K22U 2327

Reg. No. : .....

Name : .....

V Semester B.Sc. Degree (CBCSS-OBE-Regular/Supplementary/ Improvement) Examination, November 2022
(2019 Admission Onwards)
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.

1. Benthic zone
2. *Rhizobium*
3. DDT
4. Aerosol
5. Super bug
6. *Bdellovibrio.* **(6×1=6)**

SECTION – B

Write briefly on **any six** of the following. **Each** question carries **2** marks.

7. What is corrosion ? What is the role of microbes in corrosion ?
8. What is the mechanism of denitrification ?
9. Write the different methods of leaching.
10. What are the zones present in an aquatic environment based on light penetration ?
11. Write the mechanism of petroleum degradation by microbes.

P.T.O.

12. What is antibiosis ?

13. What is mycorrhiza and write its types.

14. Degradation mechanism of dioxin by microbes. **(6×2=12)**

SECTION – C

Write short essay on **any four** of the following. **Each** question carries **3** marks.

15. Write about the trophic levels and energy flow in an ecosystem.

16. What are the different sampling devices used for the air sampling procedure ?

17. What is synergism ? Explain with examples.

18. Notes on distribution of microorganisms in aquatic environment.

19. What is biomagnification ? Explain with example.

20. What is biofilm ? Write the steps involved in formation of biofilm. **(4×3=12)**

SECTION – D

Write essays on **any two** of the following. **Each** question carries **5** marks.

21. Give detailed account on different biogeochemical cycles.

22. Explain different microbial interactions with suitable examples.

23. Describe the factors which affect the microbial growth in an aquatic environment.

24. Write about xenobiotic compound degradation by microbes. **(2×5=10)**
