



Reg. No. :

Name:

V Semester B.Sc. Degree (CBCSS-Reg./Sup./Imp.) Examination, November 2020 (2014 Admn. Onwards) CORE COURSE IN MICROBIOLOGY 5B09 MCB Environmental Microbiology

Time: 3 Hours Max. Marks: 40

SECTION - A

(Answer all the four questions)

- 1. The process in which one microbe produce some substance which affects the growth and viability of another microbe is called _____
- 2. Microorganisms living in high pressure environments are called ______
- 3. Name the genetically modified bacterium that has the capacity to degrade multiple types of hydrocarbons.
- 4. Name a symbiotic nitrogen fixing bacteria.

 $(4 \times 1 = 4)$

SECTION - B

(Answer very briefly on any seven questions out of ten)

Comment on the following.

- 5. Biogeochemical cycle.
- 6. Predation.
- 7. Estuarine microbes.
- 8. Biomagnification.
- 9. Food web.
- 10. Infectious dust.
- 11. Thiobacillus thiooxidans.
- 12. Ammonification.
- 13. Microbial leaching
- 14. Super bug.

 $(7 \times 2 = 14)$

P.T.O.



SECTION - C

(Answer any four questions out of six briefly)

- 15. Bioremediation.
- 16. Comment on energy flow in ecosystem.
- 17. Carbon cycle.
- 18. Write briefly about the methods used for microbiological sampling of air.
- 19. What are the factors influencing microbial growth and distribution in aquatic environment?
- 20. Comment on bio-films and its significance.

 $(4 \times 3 = 12)$

SECTION - D

(Answer any two questions out of four).

- 21. Write an essay on soil microbial interactions with proper examples.
- 22. Explain nitrogen cycle.
- 23. Comment on microbiology of xenobiotics.
- 24. Discuss the distribution and role of microorganisms in various aquatic ecosystems. (2×5=10)