

MSc Sem.-2 Examination**409****Env. Science****May-2025****Time : 2-30 Hours]****[Max. Marks : 70**

Instructions: All Questions carry equal marks
Attempt all Questions

Q I. Describe different types of soil pollutants and their effects on the environment. (14 marks)

OR

Q I A. Discuss industrial waste and radioactive waste as major sources of soil pollution. (7 marks)

Q I B. How can soil pollution be prevented and controlled effectively? (7 marks)

Q II. Explain the complete process of soil sampling, including equipment selection. (14 marks)

OR

Q II A. Describe how soil monitoring approaches vary with climatic conditions. (7 marks)

Q II B. Explain the role of physical and chemical parameters in assessing soil pollution. (7 marks)

Q III. Discuss the sources and effects of noise pollution on human health. (14 marks)

OR

Q III A. Write a note on noise control technologies. (7 marks)

Q III B. How is noise measured? Explain noise indices with examples. (7 marks)

Q IV. Explain the concept of ionizing radiation. Describe its impacts on plants and animals. (14 marks)

OR

Q IV A. What are the units of radioactivity? How is toxic dose measured? (7 marks)

Q IV B. List and explain any three radioactive processes in use. (7 marks)

Q V. Attempt any 7 out of 12 (2 marks each)

(One- or Two-line answer / Fill in the blanks / True or False)

1. Name two common sources of noise pollution.
2. True or False: Urban waste contributes to soil contamination.
3. Fill in the blank: Radioactive pollution can be caused by _____ rays.
4. Mention any two soil sampling equipment.
5. What is the difference between alpha and gamma radiation in terms of penetration power?
6. Write any two effects of noise pollution on human health.
7. Why is it important to analyze soil pH during contamination studies?

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8. Fill in the blank: _____ is the most common radioactive element used in cancer treatment.
 9. What is Equivalent Continuous Noise Level (Leq), and why is it important?
 10. What is the importance of radionuclide half-life in pollution studies?
 11. State one key limitation of using only physico-chemical analysis in soil monitoring.
 12. Define acoustic shadow and give one environmental example.
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