Roll No. .....

Total Pages : 03

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May 2026

M.Sc. (Microbiology) (Second Semester)

Environmental Pollution and Human Health

(VAC-306-V)

*Time : 3 Hours*] [*Maximum Marks : 75*

**Note :** It is compulsory to answer all the questions (1.5 marks each) of Part A in short. Answer any *four* questions from Part B in detail. Different sub-parts of a question are to be attempted adjacent to each other.

## Part A

1. (a) What is radioactivity and its measuring units ? **1.5**

(b) Which agency has given drinking water quality standards ? **1.5**

(c) Why are air quality standards important ? **1.5**

(d) Name of major indoor air pollutants. **1.5**

(e) What is the air quality index, and explain its importance. **1.5**

(f) Explain in detail biomagnification. 1.5

(g) Define DO, BOD, and COD with examples ? 1.5

(h) Why is the implementation of CNG important in the NCT of Delhi ? 1.5

(i) Write the names of four waterborne diseases 1.5

(j) What is the role of bio-scrubbers in controlling water pollution ? 1.5

## Part B

2. (a) Discuss the following in detail : 2×4=8

(i) Organometallic Compounds

(ii) Control Strategies of Soil Pollution

(b) Define solubility. Which factors play an important role in the solubility and transportation of pollutants ? 7

3. (a) Write a short note on indoor air pollution. 5

(b) Discuss in detail the radioactive pollution and its sources, impact, and control measures. 10



4. Write short notes on the following : 3×5=15

(i) Thermal Pollution and its effects

(ii) Eutrophication and its impact on the aquatic system

(iii) Coral Bleaching and Reef Degradation

5. (a) Explain about oil spills and their toxic effects. 5

(b) Discuss in detail about : 5×2=10

(i) Bio-scrubbers

(ii) Bioaccumulation

6. (a) Write short notes on the following : 5×2=10

(i) Activated Sludge Process

(ii) Trickling Filters

(b) Discuss in detail the Ganga Action Plan 5

7. (a) Explain in detail about Marine pollution and its sources, impacts, toxicity, and remediation technologies. 10

(b) Discuss in detail the Upflow Anaerobic Sludge Blanket (UASB) reactor. 5

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