



K22U 3407

Reg. No. : .....

Name : .....

I Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/  
Improvement) Examination, November 2022  
(2019 Admission Onwards)

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)

- Spherical or bean shaped bacteria are called  
a) bacillus      b) coccus      c) spirillum      d) pili
- Fungi are always  
a) parasitic      b) saprophytic      c) autotrophic      d) heterotrophic
- Reserved food in Rhodophyceae is  
a) starch      b) oils      c) laminarin      d) floridean starch
- An ascocarp that is globose in shape and completely enclosed by peridium lacking ostiole is  
a) apothecium      b) cleistothecium      c) perithecium      d) epithecium

PART – B

Answer **any eight**.

(8×2=16)

- Write a short note on Gram staining of bacteria.
- What is a heterocyst ? What is its function ?
- Distinguish between scalariform conjugation and lateral conjugation.

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- Summarize different pigments seen in algae.
- Give an illustration of the female conceptacle in *Sargassum*.
- What are Pyrenoids ? Give example.
- Comment on the classification of algae by Fritsch.
- Differentiate between sclerotia and rhizomorph.
- Write four differences between prokaryotes and eukaryotes.
- What are fruticose lichen ? Give example.
- Describe the internal structure of *Usnea*.
- Outline the six kingdom classification proposed by Carl Woese.

PART – C

Answer **any four**.

(4×3=12)

- Differentiate between ascocarp and basidiocarp.
- Outline general characters of phaeophyceae.
- The lifecycle of *Polysiphonia* is triphasic. Discuss.
- Draw a neat labelled diagram of sex organs in *Chara*.
- Write a brief note on economic importance of lichens.
- Give a detailed account on fungal cell wall.

PART – D

Answer **any one**.

(1×8=8)

- Describe the lifecycle of *Puccinia*.
- Discuss the economic importance of microbes.
- Comment on the thallus variation in algae.