

**2025/FYUG/ODD/SEM/
BOTDSC-102T/220**

FYUG Odd Semester Exam., 2025

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*

UNIT—I

1. Answer any two from the following : 2×2=4

(a) Write a short note on dominant pigment found in Rhodophyceae and Phaeophyceae.

(b) State the role of BGA in agriculture.

(c) Give a detailed note on contribution of M. O. P. Iyengar in algae.

(2)

2. Answer any one from the following :

- (a) Describe briefly the various methods of reproduction in algae. Add a note on the importance of algae in biotechnology.
- (b) Write the detailed classification of algae given by Fritsch. Add a note on the evolutionary trends of algae.

UNIT—II

3. Answer any two from the following :

- (a) Briefly discuss the range of thallus organization in Chlorophyceae.
- (b) Write a note on morphology of *Nostoc*.
- (c) Write a short note on economic importance of Rhodophyta.

4. Answer any one from the following :

- (a) With necessary diagram, describe the morphology and reproduction in *Volvox*.
- (b) With necessary diagram, describe the reproduction in *Polysiphonia*. Write the difference between Chlorophyta and Rhodophyta.

(3)

UNIT—III

2×2=4

5. Answer any two from the following :

- (a) Write a short note on cell wall composition in fungi.
- (b) Briefly describe the general characteristics of fungi.
- (c) Write a short note on lichen.

10

6. Answer any one from the following :

- (a) With necessary example, describe the Ainsworth classification of fungi. Add a note on the economic importance of fungi.
- (b) Briefly discuss the affinities of fungi with plants and animals. Discuss the internal structure of thallus in lichen. Add a note on the significance of Mycorrhiza.

8+2=10

UNIT—IV

7. Answer any two from the following : 2×2=4

- (a) Briefly discuss the phenomenon of parasexuality in fungi Basidiomycetes.
- (b) Write a short note on black stem rust of wheat.
- (c) Write a short note on host and symptoms of *Phytophthora*.

8. Answer any *one* from the following :

- (a) Discuss the life cycle of *Penicillium*. Add a note on heterokaryosis. 7+3=
- (b) Discuss the reproduction in *Agaricus*. Write a short note on fruiting bodies of slime molds. Add a note on the economic importance of *Agaricus*. 6+3+1=

UNIT—V

9. Answer any *two* from the following : 2+2=

- (a) Name two fungi used in making flavouring substances.
- (b) Write a short note on mycoherbicides.
- (c) Write a short note on fungi in fermentation. 01=0

10. Answer any *one* from the following :

- (a) Discuss the role of fungi in production of enzymes, organic acids and mycoproteins. 4+3+3=
- (b) Discuss the role of fungi in pharmaceutical preparation. Add a note on mushroom cultivation. 5+5=
