of industrial waste water.

Unit - V

5. a) What do you understand by the term waste? Enlist various categories of waste.
- b) State and discuss the '3Rs' of waste management.
- c) Differentiate between morals, values and ethics.
- d) Discuss in brief, the various methods of solid waste disposal with their advantages and disadvantages.

OR

Briefly discuss the salient feature of the Environment (Protection) Act, 1986.

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