



K18U 1482

Reg. No. : .....

Name : .....

V Semester B.Sc. Degree (CBCSS – Reg. / Sup. / Imp.)

Examination, November 2018

(2014 Admn. Onwards)

Core Course in Microbiology (Elective)

5B09 MCB : ENVIRONMENTAL MICROBIOLOGY

Time : 3 Hours

Max. Marks : 40

SECTION – A

Answer **all** the **four** questions.

1. Name the enzyme involved in nitrogen fixation.
2. The interaction in which both the organisms are benefited is called \_\_\_\_\_
3. Degradation of substances in a polluted site by the employing of microbes is called \_\_\_\_\_
4. Give an example for a chemical that can undergo biomagnification. (4 × 1 = 4)

SECTION – B

Answer very briefly on **any seven** questions out of ten.

Comment on the following :

5. Food chain
6. Denitrification
7. Ammensalism
8. Droplet nuclei

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9. Sources of microorganism in air
10. Free living nitrogen fixers
11. *Pseudomonas putida*
12. Oxidative sulfur transformation
13. Bio-magnification
14. Biofilms.

(7×2=14)

SECTION – C

Answer **any four** questions out of six briefly.

15. What are the positive interactions that exist between microbes ? Explain.
16. Write on microbial degradation of hydrocarbons.
17. What are the physical factors affecting aquatic life ?
18. Explain the steps and role of microbes in phosphorous cycle.
19. Briefly explain Microbial leaching.
20. Microbiota of marine ecosystem.

(4×3=12)

SECTION – D

Answer **any two** questions out of four.

21. Define xenobiotics. Discuss the role of microorganisms in the management of xenobiotics.
22. Explain carbon cycle in detail.
23. Describe various air sampling methods.
24. Brief account on ecosystem and energy flow in ecosystem.

(2×5=10)