

(Pages : 3)

P – 2531

Reg. No. :

Name :

Fifth Semester B.Sc. Degree Examination, December 2022

First Degree Programme under CBCSS

Botany

Core Course V

**BO 1541 : MICROBIOLOGY, PHYCOLOGY, MYCOLOGY, LICHENOLOGY
AND PLANT PATHOLOGY**

(2013 Admission)

Time : 3 Hours

Max. Marks : 80

I. Write a short note on the following. All questions are compulsory.

1. Actinomycetes
2. Heterocysts
3. Function of the air bladders which are part of *Sargassum* thallus
4. Uses of lime sulphur
5. Coenobium
6. Dikaryon
7. Capsid
8. Anisogamy
9. Difference of mycoplasmas with other bacteria
10. Zygosporangium.

(10 × 1 = 10 Marks)

P.T.O.

II. Answer **any eight** of the following.

11. What are the major differences between gram negative and gram positive bacteria?
12. Describe the general structure of TMV.
13. Briefly describe the structure of the *Peziza apothecium*.
14. Write any four important characters of Cyanophyceae.
15. Which are the methods of reproduction found in *Nostoc*.
16. What is the economic importance of *Chlorella*?
17. Describe the strategies adopted for the control of tapioca mosaic disease.
18. Compare the structure of a teleutospore and uredospore.
19. Describe the thallus organization and cell structure in *Vaucheria*.
20. Write an account on the branching pattern of *Polysiphonia* thallus.
21. What causes citrus canker? What are the symptoms of it?
22. Explain the benefits of biofertilizers over chemical fertilizers.

(8 × 2 = 16 Marks)

III. Answer **any six** of the following.

23. Describe the modes of virus transmission among plants.
24. Write a brief description on the common methods used for the preservation of food.
25. What are the benefits that mycorrhizal association brings to the host plant?
26. Comment on the composition, preparation and use of Tobacco decoction.

27. Describe the unique features of the cell division in *Oedogonium*.
28. Comment on the nature of symbiotic association found in Lichens.
29. Describe the development and structure of carposporophyte and tetrasporophyte in *Polysiphonia*.
30. Give an outline of Ainsworth system of classification of fungi.
31. What are the unique characters of the subdivision Deuteromycotina? Which are the different classes coming under Deuteromycotina.

(6 × 4 = 24 Marks)

IV. Write essay on **any two** of the following.

32. Describe the heteroecious life cycle in *Puccinia*.
33. Describe in what all ways microbes are exploited to produce industrial products.
34. Write an essay on the economic importance of Algae.
35. Write a brief account on various types of plant diseases based on symptoms and causes.

(2 × 15 = 30 Marks)
