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Fourth Semester B.Sc. Degree Examination, August 2022

First Degree Programme under CBCSS

BOTANY

CORE COURSE

BO 1441 : BRYOLOGY, PTERIDOLOGY, GYMNOSPERMS AND PALEOBOTANY

(2014–2018 Admission)

Max. Marks : 80

Time : 3 Hours

PART – A

Answer **All** questions.
Each question carries **1** mark.

1. What is Peristome?
2. Define Protostele.
3. Comment on rhizophore.
4. Define pycnoxylic wood.
5. Comment on accessory transfusion tissue.
6. What is tentpole?
7. Illustrate spur shoot.

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8. Explain diploxylic condition.

9. Write any two key features of *Lepidodendron*.

10. What is strobilus?

(10 × 1 = 10 Marks)

PART – B

Answer any **Eight** questions.
Each question carries **2** mark.

11. Comment on arm parenchyma.

12. Illustrate sori.

13. Comment on megasporophyll of Cycas.

14. Describe the male strobilus of Gnetum.

15. Illustrate the microsporophyll of Pinus.

16. Write the name of any two ornamental ferns.

17. Comment on ligule.

18. Describe sporocarp.

19. Contrast the mosses from liverworts.

20. Compare the indusium of Marsilea and Pteris.

21. Comment on the mode of vegetative propagation of Pteris.

22. Explain the features of sporophyll of Pteris.

(8 × 2 = 16 Marks)

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PART – C

Answer any **Six** questions
Each question carries **4** marks.

23. Write an account on the formation of fossils.

24. Briefly describe the primary structural anatomy of Gnetum stem.

25. Illustrate the anatomy of the primary root of Cycas.

26. Briefly describe anatomical peculiarities of Selaginella stem with suitable diagram.

27. With suitable diagram identify the structural features of the stem of Psilotum.

28. Write an account on different types of protosteles with suitable diagrams.

29. Comment on different eras in geological time scale.

30. Briefly describe the structure of sporophyte of Marchantia with suitable diagram.

31. How does heterosporty leads to seed habit?

(6 × 4 = 24 Marks)

PART – D

Answer any **Two** questions.
Each question carries **15** marks.

32. Describe the structure of sporophyte of *Funaria* with the help of a diagram. Illustrate its spore dispersal mechanism.

33. Explain the life cycle of *Selaginella* with the help of a schematic diagram. Give special reference to heterospory.

34. Illustrate the life cycle of *Gnetum*. Mention the advanced features.

35. Describe the structure of sporocarp of *Marsilea* with the help of a diagram. Comment on its dehiscence mechanism.

(2 × 15 = 30 Marks)

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