K21U 3617

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Name	:	 							 			

II Semester B.Sc. Degree (CBCSS – Supple.) Examination, April 2021 (2014 – 2018 Admission) CORE COURSE IN MICROBIOLOGY 2B02 MCB: Microbial Taxonomy

Time: 3 Hours

Max. Marks: 40

Instruction: Draw diagrams wherever necessary.

SECTION - A

Answer all questions. Each question carries 1 mark.

- 1. The nature of genetic material of T4 phages is
- 2. The shells of diatoms are called
- 3. The compact masses of hyphae produced to survive the winter by some filamentous fungi are called
- 4. Short, conserved nucleotide sequences in SSU rRNAs that are specific for phylogenetically defined groups of organisms are called (4×1=4)

SECTION - B

Answer any seven questions. Each question carries 2 marks.

Comment on the following:

- 5. Distinguish photoautotrophs and chemoautotrophs.
- 6. Dendrogram.
- 7. Crenarcheota.
- 8. Purple non-sulfur bacteria.
- 9. Protists.
- 10. Coenocytic hyphae.
- 11. Glomeromycetes.
- 12. Zooflagellates.
- 13. Icosahedral capsid.
- 14. Phaeophycophyta.

 $(7 \times 2 = 14)$

K21U 3617



SECTION - C

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

- 15. Numerical taxonomy.
- 16. Bergey's manual of systematic bacteriology.
- 17. Actinomycetes.
- 18. Classification of protozoa.
- 19. Classification of bacteriophages.
- 20. Dinoflagellates.

 $(4 \times 3 = 12)$

SECTION - D

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

- 21. Write a note on criteria used for classification of micro-organisms.
- 22. Discuss the characteristics and classification of plant viruses.
- 23. Discuss the difference between Archaeobacteria and Eubacteria. Give an account of different groups of Archaeobacteria.
- 24. Describe general characteristics of fungi. Add a note on classification of $(2 \times 5 = 10)$