

Roll No. 

Total No. of Pages : 2

Total No. of Questions : 09

**B.Tech. (AE) (Sem.-5)**  
**ENVIRONMENTAL SCIENCE**  
**Subject Code : CE-216**  
**Paper ID : [A0718]**

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION TO CANDIDATES :**

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students has to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students has to attempt any **TWO** questions.

**SECTION-A**

1. Write briefly :

- (a) What materials the various subdivisions of biosphere supply to organisms ?
- (b) What are fixed and mobile sources of air pollution? Give their examples.
- (c) List any two factors responsible for the extinction of species.
- (d) What are detrivores ? Name any two of them.
- (e) What is noise ? Sound of what intensity is harmful for our ears ?
- (f) What is zero population growth ? Name two countries which have achieved it.
- (g) Give two advantages of CNG over petrol or diesel.
- (h) Expand the terms BOD and UNESCO.
- (i) What is the environmental significance of increasing Antarctica ozone hole ?
- (j) Name different rain water harvesting methods.

**SECTION-B**

2. Explain the phenomenon of green house effect and the factors contributing to it. Discuss the possible impacts of enhanced global warming.
3. Give salient features of tropical rain forests. What are the common causes of deforestation around the world and explain the environmental impacts of deforestation ?
4. What is solid waste? Along with suitable diagram, explain the process of sanitary landfill for the disposal of municipal solid waste giving merits and demerits associated with it.
5. What are age structure diagrams or population pyramids and how they serve as useful tools for predicting the population growth ? Draw the age pyramid of a developing country and discuss how is it likely to differ from that of a developed nation.
6. How do primary pollutants differ from secondary pollutants ? Discuss the strategies and methods which can be used to control air pollution from vehicles.

**SECTION-C**

7. (a) Define energy and differentiate between conventional and non-conventional energy resources. Discuss the pros and cons of using coal as an energy resource. 6
- (b) Describe the causes and effects of 1986 Chernobyl nuclear power plant accident in the former Soviet Union. 4
8. (a) What is in situ and ex situ conservation of biodiversity. Give their examples. Enumerate the biodiversity hot spots identified in India. Name some endangered species of plants and animals of our country. 6
- (b) Write notes on any two :
  - (i) Drip irrigation and its advantages
  - (ii) Eutrophication and its consequences
  - (iii) Environmental (Protection) Act 1986 4
9. (a) What is ecological or Biotic succession? How does primary succession differ from secondary succession? Discuss the process of biotic succession on a bare rock or a pond. 6
- (b) What are Ecological or Eitonian pyramids? Along with suitable diagrams, describe the pyramid of numbers and pyramid of biomass in a grassland ecosystem. Why is the pyramid of energy always upright ? 4