

**M. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2024****SEMESTER 4 - ZOOLOGY****COURSE : 21P4ZOOT14 - ENVIRONMENTAL POLLUTION AND TOXICOLOGY***(For Regular - 2022 Admission and Supplementary - 2021 Admission)*

Duration : Three Hours

Max. Weights: 30

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

1. Differentiate graded response and quantal response. (U)
  2. Define 'electrodialysis'. (U, CO 2)
  3. What are the social implications of nuclear accidents? (R, CO 4)
  4. What is soil organic carbon? (U, CO 4)
  5. Classify air pollution. (A, CO 1)
  6. Give the broad classification of pollution. (E, CO 1)
  7. Define Available Water Capacity. (U, CO 4)
  8. Differentiate alley service and backyard service? (E, CO 4)
  9. What are the different categories of TLV? (An, CO 8)
  10. Define Amplitude of a soundwave? (E)
- (1 x 8 = 8)**

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

11. Comment on the various adverse effects of radioactive pollution. (An, CO 5)
  12. Explain the Phase I reactions involved in the biotransformation of xenobiotics. (U, CO 8)
  13. Write a short note on physical properties of Solid wastes. (U, CO 4)
  14. Differentiate between activated sludge process and trickling bed filter. (An)
  15. Comment on the effects of thermal pollution? (An)
  16. Write a short account on soil enzymes. (U, CO 3)
  17. Evaluate the cause of Mumbai oil spill? (E)
  18. Write a notes on major air pollutants. (U, CO 2)
- (2 x 6 = 12)**

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

19. Explain methods for plastic and e-waste management. (R, CO 4)
20. Comment on different methods for air pollution monitoring. (U)
21. Discuss how biotransformation of xenobiotics takes place in human body. (E, CO 8)
22. Write a notes on waterborne and water related diseases. (E, CO 2)

**(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	5, 6	2
CO 2	Examine the air and water pollution	E	2, 18, 22	8
CO 3	Evaluate the sources and the factors affected by soil pollution	E	16	2
CO 4	Design the management of solid waste, the various rules in place regarding hazardous waste, biomedical and plastic waste	Cr	3, 4, 7, 8, 13, 19	11
CO 5	Elaborate on the concepts of noise, thermal and oil pollution	A	11	2
CO 8	Summarize occupational toxicology, toxicity testing and biomonitoring of toxic chemicals	U	9, 12, 21	8

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