

## B.Tech 1st Semester Exam., 2017

## ENVIRONMENTAL SCIENCE

Time : 3 hours

Full Marks : 70

## Instructions :

- (i) The marks are indicated in the right-hand margin.
- (ii) There are **NINE** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question No. 1 is compulsory.

1. Choose the correct answer (any seven) :  
2×7=14

- (a) The Forest (Conservation) Act extends to the whole of India except
  - (i) Uttar Pradesh
  - (ii) Karnataka
  - (iii) Jammu and Kashmir
  - (iv) Haryana
- (b) Penalty for conservation of the provisions of the Forest Act is under
  - (i) Section 3A
  - (ii) Section 4A
  - (iii) Section 12A
  - (iv) Section 8A

- (c) The Environmental (Protection) Act was enacted in the year
  - (i) 1986
  - (ii) 1992
  - (iii) 1984
  - (iv) 1974
- (d) Persons working in cement plants and limestone quarries are more prone to disease like
  - (i) fluorosis (bone disease)
  - (ii) asthma
  - (iii) cancer
  - (iv) silicosis
- (e) *Ex situ* conservation includes
  - (i) zoo
  - (ii) botanical garden
  - (iii) germplasm bank
  - (iv) All of the above
- (f) The process of corrosion is enhanced by
  - (i) air and moisture
  - (ii) electrolytes in water
  - (iii) metallic impurities and gases like CO<sub>2</sub> and SO<sub>2</sub>
  - (iv) All of the above

- (g) The most common cause of acidity in water is
- CO<sub>2</sub>
  - O<sub>2</sub>
  - H<sub>2</sub>
  - N<sub>2</sub>
- (h) Abiotic environment does not include
- air
  - water
  - soil
  - plants
- (i) Medicine of quinine is provided by
- eucalyptus plant
  - aconite plant
  - cinchona plant
  - money plant
- (j) Air is composed of gases, water vapours and
- dust particles
  - rainfalls
  - snowfalls
  - lights

- 2/ (a) Describe the approach and methods of noise control. 5
- (b) "Environmental laws are crucial for environmental management." Comment. 5
- (c) What are wastelands? How are they classified? 4
3. (a) What is acid rain? What are the causes and effects of acid rain? How can this problem be overcome? 6
- (b) Write short notes on : 8
- Physical properties of water
  - Structure of atmosphere
4. (a) Give a brief account on forest resource of India. 7
- (b) Define an ecological pyramid and its various types. 7
5. Describe abiotic and biotic components of any freshwater ecosystem. 14
6. Write short notes on (any four) : 14
- Renewable energy
  - Ocean ecosystem
  - Desertification
  - Marine pollution
  - Geothermal energy

7. (a) What is Ecomark? What are the objectives of the Ecomark scheme? What are the criteria on the basis of which a product is considered as an environment friendly product? 10
- (b) Discuss the concept of endangered species. 4
8. (a) Name and describe the characteristic features of various types of ecosystem (biomes). Also describe the structure and function of the forest ecosystem. 7
- (b) Discuss the environmental effects of extracting and using mineral resources. 7
9. Differentiate between the following : 14
- (a) Renewable and non-renewable resources
- (b) Suspended and dissolved solids
- (c) Organic and inorganic pollutants
- (d) Biotic and abiotic

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