

**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.**

(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.

24J/476

(Continued)

(3)

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 : 10×5=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

24J/476

(Turn Over)

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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