



K23U 2372

Reg. No. :

Name :

V Semester B.Sc. Degree (CBCSS – O.B.E.-Regular/Supplementary/
Improvement) Examination, November 2023

(2019 – 2021 Admissions)

CORE COURSE IN MICROBIOLOGY

5B09 MCB : Environmental Microbiology

Time : 3 Hours

Max. Marks : 40

SECTION – A

Answer **all** questions in **one** or **two** sentences. **Each** question carries **1** mark. (6×1=6)

1. Polychlorinated biphenyls.
2. Droplet nuclei.
3. Azotobacter.
4. Ammensalism.
5. Benthic zone.
6. Predation.

SECTION – B

Write briefly on **any six** of the following. **Each** carries **2** marks. (6×2=12)

7. Define symbiotic nitrogen fixation.
8. Antibiosis.
9. Define algal bloom.
10. Define ammonification. Give examples for ammonifying bacteria.
11. Nitrogenase enzyme.

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12. BOD.
13. Limnology.
14. What is meant by recalcitrance ?

SECTION – C

Write short essay on **any four** of the following. **Each** question carries **3** marks. (4×3=12)

15. Write an essay on various types of interactions between micro-organisms.
16. Recalcitrant halocarbons.
17. What is biofilm ? Write the steps involved in biofilm formation.
18. Phosphorus cycle.
19. Factors affecting aquatic microflora.
20. Estuarine microflora.

SECTION – D

Write essays on **any two** of the following. **Each** question carries **5** marks. (2×5=10)

21. Discuss various sources of micro-organisms in air. Add a note on methods used for enumeration of air microflora.
22. Write an essay on degradation of xenobiotic compounds by micro-organisms.
23. Explain in detail the role of micro-organisms in nitrogen cycle.
24. What is meant by bioleaching ? Discuss the role of micro-organisms.