

**B.Sc Sem.-5 Examination****SE 305****Env. Science****Time : 2-30 Hours]****December-2024****[Max. Marks : 70**

**Instructions:** (1) Draw figures where necessary.  
(2) Show question number against each answer.

**Q1.** Discuss the emerging environmental challenges of the 21st century, particularly related to urbanization and industrialization in developing countries. (14)

**OR**

**Q1(A).** Analyze the relationship between population growth and environmental degradation. (07)

**Q1(B).** How do changes in the climate affect vulnerable populations differently, and what global strategies are needed to address climate justice? (07)

**Q2.** Discuss the causes and consequences of stratospheric ozone depletion. How does it affect both the environment and human health globally? (14)

**OR**

**Q2(A).** Examine the role of water resources in human development. How does water availability affect agriculture, industry and urbanization, particularly in developing countries. (07)

**Q2(B).** Examine the impact of episodic environmental events, such as hurricanes, floods, and wildfires, on ecosystems and human populations. How can societies better prepare for and mitigate the effects of these events? (07)

**Q3.** How do humans physiologically respond to various environmental stresses such as temperature extremes, air pollution, and noise? Discuss the short-term and long-term impacts on health. (14)

**OR**

**Q3(A).** Analyze the major causes of air, water, and soil pollution in industrial and urban environments. How do these pollutants affect both the environment and human health? (07)

**Q3(B).** Discuss the concept of occupational diseases. How do specific occupations, such as mining, construction, and manufacturing, increase the risk of exposure to environmental hazards? (07)

**Q4.** How do environmental surveys help identify health and safety problems in both working and living environments? Discuss the key components of such surveys and how they contribute to health maintenance. (14)

**OR**

**Q4(A).** What is the significance of demographic variations (e.g., age, gender, ethnicity) in the study of health outcomes? How can this information be used to address health disparities? (07)

(P.T.O)

**Q4(B).** How do radiological health risks differ from other types of environmental hazards (e.g., chemical or biological)? (07)

**Q5.** Attempt any **seven** out of twelve. (14)

1. Why is biodiversity conservation important for regional and global environmental stability?
  2. What is LD<sub>50</sub>?
  3. What role does deforestation play in global biodiversity loss and climate change?
  4. What is the effect of population explosion?
  5. How does ozone layer depletion impact human health and the environment?
  6. Define: Urban sprawl.
  7. How do polluted water sources affect human health and ecosystems?
  8. How does habitat destruction contribute to species extinction and biodiversity loss?
  9. What is the role of natural disasters in accelerating environmental degradation?
  10. How do pollutants like heavy metals accumulate in the food chain and impact human health?
  11. What is the significance of dose-effect relationships in understanding the toxicity of chemicals?
  12. What role does personal protective equipment (PPE) play in preventing workplace-related diseases?
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