

**MSc DEGREE END SEMESTER EXAMINATION- MARCH 2025****SEMESTER 4 : ZOOLOGY****COURSE : 21P4ZOOT14 : ENVIRONMENTAL POLLUTION AND TOXICOLOGY***(For Regular - 2023 Admission and Supplementary 2022/2021 Admissions)*

Duration : Three Hours

Max. Weights: 30

**PART A****Answer any 8 questions****Weight: 1**

1. What are the consequences of low level radiation on humans? (R, CO 4)
  2. Briefly explain the effects of PAN and MIC in nature. (U, CO 8)
  3. What is soil pollution (U, CO 3)
  4. Mention the important measurements for the study of the quality of air (U, CO 1)
  5. Comment on the selective toxicity of Malathion and Carbamate. (U, CO 8)
  6. What is soil organic carbon? (U, CO 4)
  7. Tabulate the Ambient Noise Levels (Leq) applicable in India. (R, CO 5)
  8. Classify air pollutants. (A, CO 1)
  9. Define the terms point and non-point source of water pollution (An)
  10. Differentiate alley service and backyard service? (E, CO 4)
- (1 x 8 = 8)**

**PART B****Answer any 6 questions****Weights: 2**

11. Discuss the need for constructed wetlands for the treatment of water pollution (An)
  12. Briefly explain hazardous wastes compounds in soil (Cr, CO 3)
  13. Comment on the effects of thermal pollution ? (An)
  14. Briefly explain sources of air pollution (U, CO 3)
  15. What are the management practices for handling biomedical waste? (R, CO 4)
  16. Write a critical note on 'Sentinel Organisms'. (I)
  17. Describe the causes of oil pollution? (A)
  18. Discuss the two most important sources of radioactive pollution. (E)
- (2 x 6 = 12)**

**PART C****Answer any 2 questions****Weights: 5**

19. Discuss the various hazardous waste management practices. (E, CO 3)
  20. Work environment has a significant role in the occurrence of adverse human health effects due to chemical and biological hazards. Substantiate. (An, CO 8)
  21. Explain the different advanced wastewater treatment processes along with their mode of working. (A)
  22. Explain air pollution, its monitoring and control using Delhi as an example. (E)
- (5 x 2 = 10)**

# OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Summarize the concepts of pollution	Cr	4, 8	2
CO 3	Evaluate the sources and the factors affected by soil pollution	E	3, 12, 14, 19	10
CO 4	Design the management of solid waste, the various rules in place regarding hazardous waste, biomedical and plastic waste	Cr	1, 6, 10, 15	5
CO 5	Elaborate on the concepts of noise, thermal and oil pollution	A	7	1
CO 8	Summarize occupational toxicology, toxicity testing and biomonitoring of toxic chemicals	U	2, 5, 20	7

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;