

END TERM EXAMINATION

FIRST SEMESTER [B.TECH.] MARCH- 2023

Paper Code: BS-109

Subject: Environmental Studies

Time: 3 Hours

Maximum Marks: 75

Note: Attempt five questions in all including Q.No.1 which is compulsory.
Select one question from each unit.

Q1 Attempt all:-

- (a) "Phosphorous is a part of the sedimentary biogeochemical cycle while oxygen is not." Justify the statement. (1)
- (b) Define mineral and mining. (3)
- (c) A sudden, uncontrollable descent of a mass of Earth down a mountain slope is known as? (1)
- (d) Coastal bays, river mouths, and tidal marshes constitute.....ecosystem. (1)
- (e) The main cause of genetic diversity is..... (1)
- (f) Which gases are responsible for global warming? (1)
- (g) Explain the concept of sustainable development. (1)
- (h) "Public awareness leads to environmental protection." Justify this statement. (2)
- (i) List four effects of acid rain on environment. (3)
- (j) Define biopiracy. (1)

UNIT-I

- Q2 (a) Define deforestation. What are its main causes? Suggest a few steps to prevent it. (1,2,2)
- (b) What are food chains and food webs? Describe the food web of a grassland ecosystem. Support your answer with a diagram. (4)
- (c) Briefly explain the pyramid of numbers of a forest ecosystem. (3)
- (d) Explain ecological succession. (3)

- Q3 (a) What is a biogeochemical cycle? Describe the carbon cycle diagrammatically. (1,2)
- (b) What is the difference between endangered and endemic species? (3)
- (c) Discuss any three threats to biodiversity. Suggest three combative methods to overcome such threats. (3,3)
- (d) What is in-situ and ex-situ conservation? (3)

UNIT-II

- Q4 (a) Write a short notes on any four of the following:- (2.5x4=10)
- i. Radiation pollution
 - ii. Vermicomposting
 - iii. Biomedical waste
 - iv. Incineration
 - v. Soil erosion

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- (b) What are primary air pollutants? Give any three examples. (1,2)
- (c) Explain any two methods to control particulate matter in air. (2)

- Q5 (a) Describe the process of wastewater treatment in detail. Draw a flow diagram to support your answer. (6,1)
- (b) How is noise classified on the basis of source? (3)
 - (c) Suggest any five measures to control noise pollution. (5)

UNIT-III

- Q6 (a) What are energy-related urban problems? How can we control them? (3)
- (b) "Rainwater harvesting is an efficient tool of water conservation". Justify this statement. (4)
 - (c) What is waste-land reclamation? Explain with suitable examples. (4)
 - (d) Explain the effect of consumerism on the environment. (4)
- Q7 (a) What do you mean by environmental ethics? What role do they play in reducing environmental hazards? (3)
- (b) Write a short note on Environmental Protection Act (1986) and Wildlife Protection Act (1971). (2,2)
 - (c) Explain the five stages of the environmental impact assessment process. (5)
 - (d) "Nuclear energy is boon as well as bane for human civilization". Explain. (3)

UNIT-IV

- Q8 (a) What are the major contributory factors to world population growth? (3)
- (b) What is the difference between HIV and AIDS? How can we prevent HIV infection? (3)
 - (c) Discuss the role of IT in environment and human health. Give some practical examples. (4)
 - (d) Describe family welfare programme in detail. (5)
- Q9 (a) Write short notes on following:- (3x2=6)
- i. Value education and the environment
 - ii. Oral Rehydration
 - (b) "Women and child welfare are very important for a sustainable environment." Discuss. (4)
 - (c) What are the objectives of Universal Declaration of Human Rights by United Nations? (2)
 - (d) Define population ageing, birth rate and growth rate. (3)
