

EVEN (II) SEMESTER EXAMINATION, 2023 – 24**Ist Year, B.Tech.****ENVIRONMENTAL STUDIES****Duration: 3:00 hrs****Max Marks: 70**

Note: - Attempt all questions. All Questions carry equal marks. In case of any ambiguity or missing data, the same may be assumed and state the assumption made in the answer.

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| Q 1. | Answer any two parts of the following. a) Discuss the role of biology, chemistry, and geology in understanding and addressing environmental challenges. b) Define biodiversity and discuss its significance for ecosystem functioning and human well-being. c) Discuss the concept of natural resources and their importance for human societies. d) Provide examples of renewable and non-renewable natural resources and explain the differences between them. e) Discuss the concept of land resources and their significance for human societies. f) Provide examples of various types of land resources and explain their importance for agriculture, urban development, and environmental conservation. | 3.5x4= 14 |
| Q 2. | Answer any two parts of the following. a) Describe the components of an ecosystem and their interrelationships. b) Explain how biotic and abiotic factors interact to maintain ecosystem stability and functioning. c) Explain the concept of trophic levels in food chains and food webs. d) Discuss the relationship between producers, primary consumers, secondary consumers and tertiary consumers in energy transfer and biomass accumulation. e) Define the concept of energy flow in ecosystems and explain its significance in ecosystem functioning. f) Discuss the sources of energy in ecosystems and the pathways through which energy flows. | 3.5x4= 14 |
| Q 3. | Answer any two parts of the following. a) Explain the different components of biodiversity, including genetic diversity, species diversity, and ecosystem diversity. b) Discuss the concept of endangered and endemic species. Define these terms and explain the factors contributing to species endangerment and endemism. c) Discuss the concept of environmental pollution and its significance for human health, ecosystems, and biodiversity. | 7x2= 14 |
| Q 4. | Answer any two parts of the following. a) What is indoor air pollution? What are its sources? b) Explain the concept of energy poverty and its impact on urban populations. c) Discuss about climate change and global warming in context of recent global issues. | 7x2= 14 |
| Q 5. | Answer any two parts of the following. a) Discuss the role of the Forest Conservation Act in promoting sustainable forest management and biodiversity conservation. b) What are the major modes of transmission of HIV? Explain strategies for preventing the spread of HIV/AIDS. c) Discuss the problems affecting the women and child welfare. | 7x2= 14 |
