

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

**PAPER ID : 3101**

Roll No.

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## **B. Tech.**

### **(Semester-I) Theory Examination 2011-12**

#### **ENVIRONMENT & ECOLOGY**

*Time : 2 Hours]*

*[Total Marks : 50*

*Note :* The question paper contains three Sections, Section-A, Section-B and Section-C with the weightage of 10, 10 and 30 marks respectively. Follow the instructions as given in each Section.

#### ***Section-A***

This Section contains 10 questions of fill in the blanks and true and false type questions. Attempt *all* parts of this Section.

1. Fill in the following blanks with suitable words :

1×6=6

- (a) With the increasing height, air temperature drops uniformly with altitude, this phenomenon is commonly called \_\_\_\_\_.

- (b) The study of reciprocal relationship between organisms and environment is called \_\_\_\_\_
- (c) Eutrophication of lakes is caused the excessive presence of \_\_\_\_\_ and \_\_\_\_\_.
- (d) Chipko movement in Tihri Garhwal region was initiated by \_\_\_\_\_.
- (e) PAN is formed by the concentration of oxides of nitrogen and \_\_\_\_\_ in presence of sun light.
- (f) Concentration of up to \_\_\_\_\_ ppm of ozone has almost negligible effect on human health.

2. Indicate True and False for the following statements :

1×4=4

- (a) Sludge left over in the biogas plant cannot be used as a fertilizer. (True/False)
- (b) The Wildlife (Protection) Act, 1972 is adopted all over India including Jammu & Kashmir. (True/False)
- (c) Solid waste materials degraded by micro-organisms are called non-biodegradable. (True/False)

- (d) Mining of Uranium exposes local people to radioactive hazards. (True/False)

**Section-B**

3. Attempt any five parts of the following :  $2 \times 5 = 10$

- (a) Classify ecosystem on the basis of energy sources.
- (b) Briefly discuss the impacts of urbanization on environment.
- (c) Discuss briefly the water-borne diseases.
- (d) Define hydrological cycle.
- (e) Write a short note on nuclear energy.
- (f) Discuss the effects of soil pollution which affect the soil productivity.
- (g) What is meant by 'Population Stabilization'?
- (h) Briefly discuss the account of the importance of environmental studies.

**Section-C**

4. Attempt any five parts of the following :  $6 \times 5 = 30$

- (a) Classify the atmosphere on the basis of temperature variation. State the main activities taking place in each of them.

- (b) State the chief characteristic features of a desert ecosystem and describe the structure and their functions.
- (c) What do you mean by waterlogging and salinization? What are their causes and how do they influence the agriculture yields? Also suggest the measures to minimize them.
- (d) Discuss in detail the major environment impacts of mineral extraction.
- (e) Enumerate the application of solar energy in modern days. Explain the uses of solar energy for space heating of buildings.
- (f) What do you understand by the term thermal pollution? Discuss the various effects and control measures of thermal pollution.
- (g) What is ozone hole? What are the causes of ozone hole formation? Discuss the effects of ozone layer depletion and its remedial measures.
- (h) How do you define the pollution as per Water Act, 1974? Also write the salient features of this Act.

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