K17U 1702

Reg.	No.		***	 	 	8 12 M	 	 	
Name	:	 		 n n n	 		 	 	

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

Examination, November 2017

(2014 Admn. Onwards)

CORE COURSE IN MICROBIOLOGY

5B09 MCB: Environmental Microbiology (Elective)

Time: 3 Hours Max. Marks: 40

Instruction: Answers are to be written only in English.

SECTION - A

Answer all the four questions:

- 1. The interaction between two species in which one species benefits and the other remain neutral is known as _____
- 2. Morphological form of Rhizobium seen in root nodules of leguminous plants
- 3. Specialized cells present in the trichome of cyanobacteria that are the sites of N₂ fixation
- 4. Microbial inhabitants of the bottom region of a water body are _____ (4×1=4)

SECTION-B

Answer very briefly on any seven questions out of ten:

- 5. Droplet nuclei.
- 6. Denitrification.
- 7. Write briefly on Thiobacillus thiooxidans.
- 8. Eutrophication.
- 9. Antagonism.

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- 10. What is biogeochemical cycling?
- 11. Bio remediation.
- 12. Role of microbes in aquatic ecosystems.
- 13. Global warming.
- 14. How free living bacteria involved in N₂ fixation?

 $(7 \times 2 = 14)$

SECTION-C

Answer any four questions out of six briefly:

- 15. Microbes involved in bioleaching.
- 16. Explain Ammensalism with examples.
- 17. Bio-degradation of Xenobiotics.
- 18. Microbial films.
- 19. Explain the symbiotic relationship between microorganisms in soil.
- 20. Microbes in fresh water environment.

 $(4 \times 3 = 12)$

SECTION - D

Answer any two questions out of four:

- 21. Explain the importance of Carbon cycle.
- 22. Explain various methods of Sampling of Air.
- 23. Write a note on process of Bioleaching.
- 24. Describe Symbiotic N₂ fixation in detail.

 $(2 \times 5 = 10)$