

ENVIRONMENTAL SCIENCE

Total Marks=200

Time – 3 hours

Answer **five** questions. (Q.No. 1 is compulsory and any four from the remaining seven questions)
The figures in the margin indicate full marks for the questions.

- 1. Answer any 10 (ten) questions** **10 x 4**
- A.** What do you mean by the term environment? What are its basic components of the environment? 2+2
- B.** Name the different layers of the atmosphere and state their characteristics. 2+2
- C.** What do you mean by environmental pollution? Mention the major categories of environmental pollution? 2+2
- D.** What is bio-magnification of pollutants? Explain with a suitable example. 2+2
- E.** Define term biodiversity. Explain with examples – the ‘species diversity’ and ‘ecosystem diversity’. 2+2
- F.** Mention at least two major characteristics each of grassland and forest ecosystems 4
- G.** What is bio-energy? What are its environmental implications? 4
- H.** Define the term natural disasters? Mention their different types. 2+2
- I.** What is Kyoto Protocol? Write briefly about its significance. 2+2
- J.** Discuss the role of the foresters in maintaining the ecological balance in forest area. 4
- K.** What is environmental engineering? How does it differ from environmental studies? 2+2
- L.** What are solid wastes? How are they classified? Give examples. 1+3
- 2. Answer any 8 (eight) questions** **8x5**
- A.** Discuss briefly the process of interactions between atmosphere and hydrosphere. 2+3
- B.** What is acid rain? Explain its effects on environment. 2+3
- C.** What is eutrophication? Discuss the environmental impact of eutrophication. 2+3
- D.** What do you mean by the term ecosystem? Name the different types of ecosystem giving examples. 2+3
- E.** What are bio-fertilizers? Discuss the advantages of application of bio-fertilizers over chemical fertilizers. 2+3
- F.** What are wastelands? Discuss briefly the methods of wasteland management. 2+3
- G.** Discuss the salient features of Wildlife Protection Act, 1972 as amended in 1991. 5
- H.** What is remote sensing? Discuss its applications in natural resource management. 1+4
- I.** What are the hotspots of biodiversity? Explain with examples – ‘in-situ and ex-situ’ conservation of biodiversity. 2+3
- J.** Discuss the environmental effects of solid wastes. 5
- 3. Answer any 5 (five) questions** **5x8**
- A.** What is noise pollution? What are the effects of noise pollution on human health? How noise pollution be controlled? 2+3+3
- B.** What are the major greenhouse gases? Discuss the consequences of their increase in the atmosphere. 2+6
- C.** What do you mean by ecological balance? Discuss its significance. 2+6
- D.** Discuss the major threats to biodiversity. 8
- E.** Discuss the suitability of watershed management in hillslopes. 8
- F.** Define wetland. Mention the different types of wetland with their environmental significance. 2+3+3
- G.** What is Geographical Information System (GIS)? Describe its application in environmental monitoring and resource utilization. 2+6

P.T.O.

4. **Answer any 4 (four) questions** **4x10**
- A. What do you mean by depletion of ozone layer? Discuss the causes and consequences of depletion of ozone layer. 3+7
- B. Explain the term bio-mass energy. Discuss its sources and environmental implications. 3+3+4
- C. Discuss the different processes of solid waste management. 10
- D. Discuss the different methods of air pollution control. 10
- E. Discuss the remedial measures that can be adopted to restore degraded landscape in a hilly region. 10
5. **Answer any 2 (two) questions** **2x20**
- A. Discuss the constitutional provisions for environmental protection in India. What are the salient features of Environmental Protection Act, 1986. 8+12
- B. What do you mean by Environmental Impact Assessment (EIA)? What are the objectives of EIA? Discuss why EIA is so important for selection of sites for industries. 5+5+10
- C. Discuss the socio-economic implications of environmental degradation in an area where people's livelihood is mainly dependent on forest resources. 20
6. **40**
- Mention the major environmental problems of the Northeast India and explain them in brief. What are your suggestions for the solution of these problems. 20+20
7. **40**
- What are renewable and non-renewable energy resources? Mention the different renewable energy sources and discuss about their advantages and disadvantages from environmental aspects. 10+10+20
8. **40**
- Discuss the concept and growth of the idea of sustainable development. Describe the various methods required to be adopted to ensure sustainability of a development project. 20+20
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