

24P218

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Name :

Reg. No :

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2025

(CBCSS-PG)

(Regular/Supplementary/Improvement)

CC19P ESC2 C08 - ENVIRONMENTAL MICROBIOLOGY AND BIOTECHNOLOGY

(Environmental Science)

(2019 Admission onwards)

Time: 3 Hours

Maximum: 30 Weightage

Part-A

Answer any *four* questions. Each question carries 2 weightage.

1. Discuss the use of G + C content in Taxonomy.
2. What are pure cultures, and why are they important?
3. What are point and nonpoint pollution? Give examples.
4. What are the advantages of nutrient film technique?
5. How do oil spills affect land?
6. What is bioventing?
7. Describe the working principle of a biosensor.

(4 × 2 = 8 Weightage)

Part-B

Answer any *four* questions. Each question carries 3 weightage.

8. Describe a typical protozoan.
9. Why do microorganisms need organic compounds? Explain.
10. Explain the techniques employed to make genetic changes in a microorganism.
11. Explain the factors affecting rate of biodegradation of pesticides.
12. What is UASB reactor? Explain.
13. What are the environmental issues in leather industry.
14. What are the advantages of vermicomposting over conventional composting?

(4 × 3 = 12 Weightage)

Part-C

Answer any *two* questions. Each question carries 5 weightage.

15. Write a detailed note on soil microorganisms associated with plants.

16. Describe the application of biotechnology in agricultural industry.
17. Write a note on phytoreactors.
18. What is the role of biotechnology in pollution control? Explain.

(2 × 5 = 10 Weightage)
