

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

PAPER ID : 0903

Roll No.

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B.Tech.

(SEM. VII) ODD SEMESTER THEORY EXAMINATION

2010-11

ENVIRONMENT AND ECOLOGY

Time : 3 Hours

Total Marks : 100

Note :- Attempt *all five* questions.

1. Attempt **any four** parts of the following : (5×4=20)

- Define environment and explain its components.
- How human activities will pollute our environment? Explain.
- List the desirable limits of essential characteristics of drinking water as per IS: 10500-1991.
- Draw a conventional flow chart for surface water treatment and briefly explain functions of various units.
- Explain the process of sludge treatment and disposal.
- Write down environmental significance of dissolved oxygen in water and waste water.

Attempt **any two** parts of the following : (10×2=20)

- Give the different classifications of air pollutants? List the ambient air quality standards for air pollutants as per Central Pollution Control Board for residential area.
- How pollutants are dispersed in the atmosphere. Write its mechanism of formation of photochemical smog in the atmosphere.

- (c) Explain the function of catalytic converter used for vehicular emission control. Write importance of non point sources contributing to air pollution.
3. Attempt **any two** parts of the following: **(10×2=20)**
- (a) Describe material flow and waste generation process in the environment. Explain various factors affecting generation of solid waste.
 - (b) Describe different types of collection services employed in solid waste management system.
 - (c) Explain the effects of noise on human health. Suggest suitable measures to control noise pollution.
4. Attempt **any two** parts of the following : **(10×2=20)**
- (a) Explain the components and functions of forest ecosystem. Discuss the practical ways and means of protecting the forests in the Indian context.
 - (b) Explain the flow of energy and nutrients through an ecosystem. Discuss the human influence on nitrogen cycle.
 - (c) Elaborate on the anomalies in the distribution and utilization of water resources around the world. Discuss the ethical dilemma with dams in the Indian context.
5. Write short notes on **any four** parts of the following : **(5×4=20)**
- (a) Transport system in solid waste management system.
 - (b) Environmental audit.
 - (c) Need of fertilizers and pesticides in agriculture.
 - (d) Concept of ecological imbalances.
 - (e) Salient features of Environment (Protection) Act 1986.
 - (f) Conservation of mineral resources.