

May 2024

B.Tech. (ME (Hindi Medium) (ME/RAI)

(Second Semester)

Environment and Ecology (MCEVS-01)

Time : 3 Hours]

[Maximum Marks : 75

Note : It is compulsory to answer all the questions (1.5 marks each) of Part A in short. Answer any *four* questions from Part B in detail. Different sub-parts of a question are to be attempted adjacent to each other.

Part A

1. (a) What is the importance of environmental education ? 1.5
- (b) Discuss the components of the atmosphere. 1.5
- (c) Write about neutralism. 1.5
- (d) What are the objectives of human rights education ? 1.5
- (e) Why pyramid of energy is always upright ? 1.5
- (f) Write the names of three major biomes. 1.5

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- (g) What are estuaries ? Discuss its importance. 1.5
- (h) Why do we need to create public awareness of natural resources ? 1.5
- (i) Write about environmental movements started by Bishnoi of Rajasthan. 1.5
- (j) What is the difference between ecological niche and habitat ? 1.5

Part B

2. (a) What is the role of humans and NGOs in environment conservation ? Write about steps taken for environmental conservation. 10
- (b) Why we need to create environmental awareness among the People and students ? 5
3. (a) Explain the difference between a food chain and a food web with an example. 5
- (b) What is a population explosion ? What is the role of family welfare programs in controlling the population ? 10
4. Write short notes on the following : $5 \times 3 = 15$
- (i) Human rights and education
- (ii) Invasive Species
- (iii) Predation and parasitism.

5. (a) What is ecological succession ? Discuss in detail the process of ecological succession. 10
- (b) What is the pyramid of biomass ? explain in detail with examples. 5
6. (a) Write a short note on energy flow models including the single channel model and Y-shape model. 10
- (b) Explain in detail about the abiotic structure of the ecosystem. 5
7. (a) What is the role and function of the pond ecosystem ? 5
- (b) What are the major biomes and their types ? Discuss the structure and function of the forest ecosystem. 10