

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.

 $(7 \times 2 = 14)$

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- Schizosaccharomyces.
- 11. Distinguish positive strand and negative strand RNA viruses.
- 12. Reverse transcription.
- 13. Simple matching coefficient.
- 14. Ribotyping.

 $(7 \times 2 = 14)$

SECTION - C

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

- 15. Five kingdom classification.
- 16. Molecular characteristics used for microbial classification.
- 17. Phylogenetic tree.
- 18. Classification of plant viruses.
- 19. Archaeobacteria.
- 20. General characteristics of major divisions of algae.

 $(4 \times 3 = 12)$

SECTION - D

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

- 21. Write a note on classification of protozoa.
- 22. Discuss the differentiating characteristics of major groups of Proteobacteria.
- 23. Discuss the characteristics and classification of animal viruses.
- 24. Describe the various criteria used for classification of microorganisms under phenetic system. (2×5=10)