

2025

M.Sc. 3rd Semester Examination

MICROBIOLOGY

Paper : MCB - 304

(Environmental Microbiology)

(Old Syllabus)

Full Marks : 50

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 *four* questions.

2×4=8

1. Write the example of one soilborne and one waterborne human disease.
2. What is Biomagnifications?
3. What is VAM?
4. What is difference between bioaugmentation and biostimulation?
5. What is Enrichment medium? Give an example.
6. Define eutrophication and its effect on aquatic ecosystem.

P.T.O.

(2)

Group - B

Answer any *four* questions.

4×4=16

7. What is bioleaching and explain its application in metal extraction and recovery? 2+2
8. Describe the mechanism of Biomagnification and its impact on human health and the environment. 2+2
9. Write any four modes of disease transmitted in human body with example. 1+1+1+1
10. State the advantages of biodiesel. Differentiate between the properties of conventional petrodiesel and Biodiesel. 2+2
11. Write the process of copper extraction with the help of Bioleaching process.
12. What is Bioventing and write the process of Bioventing? 1+3

Group - C

Answer any *two* questions.

8×2=16

13. Discuss about Waste water treatment process.
14. Write are biohazards. Explain the "level 1" and "level 2" of Biohazards with microorganisms. 1+7
15. How use TNT in Bioremediation process? How microorganisms used for Biodiesel production? 4+4

(3)

16. Write the modes of transmission and prevention of air-borne human disease. Name three air-borne disease with their respective causal organisms. 'Air is not a natural habitat for microorganisms' — Explain the theory.

4+3+3

Internal Assessment : 10 marks
