

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2016

(CUCBCSS-UG)

Core Course – Botany

BOT 4B 04 – PHYCOLOGY, BRYOLOGY AND PTERIDOLOGY

Time : Three Hours

Maximum : 80 Marks

Part A

*Answer all questions.*Fill in the blanks *or* answer in one word :

1. Synangium is seen in _____
2. Which bryophyte is called 'horn wort'?
3. Nostoc colonies are seen in which bryophyte.
4. Name one heterosporous pteridophyte.
5. The predominant phase in the life cycle of *Psilotum* is the _____ phase.
6. Some species of which alga produce dwarf males?
7. Name a bryophyte which produce protonema.
8. Which pteridophyte is called 'whisk fern'?
9. _____ is a coenocytic alga belonging to the class Xanthophyceae.
10. Name the male sex organ produced by *Chara*.

(10 x 1 = 10 marks)

Part B (Short Answer Type Questions)

Answer all questions.

11. Explain the structure of the sporophyte of *Riccia*.
12. Write a note on the economic importance of Diatoms.
13. Explain lateral conjugation in *Spirogyra*.
14. With the help of a labeled diagram, explain the structure of *Chlamydomonas* cell.
15. Name a plant possessing amphiphloic siphonostele. Explain the arrangement of various tissues in such a stele.
16. Explain the aquatic adaptations of *Equisetum*.
17. With the help of a diagram, explain the structure of antheridial cluster in *Funaria*.

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18. What is Rhizophore? Explain the different views regarding the morphology of rhizophore.
19. Explain the mechanism of dehiscence seen in *Funeria sporophyte*.
20. Write a note on fossil bryophytes.

(10 x 2 = 20 marks)

Part C (Short Essays)

Answer any six questions.

21. Explain the sexual reproduction in *Sargassum*.
22. Explain the anatomy of *Anthoceros* thallus.
23. What are auxospores? Explain the formation of auxospores.
24. Write a note on the salient features of pteridophytes.
25. Explain the general life cycle pattern of bryophytes.
26. With the help of a simple sketch, explain the structure of *Marsilea* sporocarp.
27. With the help of a labeled diagram, explain the thallus anatomy of *Riccia*.
28. Write brief notes on : (a) *Nucule* ; (b) *Amylum* stars ; and (c) *Heterocyst*.

(6 x 5 = 30 marks)

Part D (Essay Questions)

Answer any two questions.

29. With the help of diagrams, explain the life cycle of *Equisetum*.
30. Explain the structure of sex organs and the process of sexual reproduction in *Vaucheria*
31. With the help of sketches, explain the structure and dehiscence of *Anthoceros* sporophyte.

(2 x 10 = 20 marks)