

## M.Sc Semester-2 Examination

409

Toxicology

April-2024

Time : 2-30 Hours]

[Max. Marks : 70

- Q.1A What are the sources of pollution? Explain 7
- Q.1B Write a note on Environmental contaminants. 7
- OR
- Q.1A What is the difference between bioaccumulation and bio magnification? 7
- Q.1B Write a note on pollution. 7
- Q.2 A What are the impact on water, food and air in Environmental Toxicology? 7
- Q.2 B Describe different types of mutations in detail. 7
- OR
- Q.2 A Describe cancer progression based on molecular and cellular level in body. 7
- Q.2 B Write a note Air & Water pollution. 7
- Q.3 A Describe the mechanisms through which arsenic exerts its toxic effects on human health, including its modes of entry into the body and its physiological targets. 7
- Q.3 B What are the primary sources of mercury in industrial settings, and how do these sources contribute to environmental contamination and human exposure? 7
- OR
- Q.3 A What measures can be implemented in industrial settings to mitigate the risks associated with carbon monoxide exposure for workers and surrounding communities? 7
- Q.3 B Discuss the potential long-term health impacts associated with chronic exposure to lead in industrial environments, highlighting specific diseases or conditions linked to lead toxicity. 7
- Q.4 A Make a short note on process of caner formation 7
- Q.4 B Write a note on type of UV Rays 7
- OR
- Q.4 A What are the different types of chemical carcinogens and co-carcinogens? Give examples, how this carcinogen induces cancer? 7
- Q.4 B Describe classification of carcinogen by international agency for research on cancer (IARC). 7

(P.T.O.)

**Q.5 Answer the Following Short Questions (Any 7)**

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- 1 What are the effluent discharges are type of which source?
  - 2 What is Bio magnification?
  - 3 Define contaminant
  - 4 What is bioaccumulation?
  - 5 Give the difference between occupational disease and work-related disease.
  - 6 What are the possible physical hazards of light and radiation?
  - 7 Explain exposure to infection and parasite agents through biological hazards.
  - 8 What are oncogene and Tumor suppressor genes?
  - 9 Name any two pathways that are dysregulated in cancer?
  - 10 What is carcinogen?
  - 11 Give 3 examples of tumor suppressor genes.
  - 12 Give the name of DNA damage repair pathways.
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