



QP CODE: 21102999



21102999

Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) EXAMINATIONS, OCTOBER 2021**

**Fourth Semester**

**Core Course - BO4CRT04 - PTERIDOLOGY, GYMNOSPERMS AND PALEOBOTANY**

(Common for B.Sc Botany and Biotechnology Model III Double Main, B.Sc Botany Model I, B.Sc Botany Model II Environmental Monitoring and Management, B.Sc Botany Model II Food Microbiology, B.Sc Botany Model II Horticulture and Nursery Management & B.Sc Botany Model II Plant Biotechnology)

2019 Admission only

E6602FE1

Time: 3 Hours

Max. Marks : 60

**Part A**

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Define Sporophyll.
2. What is endoscopic embryo development?
3. List any two xerophytic adaptations of Equisetum.
4. Name an aquatic pteridophyte.
5. What is Actinostele?
6. Which geological period is known as the ' Age of Gymnosperms'?
7. Name the four sub classes of gymnosperms in Christenhusz classification system.
8. List the peculiarities of Coralloid roots.
9. Which plant is the source of turpentine?
10. Write the name of two resins produced by conifers.
11. What is paper coal?
12. In which year Birbal Sahni Institute of Palaeobotany was established?

(10×1=10)

**Part B**

*Answer any **six** questions.*

*Each question carries **5** marks.*





13. Explain the structure and function of Synangium
14. Describe the structure of sporophyte of *Selaginella*.
15. Describe the structure of prothallus in Equisetum with a labelled diagram.
16. Describe the structure of prothallus in Pteris.
17. Explain the salient features of Cycadopsida, Coniferopsida and Gnetopsida.
18. Describe the xerophytic adaptations in Cycas.
19. Describe the structure of male strobilus in Gnetum with a labelled diagram.
20. Give an account on fructifications in Calamites.
21. Give an account on the fossil deposits in India.

(6×5=30)

**Part C**

*Answer any two questions.*

*Each question carries 10 marks.*

22. Give a detailed account on Pteridophyte classification by Smith.
23. Describe the morphology and anatomy of sporocarp of Marsilea with a labelled diagram.
24. Explain the economic importance of pteridophytes.
25. Comment on the affinities of gymnosperms with angiosperms.

(2×10=20)

