

MSc DEGREE END SEMESTER EXAMINATION - OCTOBER 2024
SEMESTER 3 : ENVIRONMENTAL SCIENCE
COURSE : 21P3EVST09 : 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 is air pollution? (U, CO 1, CO 2)
2. Comment on domestic sources of water pollution. (U, CO 1, CO 3)
3. Define the terms toxin and toxicants. (R, CO 1, CO 5)
4. List out various absorbing solutions that are used in removing SO₂ from gas streams. (U, CO 3)
5. Enumerate the effects of soil pollution? (U, CO 1, CO 2)
6. Define particulate matter. (U, CO 3)
7. What is thermal pollution? Mention two sources of thermal pollution. (U)
8. Mention the dose limit fixed for the workers of nuclear installations? (U)
9. What is soil bulk density? (U, CO 3)
10. Differentiate incineration and pyrolysis. (U, CO 3)
(1 x 8 = 8)

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

11. Briefly discuss the quantities and characteristic of MSW. (An, CO 3)
12. Explain secondary treatment. (A, CO 1, CO 3)
13. Comment on the adverse effects of thermal pollution on the aquatic life with examples. (R, CO 3, CO 4)
14. What is occupational toxicology? Why is it required? (R, CO 1, CO 5)
15. Considering the pros and cons of nuclear power plants, substantiate your opinion on establishing more nuclear plants in India. (An)
16. Comment on bioremediation? Describe briefly on biodegradation of pesticides. (A, CO 1, CO 5)
17. Briefly explain control of gaseous emissions by combustion method. (An, CO 3)
18. Discuss on the sources of soil pollution in highlands of Kerala with a specific case study. (A, CO 3)
(2 x 6 = 12)

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

19. Elaborate control of air pollution. (A, CO 3)
20. Write an essay on Primary and secondary treatment of waste water. (A, CO 1, CO 3)
21. Elaborate on the impacts of soil pollution. (An, CO 3)
22. Discuss elaborately composting of MSW. (A, CO 3)
(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Identify the sources of pollution.	U	1, 2, 3, 5, 12, 14, 16, 20	15
CO 2	Understand the concepts involved in pollution control technologies.	U	1, 5	2
CO 3	Evaluate methods of regulating, controlling and attenuating pollution.	U	2, 4, 6, 9, 10, 11, 12, 13, 17, 18, 19, 20, 21, 22	35
CO 4	Develop knowledge of the environmental toxicants and their effects.	U	13	2
CO 5	Illustrate methods of purification of sewage water and recycling / reuse of solid waste. .	An	3, 14, 16	5

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