

C 61219

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Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2019

(CUCBCSS—UG)

Botany

BOT 4B 04—PHYCOLOGY, BRYOLOGY AND PTERIDOLOGY

Time : Three Hours

Maximum : 80 Marks

Part A

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

Answer in *one* word :

1. The reserve food material in Phaeophyceae.
2. The most advanced type of sexual reproduction in algae.
3. An alga with unbranched filaments.
4. Protein bodies surrounded by starch sheath.
5. A pteridophyte in which spores germinate within the sporangium.
6. A leptosporangiate fern.
7. A pteridophyte with sporocarp.
8. Spore producing organs of *Psilotum*.
9. Name a bryophyte in which basal part of the capsule is meristematic.
10. Name an aquatic species of *Riccia*.

(10 × 1 = 10 marks)

Part B (Short Answer Type Questions)

*Answer all questions.
Each question carries 2 marks.*

11. Write short notes on dwarf males of *Oedogonium*.
12. What is meant by physiological anisogamy ? Give an example.
13. Describe lateral conjugation in *Spirogyra* briefly.
14. Write down any four important characters of Xanthophyceae.

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15. Describe the aerial shoots of *Psilotum*.
16. Mention any one root like and stem like characters of rhizophores.
17. Describe the structure of the vascular bundle in *Equisetum*.
18. Describe in brief, the gametophyte of *Pteris*.
19. Write about the economic importance of bryophytes.
20. Why the sporophyte of *Riccia* is considered to be primitive ?

(10 × 2 = 20 marks)

Part C (Short Essays)

Answer any **six** questions.

Each question carries 5 marks.

21. Write notes on the male and female reproductive organs of *Polysiphonia*.
22. Explain sexual reproduction in *Vaucheria*.
23. Describe the structure of reproductive organs of *Chara*.
24. Write an account of the general characters of Phaeophyceae.
25. Describe the structure of the gametophyte and the sex organs of *Psilotum*.
26. Write an account on the organization of the strobilus and describe the spores in *Equisetum*.
27. Describe the internal structure of the rhizome in *Marsilea*.
28. Describe the internal structure of the gametophyte of *Riccia*.

(6 × 5 = 30 marks)

Part D (Essay Questions)

Answer any **two** questions.

Each question carries 10 marks.

29. With the help of suitable diagrams explain the life cycle of *Equisetum*.
30. Describe the sporophyte of *Anthoceros*. Add a note on its evolutionary significance.
31. Write an account of the economic importance of algae.

(2 × 10 = 20 marks)