



22102899

**QP CODE: 22102899**

**Reg No** : .....

**Name** : .....

**B.Sc DEGREE (CBCS) REGULAR EXAMINATIONS, AUGUST 2022**

**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)

2020 Admission Only

2A5B5FF4

Time: 3 Hours

Max. Marks : 60

**Part A**

*Answer any **ten** questions.*

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

1. Give an example for Lycopsidan member.
2. Define exoscopic embryo development.
3. List the functions of ligule.
4. What is the indusium?
5. What is a Protostele?
6. What are Seed Ferns?
7. Name the four sub classes of gymnosperms in Christenhusz classification system.
8. Which algae is generally inhabited in the coralloid roots of Cycas?
9. Mention two economic importance of Pinus .
10. List any two features shared by pteridophytes and gymnosperms.
11. Comment on Palaeostachya.
12. Who is the father of Indian Palaeobotany?

(10×1=10)





### Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Explain asexual reproduction in *Lycopodium*.
14. List out the xerophytic adaptations of *Equisetum*.
15. Explain the structure of spore bearing organ in *Equisetum*.
16. Describe the anatomy of sporocarp of *Marsilea*.
17. Explain the general morphological and anatomical peculiarities of gymnosperms.
18. Explain the morphology of Micro and Megasporophylls in *Cycas* with diagram.
19. Describe the structure of male strobilus in *Gnetum* with a labelled diagram.
20. What are fossils? Explain the theories of fossilization.
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. Explain the sexual reproduction in *Psilotum*.
23. 'Heterospory is the antecedent of seed habit'. Explain.
24. Explain the economic importance of pteridophytes.
25. Comment on the affinities of gymnosperms with angiosperms.

(2×10=20)

