



Printed Pages : 7

EAS105

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

PAPER ID : 3101

Roll No.

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**B.Tech****(SEM I) ODD SEMESTER THEORY EXAMINATION 2009-10  
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, 15, and 25 marks respectively.  
Follow the instructions as given in each question.

**SECTION - A**

This question contains 10 questions of multiple choice / Fill in the blanks / True, False / Matching correct answer type questions. Attempt all parts of this section.

1 Write the correct answer of the following  $1 \times 10 = 10$   
multiple choice questions:

- (a) The part of environment where life forms of the earth, including human beings, live, is
- (i) atmosphere
  - (ii) lithosphere
  - (iii) hydrosphere
  - (iv) biosphere



- (b) The science that deals with the study of the individual organisms or an individual species is known as
- (i) anthropology
  - (ii) autecology
  - (iii) synecology
  - (iv) microbiology.
- (c) The main cause of 'eutrophication' of lakes is the enrichment of lake water with
- (i) carbonaceous organic matter
  - (ii) nutrients
  - (iii) chlorides
  - (iv) water hyacinth.

Fill in the following blanks with suitable words :

- (d) The part of atmosphere, where maximum concentration of ozone is generally found, is \_\_\_\_\_
- (e) The transfer of food energy from the source in plants through a series of organisms with repeated eating and being eaten up is referred to as \_\_\_\_\_
- (f) The unit of measurement of sound pressure level is \_\_\_\_\_



Write true or false against following statements :

- (g) Anaerobic digestion of sludge takes place in the presence of oxygen. (True/False)
- (h) Gastroenteritis is a water borne disease. (True/False)
- (i) Match List I with List II and select the correct sequence of answers using the codes given below the lists :

**List I**

**List II**

- |                       |                          |
|-----------------------|--------------------------|
| A. Carbon monoxide    | 1. Acid rain             |
| B. Carbon dioxide     | 2. Ozone layer depletion |
| C. Chlorofluorocarbon | 3. Asphyxiation          |
| D. Sulphur dioxide    | 4. Green house effect    |

Code    A    B    C    D

- |     |   |   |   |   |
|-----|---|---|---|---|
| (1) | 3 | 4 | 1 | 2 |
| (2) | 4 | 3 | 1 | 2 |
| (3) | 3 | 4 | 2 | 1 |
| (4) | 2 | 1 | 3 | 4 |

- (j) The atmosphere is divided into following four layers :
- (a) Mesosphere
- (b) Stratosphere
- (c) Thermosphere
- (d) Troposphere

The correct sequence of these layers starting from the surface of earth upwards is

A 2 4 1 3

B 4 2 1 3

C 4 2 3 1

D 2 4 3 1

### SECTION - B

2. Attempt any three parts of the following :  $5 \times 3 = 15$

- (a) Define environment. Discuss the need for public awareness for the conservation and protection of the environment.
- (b) What are the basic components of an ecosystem? Outline the concept of balanced ecosystem.
- (c) What is deforestation? Give main causes and adverse effects of deforestation.
- (d) Discuss some important issues relating to municipal solid waste management in India.
- (e) Discuss how population, poverty and pollution are inter-related to one another.



**SECTION - C**

**Note :** All questions are compulsory. **5×5=25**

Attempt any two parts from each question.

- 3 (a) What are ecological pyramids? Explain the different types of ecological pyramids giving suitable examples.
- (b) Give a brief account of environmental effects of modern agriculture.
- (c) What is Environmental Impact Assessment? Discuss its importance in planning and implementation of engineering projects.
- 4 (a) Discuss the adverse impacts of urbanization and industrialization and suggest suitable remedial measures.
- (b) Write a short note on sustainable development.
- (c) Discuss the importance of fluoride in drinking water. Briefly discuss 'Nalgonda Technique' of defluoridation of water to control the problem of fluorosis.



- 5 (a) Enumerate various types of pollutants that cause pollution of water bodies. Also discuss how water bodies can be saved from ill-effects of uncontrolled discharge of wastewater into them.
- (b) Discuss how switching over to a low carbon economy can help in our efforts towards fighting against the problem of 'global warming and climate change'.
- (c) Discuss the environmental aspects of animal husbandry.
- 6 (a) Discuss the problem of 'ozone layer depletion' and present a summary of international efforts taken up so far to address the problem.
- (b) Briefly discuss the problem of automobile pollution and suggest suitable ways and means to control it.
- (c) Discuss the role of government in environmental protection highlighting legislative and legal aspects.
- 7 (a) Explain how the initiatives taken by Non-governmental organizations are helpful in creating the public awareness and implementation of environmental protection programmes.



- (b) Discuss the importance of 'women education' for the success of the schemes relating to environmental quality management and public health.
- (c) What is rain water harvesting? Discuss its advantages and limitations.
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