QP CODE: 21101019

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Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) EXAMINATION , MARCH 2021

Fourth Semester

Core Course - BO4CRT04 - PTERIDOLOGY, GYMNOSPERMS AND PALEOBOTANY

(Common for 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 and Biotechnology Model III Double Main, B.Sc Botany Model II Plant Biotechnology)

2017 ADMISSION ONWARDS

7F23FA4E

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. What is heterospory?
2. What is Synangium?
3. Name a heterosporous pteridophyte.
4. Name a homosporous pteridophyte.
5. Define Mixed Protostele.
6. Who coined the term Gymnosperm?
7. What are Seed Ferns?
8. What is the function of transfusion tissue?
9. What do you mean by pavement tissue?
10. Which gymnosperm yields 'sago'?
11. What is a mummified fossil?
12. Name a Fossil Gymnosperm described by Prof. Birbal Sahni from Rajmahal Hills.

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Give an account on different type of gametophytes in *Lycopodium*.

14. With the help of a labelled diagram explain the stem anatomy of *Selaginella*.

15. List out the xerophytic and hydrophytic adaptations of Equisetum.

16. Give an account on the structure of sporangia in Pteris with illustration.

17. Briefly outline Christenhusz system of gymnosperm classification.

18. Explain the morphology of Micro and Megasporophylls in Cycas with diagram.

19. Explain with diagram the structure of female cone in Pinus.

20. Explain the internal structure of aerial shoot and rhizome of Rhynia.

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 alternation of generations in *Lycopodium*.

23. Explain the life cycle of Marsilea.

24. Explain the economic importance of pteridophytes.

25. Comment on the affinities of gymnosperms with angiosperms.

(2×10=20)