K25U 3354

Reg. No. : .....

Name : .....

First Semester B.Sc. Degree (CBCSS – OBE – Supplementary) Examination, November 2025
(2019 to 2023 Admissions)
COMPLEMENTARY ELECTIVE COURSE IN BOTANY
1C01BOT : Microbiology, Phycology, Mycology and Lichenology

Time : 3 Hours Max. Marks : 40

Instruction : *Draw diagrams* ***wherever*** *specified.*

PART – A

Short answer questions. Answer **all**. **(4×1=4)**

1. Rod shaped bacteria are called
   a) Bacillus b) Coccus c) Spirillum d) Pili
2. In holocarpic fungi, reproductive structure is formed from which part of the mycelium ?
   a) Whole b) A major part
   c) Half portion d) A very small portion
3. Reserved food in Rhodophyceae
   a) Starch b) Oils c) Laminarin d) Floridean starch
4. A blue green alga with cells arranged in beadlike chains
   a) *Chara* b) *Nostoc* c) *Sargassum* d) *Oscillatoria*

PART – B

Answer **any eight**. **(8×2=16)**

5. Give any four differences between prokaryotes and eukaryotes.
6. What is hormogonia ?
7. Distinguish between macrandrous and nannandrous forms in *Oedogonium*.

P.T.O.

8. What are pyrenoids ?
9. Illustrate male conceptacle of *Sargassum*.
10. What is an algal bloom ?
11. Write a note on cystocarp.
12. What is coenozygote ?
13. Write four differences between gram positive and gram negative bacteria.
14. Write the classification of lichen based on partner fungi.
15. Describe the apothecium of *Usnea*.
16. Comment on the living and non-living nature of viruses.

PART – C

Answer **any four**. **(4×3=12)**

17. Differentiate between homothallism and heterothallism.
18. Differentiate between akinetes and heterocyst.
19. Explain the morphology of *Sargassum* thallus.
20. Write a note on the structure of sex organs in *chara* with a neat labelled diagram.
21. Write a brief note on economic importance of lichens.
22. Describe the various spores related to asexual reproduction in fungi.

PART – D

Answer **any one**. **(1×8=8)**

23. Explain the lifecycle of *polysiphonia* with suitable diagrams.
24. Comment on economic importance of microbes.
25. Describe the lifecycle of *rhizopus* with suitable diagrams.

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