

Reg. No. :

Name :

Third Semester B.Sc. Degree Examination, March 2022

First Degree Programme under CBCSS

Botany

Core Course

**BO 1341 : MICROBIOLOGY, PHYCOLOGY, MYCOLOGY, LICHENOLOGY
AND PLANT PATHOLOGY**

(2019 & 2020 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in a word or **one** or **two** sentences. **Each** question carries **1** mark. Draw diagrams only if specified in the question.

1. What is mycoplasma?
2. Define coenobium.
3. What is frustule?
4. Name the source of Agar.
5. What are pyrenoids?
6. Define dolipore septum.
7. Name any two edible mushrooms.

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8. What is hymenium?
9. Mention the alternate host of *Puccinia graminis tritici*.
10. Name a fruticose lichen.

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions. **Each** question carries **2** marks. Answer not to exceed one paragraph.

11. Mention the significance of microbes in nitrogen cycle.
12. Write the characteristics of Actinomycetes.
13. Comment on the genetic material of TMV.
14. Differentiate globule and nucleole.
15. What is red-tide?
16. Mention any two medicinal importance of algae.
17. Differentiate receptacle and conceptacle.
18. What is stroma?
19. Why Deuteromycotina is called as 'Fungi imperfecti'?
20. What is the significance of clamp connection?
21. Comment on crozier formation and its significance.
22. Mention the spores in the life cycle of *Puccinia graminis tritici*.

23. Describe the structure of *Peziza apothecium*.
24. Mention any four economic importance of lichens.
25. Explain the classification of bacteria based on morphology.
26. Give a brief note on economic importance of bacteria.

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** of the following. (Answer not to exceed **120** words). **Each** question carries **4** marks.

27. Describe the reproduction in *Volvox*.
28. Comment on economic importance of algae.
29. How bacteria are classified according to staining reaction.
30. What are the general characters of Rhodophyceae?
31. Describe the thallus morphology and anatomy of *Sargassum*.
32. List the general characters of Zygomycotina.
33. Comment on mycelial organization in fungi.
34. Describe the morphology of basidiocarp in *Agaricus* with diagram.
35. Comment on different types of spores in fungi.
36. Discuss the sexual reproduction in *Usnea*.
37. Draw the structure of Cystocarp.
38. Explain the life cycle of *Polysiphonia*.

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions (not more than **3** pages). **Each** question carries **15** marks.

39. With suitable sketches and examples write an essay on different types of life cycles in algae
40. Briefly describe thallus organization in algae with suitable examples.
41. What are the general characteristics of fungi? Give a brief note on classification of fungi by Ainsworth.
42. With suitable diagrams, write an essay on life cycle of *Puccinia*.
43. Describe the economic importance of fungi with suitable examples.
44. Write an essay on post fertilization changes in Polysiphonia.

(2 × 15 = 30 Marks)