



**2023/FYUG/ODD/SEM/  
BOTDSC-102T/038**

**FYUG Odd Semester Exam., 2023  
( Held in 2024 )**

**BOTANY**

**( 1st Semester )**

**Course No. : BOTDSC-102T**

**( Phycology and Mycology )**

Full Marks : 70

Pass Marks : 28

**Time : 3 hours**

*The figures in the margin indicate full marks  
for the questions*

**SECTION—A**

**Answer ten questions, selecting any two from each**

**Unit :**

**2×10=20**

**UNIT—I**

- 1. Point out the pigments found in algae.**
- 2. Write briefly on the role of algae in agriculture.**
- 3. Write the contributions of M.O.P. Iyengar.**

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**( Turn Over )**





( 2 )

UNIT—II

4. Write a short note on the morphology of *Chara*.
5. Write a short note on the reserve food materials of Phaeophyta and Rhodophyta.
6. What are unilocular and plurilocular sporangia?

UNIT—III

7. Write two differences between plants and animals.
8. Write a short note on lichen.
9. What do you mean by holocarpic and eukarpic thallus?

UNIT—IV

10. Write a short note on heterothallism.
11. Write briefly on parasexuality.
12. Distinguish between uredospores and teleutospores.



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UNIT—V

13. Mention two roles of fungi in biotechnology.
14. Name two mycoproteins and their role.
15. Name two fungi used for making organic acids.

SECTION—B

Answer *five* questions, selecting *one* from each  
Unit :  $10 \times 5 = 50$

UNIT—I

16. Describe Fritsch's system of classification of Algae. Mention the significant contributions of G. M. Smith.  $8+2=10$
17. Write a detailed account of the cell structure and its components of algae. Describe the various methods of reproduction in algae.  $5+5=10$

UNIT—II

18. With necessary sketches, describe the thallus structure and asexual reproduction of *Chlamydomonas*. 10
19. Give a detailed account of post-fertilization changes in *Polysiphonia* with suitable diagrams. Add a note on the evolutionary significance of *Prochloron*.  $6+4=10$





### UNIT—III

20. Describe the classification of fungi as proposed by Ainsworth. 10
21. What are mycorrhizae? Describe the various types and significance of mycorrhizal association. 2+4+4=10

### UNIT—IV

22. Give the general characteristic, life cycle and classification of black stem rust of wheat caused by *Puccinia*. 10
23. With suitable diagrams give an account on the life cycle and classification of *Saccharomyces*. Add a note on the reproduction of *Penicillium*. 6+4=10

### UNIT—V

24. Discuss the application of fungi in food industry. Add a note on Fermentation. 6+4=10
25. Give an account of the process of mushroom cultivation. Name four species of edible mushroom. Add a note on mycotoxins. 6+2+2=10

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