



K21P 4173

Reg. No. :

Name :

**I Semester M.Sc. Degree (CBSS-Reg./Supple./Imp.)
Examination, October 2021
(2018 Admission Onwards)**

BOTANY

BOT1 C 03 : Bryology, Pteridology and Gymnosperms

Time : 3 Hours

Total Marks : 60

SECTION – A

Answer any two (Either a or b) :

1. a) Explain the origin and evolution of bryophytes.

OR

- b) Write a note on the classification of pteridophytes by Smith et al. (2010). Discuss its salient features in view of phylogeny of pteridophytes.

2. a) Write an account on the patterns of life history of pteridophytes. Discuss the significance of apogamy and apospory as strategies of success in pteridophytes.

OR

- b) Write an account of Gnetales. Discuss the salient features in considering them as the ancestors of angiosperms.

(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) What are elaters and what are the functions of elaters ?
b) Write an account on Psilophytales.
c) Describe the structure of female gametophyte in Ephedrales.

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4. a) Write two Indian species of *Cycas*.
b) What are the morphological characters of *Notothylas* ?
c) Write on the trend of evolution of stele in vascular plants.
5. a) Discuss the salient features of Telome theory.
b) Write an account of Pentoxylales.
c) Explain fossil Hepaticopsida.

(2×6=12)

SECTION – C

Answer any six.

6. Explain the evolution of sporophyte in bryophytes.
7. Explain the general characters of Andreales.
8. Write a note on filamentous type gametophyte in Pteridophytes.
9. Write an account on the Xerophytic pteridophytes. Discuss their salient features of reproduction.
10. Write an account on soral types in Marattiales.
11. Write on the salient features of Ginkgoales.
12. Write an account on the Pteridospermales.
13. Discuss the wood anatomical features of Taxales.

(6×3=18)

SECTION – D

Answer any seven.

14. Explain the economic importance of bryophytes.
15. Explain the morphological characters of peat moss.
16. Explain the ecological importance of bryophytes.



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17. Write a note on the salient features of sporophyll in Isoetales.
18. Write a brief note on epiphytic pteridophytes of Kerala.
19. Write an account on the edible pteridophytes of Southern India.
20. Xerophytic adaptations of *Welwitschia*.
21. Write a note on Caytoniales.
22. Male gametophyte in Coniferales.
23. Female gametophyte in Cycadales.

(7×2=14)

