

C 21260

(Pages : 2)

Name.....

Reg. No.....

**FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
APRIL 2022**

Botany

BOT 4B 04—PHYCOLOGY, BRYOLOGY AND PTERIDOLOGY

(2014—2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

Section A*Answer all questions**Each question carries 1 mark.*

1. A bryophyte in which the cell structure resembles that of an alga.
2. A bryophyte with multicellular rhizoids with oblique septa.
3. Fusion of two similar gametes.
4. The life cycle in algae, in which haploid and diploid plants are morphologically similar.
5. In which alga is plaque stage found ?
6. Types of phycobilins found in algae.
7. An example for a microphyllous pteridophyte.
8. A pteridophyte which have sporocarp.
9. A pteridophyte where embryo development is exoscopic.
10. Name of a leptosporangiate fern.

(10 × 1 = 10 marks)

Section B (Short Answer Questions)*Answer all questions.**Each question carries 2 marks.*

11. Write a brief account of any fossil bryophyte.
12. Describe the structure of mature sporophyte in *Riccia*.
13. Write notes on the importance of algae as fuels and pollution indicators.

Turn over

14. Describe the formation of daughter colony in *Volvox*.
15. Describe cap cell formation in *Oedogonium*.
16. Write short notes on siphonaceous thallus structure.
17. Differentiate between homosporous and heterosporous ferns by giving suitable examples.
18. What is Rhizophore ? Give an example.
19. Write down any *two* hydrophytic and xerophytic characters of *Equisetum*.
20. Describe the sorus in *Pteris*.

(10 × 2 = 20 marks)

Section C (Short Essay Questions)

Answer any **six** questions.
Each question carries 5 marks.

21. Write an account on the evolution of gametophytes in bryophytes.
22. Explain the structure of sporophyte of *Anthoceros*.
23. Give a concise account of classification of algae by Fritsch.
24. Describe the vegetative characters of *Chara*.
25. Discuss the important features of asexual reproduction in *Vaucheria*.
26. Outline the general characters of Bacillariophyceae.
27. Describe the structure of gametophyte in *Psilotum*.
28. Explain the morphological features of *Marsilea* sporophyte.

(6 × 5 = 30 marks)

Section D (Essay Questions)

Answer any **two** questions.
Each question carries 10 marks.

29. Write an essay on the different types of steles found in the pteridophytes mentioned in your syllabus, with suitable diagrams.
30. Describe the life cycle of Selaginella.
31. Describe the process of asexual reproduction in nannandrous species of *Oedogonium*.

(2 × 10 = 20 marks)