

21P218

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Name: .....

Reg.No: .....

**SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2022**

(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. Why is it necessary to determine the culture characteristics of microorganisms?
2. How can we evaluate the safety of GEM - produced food substances?
3. How does activated sludge process work?
4. What are the advantages of nutrient film technique?
5. List the major components of municipal solid waste (MSW).
6. How does oil decompose?
7. What is BOD biosensor?

**(4 × 2 = 8 Weightage)**

**Part-B**

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

8. What are phylogenetic and phenetic classification systems? How do the two systems differ?
9. Explain the concept of indicator organisms in Environmental Microbiology.
10. Discuss the main steps in a phosphorus cycle.
11. Discuss the environmental hazards of petroleum refineries.
12. Define micropropagation. What is the importance of micropropagation?
13. What are biodegradable plastics? List out the different types of biodegradable plastics.
14. Differentiate biostimulation and bioaugmentation.

**(4 × 3 = 12 Weightage)**

### Part-C

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

15. Explain the reproduction in fungi.
16. What steps are usually taken to purify drinking water? Explain.
17. What is the role of microorganisms in Ecosystem? Explain with examples.
18. What is the role of biotechnology in pollution control? Explain.

**(2 × 5 = 10 Weightage)**

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