

M.SC(Envi.) Semester – 2 (CBCS) Examination**March/April - 2025****Air and Water Pollution (Core)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Que-1 Answer the following (any seven out of eight, each of two marks) (14)

- 1) Define pollution and pollutant with examples.
- 2) Mention any two greenhouse gases and their sources.
- 3) What is temperature lapse rate in meteorology?
- 4) What is meant by sampling of air pollutants?
- 5) Define water pollution with examples.
- 6) Mention any two major sources of water pollutants.
- 7) What is the difference between primary and secondary wastewater treatment?
- 8) What is the role of biological systems in water treatment?

Que-2 Write short note (any two) (14)

- 1) Describe the classification, origin, and properties of air pollutants.
- 2) Explain the greenhouse effect and global warming along with control measures.
- 3) Explain the role of CFCs in ozone depletion and describe international efforts to control them.

Que-3 Answer the following (any two) (14)

- 1) Describe the influence of meteorological parameters (lapse rate, wind velocity, turbulence) on air pollution dispersion.
- 2) Explain the methods and instruments used for sampling and measuring air pollutants
- 3) Describe in detail various control methods and equipment used for reducing air pollution.

Que-4 Answer the following (any two) (14)

- 1) Explain the types, sources, and effects of freshwater pollution.
- 2) Discuss the concept, causes, and consequences of thermal pollution.
- 3) What are the long-term effects of thermal pollution and how can it be prevented?

Que-5 Write short note (any two) (14)

- 1) Explain the different stages of wastewater treatment: preliminary, primary, secondary, and tertiary
- 2) Describe the advanced biological systems used in wastewater treatment.
- 3) Write a detailed note on purification of water and removal of dissolved solids.
