

C 80862

Botany

(Pages : 2)

Name.....

Reg. No.....

**FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION  
APRIL 2020**

Botany

**BOT 4B 04—PHYCOLOGY, BRYOLOGY AND PTERIDOLOGY**

Time : Three Hours

Maximum : 80 Marks

**Section A**

*Answer all questions.*

*1 mark each.*

1. A bryophyte in which the basal part of the capsule is meristematic.
2. Any bryophyte with dimorphic rhizoids.
3. A colony with a definite shape, size and arrangement of cells.
4. The most advanced type of sexual reproduction in algae.
5. Protein bodies surrounded by starch sheath.
6. A motile, flagellated asexual cell.
7. A pteridophyte which show both hydrophytic and xerophytic characters.
8. Name of a leptosporangiate fern.
9. Name two species of *Psilotum*.
10. What type of alternation of generation is found in pteridophytes ?

(10 × 1 = 10 marks)

**Section B (Short Answer Questions)**

*Answer all questions.*

*2 marks each.*

11. Bryophytes are called amphibians of the plant kingdom. Comment on the statement.
12. Why *Anthoceros* plants are called hornworts ?
13. Write a short note on palmella stage in *chlamydomonas*.
14. Explain the process of scalariform conjugation in *Spirogyra*.
15. Differentiate between zoospore and aplanospore.
16. Write notes on dwarf males in *Oedogonium*.

**Turn over**

17. List four major differences between bryophytes and pteridophytes ?
18. Describe the structure of stele in *Psilotum*.
19. Write about the structure and function of ligule.
20. Describe the external features of the sporocarp in *Marsilea*.

(10 × 2 = 20 marks)

### Section C (Short Essay Questions)

Answer any six questions.

5 marks each.

21. Describe the sex organs and sporophyte of *Riccia*.
22. Describe the external and internal features of *Anthoceros gametophyte*.
23. Explain the structure of sex organs in *Chara*.
24. Describe thallus structure in *Sargassum*.
25. Explain sexual reproduction in *Vaucheria*.
26. Write an account on the commercial products obtained from algae.
27. Discuss the structure of different types of protosteles found in pteridophytes.
28. Describe the external morphology of *Equisetum* sporophyte.

(6 × 5 = 30 marks)

### Section D (Essay Questions)

Answer any two questions.

10 marks each.

29. Write an essay on heterospory and seed habit in pteridophytes.
30. With the help of suitable diagrams describe the life history of *Pteris*.
31. Describe the mode of reproduction in *Polysiphonia*.

(2 × 10 = 20 marks)