

BE - 202

B.E. I & II Semester

Examination, December 2015

Energy Environment Ecology & 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) What are fossil fuels?
- b) Discuss hydrogen as an alternative future resource of energy.
- c) Write down brief account of utility and waste management of hydro power plants.
- d) What is photovoltaic cell? Explain how electricity is generated by solar photovoltaic systems. What are the merit and limitations of solar photovoltaic systems.

Or

What is Nuclear energy? Discuss Indian nuclear energy programme.

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Unit - II

2. a) Draw and explain oxygen cycle in nature.
- b) What is biome? Enlist various types of biomes.
- c) Explain 'In-situ' and 'Ex-situ' conservation along with their merits and limitations.
- d) Write an explanatory note on 'Endangered and Endemic species of India'.

Or

How would you broadly divide the major layers or regions of atmosphere? State their respective altitude and temperature ranges. Write down the major components of troposphere.

Unit - III

3. a) What is acid rain? Explain.
- b) Explain decibel scale.
- c) "Carbon dioxide functions as a global thermostat". Justify the statement.
- d) What is air pollution? What are the sources of NO_x and Hydrocarbon in the atmosphere? Write the harmful effect of NO_x and Hydrocarbon. How these are controlled?

Or

What is noise pollution? Write the adverse effects of noise pollution. What are the sources and control measures of noise pollution?

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Unit - IV

4. a) Explain soil erosion.
- b) What is tertiary treatment of sewage? Under what circumstances it is required?
- c) Write short note on Phytoremediation.
- d) Define water pollution. Classify and discuss in brief, the various types of water pollutant. Discuss the adverse effects of water pollution.

Or

What is object of domestic waste water treatment? Name the various units of treatment employed in sewage treatment plant and state their function.

Unit - V

5. a) Describe various ethical situation.
- b) What are major components that contain toxic materials in electronic waste (E-waste)?
- c) What do you understand by the term 'Waste management'? Name and discuss the three basic functional elements of waste managements.
- d) Write down various methods of disposal of waste alongwith their merits and demerits.

Or

Write down salient features of Environment (Protection) Act, 1986.
