

2023

**4th Semester Examination**  
**MICROBIOLOGY (Honours)**

**Paper : C 9-T**

**[Environmental Microbiology]**

**[CBCS]**

Full Marks : 40

Time : Two Hours

*The figures in the margin indicate full marks.  
Candidates are required to give their answers  
in their own words as far as practicable.*

**Group - A**

Answer any *five* questions.

2×5=10

1. What is lentic ecosystem? 2
2. What is meant by Piezophiles? 2
3. State the microbial interaction of commensalism. 2
4. State the symbiotic relationship between a plant and a microbe. 2
5. What is ammonification? 2
6. Mention the name of two oil-consuming bacteria. 2
7. What is Trickling Filter? 2

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( 2 )

8. Mention the basic tests used for the detection of coliform bacteria in water. 2

### Group - B

Answer any *four* questions.  $5 \times 4 = 20$

9. Write a short note on microbial adaptation in marine environment. 5
10. Discuss about the decomposition of plant organic matter. 5
11. Write short note on role of microorganisms in Nitrogen Cycle. 5
12. Write short note on : parasitism, chitin degradation.  $2\frac{1}{2} + 2\frac{1}{2}$
13. Discuss briefly about microbial biodegradation of pesticides. 5
14. How BOD is related with water quality? Write the differences between BOD and COD.  $2\frac{1}{2} + 2\frac{1}{2}$

### Group - C

Answer any *one* question.  $10 \times 1 = 10$

15. Discuss in detail about municipal wastewater treatment. What is potability of water? How it is determined?  $6 + 2 + 2$
16. Discuss in detail about composting and sanitary landfill technique for solid waste disposal.  $6 + 4$
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