

B.E./B.TECH. Degree Examination, December 2020

Second Semester

**GE18251 – ENVIRONMENTAL SCIENCE AND ENGINEERING**

(Regulation 2018)

Time: Three hours

Maximum: 80 Marks

Answer **ALL** questions

**PART A - (8 X 2 = 16marks)**

1. The activities of cultivation of land, timber harvesting is permitted in
  - a) Sanctuaries
  - b) National Parks
  - c) Biosphere Reserves
  - d) Protected Areas
2. Energy resources derived from natural organic materials are called
  - a) geothermal energy sources
  - b) fossil fuels
  - c) biomass
  - d) all of these
3. Which of the following fact is incorrect?
  - a) Global warming is the rise in the average temperature of the earth's climate system
  - b) Eutrophication is observed in water bodies
  - c) The greenhouse effect is a natural phenomenon
  - d) Ozone is harmless to breathe
4. The Forest (Conservation) Act extends to the whole of India except
  - a) Uttar Pradesh
  - b) Karnataka
  - c) Jammu and Kashmir
  - d) Haryana
5. What are the three classes of biodiversity?
6. How are air pollutants classified?
7. List the impacts of the depletion of Ozone Layer.
8. What do you mean by value education?

**PART B - (4 X16 = 64 marks)**

9. (a) (i) Discuss the energy flow through a desert ecosystem. **( 8 )**  
(ii) What are the major causes of man-wildlife conflicts? Discuss the remedial steps that can curb the conflict. **( 8 )**

**(OR)**

- (b) (i) Illustrate the strategy adopted to conserve biodiversity. (8)
- (ii) What are hotspots of biodiversity? On what basis a region is designated as hot spot? Explain in detail. (8)
10. (a) (i) What is Deforestation? Enumerate and discuss the various causes of deforestation. (8)
- (ii) Explain in detail the problems associated with mining. (8)

**(OR)**

- (b) (i) Analyse the consequences of overutilization of ground water. (8)
- (ii) Classify natural resources. You, as a volunteer, how will you reduce depletion of natural resources. (8)
11. (a) (i) What is Marine Pollution? What steps are essentially required to control marine pollution? (8)
- (ii) How do agro-chemicals contribute to soil pollution? What control measures are to be taken to minimize soil pollution from this source? (8)

**(OR)**

- (b) (i) Briefly describe about the disaster management principles for floods and landslides hazards (8)
- (ii) What are the various methods adopted to prevent water pollution? Discuss. (8)
12. (a) (i) Write short note on (8)
- a) Environmental protection act
- b) Rain water harvesting
- (ii) Write a detailed note on the impact of global warming and nuclear accidents on the environment. What is the role of individuals in controlling these environmental issues? (8)

**(OR)**

- (b) (i) Confer the environmental and social impacts of growing population. Explain how implementation of family planning programme can help mitigate the problems of population explosion. (8)
- (ii) Comment on the role of information technology in environment protection and human health. (8)