



K22P 1565

Reg. No. : .....

Name : .....

**I Semester M.Sc. Degree (CBSS-Reg./Sup./Imp.) Examination, October 2022  
(2019 Admission Onwards)**

**BOTANY**

**BOT 1C03 : Bryology, Pteridology and Gymnosperms**

Time : 3 Hours

Max. Marks : 60

**SECTION – A**

Answer **any two**. (Either a or b).

1. a) Explain the general characters of Jungermanniales. What are the reproductive characters of *Porella* ?

OR

- b) Write a note on the types of gametophytes in homosporous ferns.

2. a) Write an account on Pteridospermales. Discuss their significance in the phylogeny of Gymnosperms.

OR

- b) Prepare a comparative account of the anatomical feature of Ginkgoales and Taxales.

(2×8=16)

**SECTION – B**

Answer **any two**. (1 mark for part a; 2 marks for part b; 3 marks for part c)

3. a) Write a brief account of fossil bryophytes, citing examples.  
b) Discuss the contribution made by Professor BK Nayar.  
c) Structure of ovule in *Welwitschia*.
4. a) Describe Cleavage polyembryony citing examples.  
b) Explain the affinities of *Sphagnum* with other members of bryophytes.  
c) Discuss the trend of evolution of soral types in Pteridophytes.
5. a) Diversity of gametophytes in Lycopodiales.  
b) Compare the features of Manoxylic and Pycnoxylic woods.  
c) Explain the internal structure of *Targionia*.

(2×6=12)

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**SECTION – C**

Answer **any six**.

6. Briefly explain the classification of Bryophytes.
7. Briefly explain the contribution of Indian Bryologists.
8. Citing examples, discuss polyploidy in Pteridophytes.
9. Write an account on the sporocarp of *Salvinia*.
10. Write an account on the major weedy pteridophytes and their control.
11. Write an account of anatomical features of Ephedrales.
12. Structure of male cone and male gametophyte in Gnetales.
13. Write a note on the diversity of naturally occurring Gymnosperms in Kerala. (6×3=18)

**SECTION – D**

Answer **any seven**.

14. What are the general characters of *Sphaerocarpus* ?
15. Explain the sporophyte of *Andreaea*.
16. Explain the importance of bryophytes as an indicator of atmospheric pollution.
17. Write an account on perennial gametophytes in Pteridophytes citing examples.
18. Write on the diversity and salient features of Halophytic pteridophytes.
19. Write an account on the medicinal pteridophytes of Southern India
20. Write a brief account of Glossopteridales.
21. Economic significance of Coniferales.
22. Brief account on the structure of Caytoniales.
23. Write a brief note on vegetative and reproductive parts of Pentoxylales. (7×2=14)