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Reg. No. :

Name :

Fourth Semester B.Sc. Degree Examination, May 2021

First Degree Programme Under CBCSS

Botany

Core Course

**BO 1441 — BRYOLOGY, PTERIDOLOGY, GYMNOSPERMS AND
PALEOBOTANY**

(2015 – 2018 Admission)

Time : 3 Hours

Max. Marks : 80

PART – A

Answer **all** questions in a word or **one** or **two** sentences. Each question carries **1** mark.

Draw diagrams only if specified in the question.

1. What are gemmae?
2. What is cleavage polyembryony?
3. Define amber.
4. What is alternation of generation?
5. What are trabeculae?
6. What is manoxylic wood?
7. What is indusium?

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8. Name two aquatic species of *Riccia*.
9. *In situ* germination
10. What is calyptra?

(10 × 1 = 10 Marks)

PART – B

Answer **any eight** questions. Each question carries **2** marks. Answer not to exceed one paragraph.

11. What is amphiphloic siphonostele? Give one example.
12. How do bryophytes prevent soil erosion?
13. Draw the L S of *Gnetum* ovule.
14. Mention the function of peristome teeth? Where do you find it?
15. Differentiate sporangium, sorus and sporophyll.
16. Mention the location and function of transfusion tissue.
17. Bring up the morphology of *Selaginella* rhizophore.
18. Write short note on *Lepidocarpon*.
19. Which group is known as 'amphibians of plant kingdom' and why?
20. Describe the structure of a typical archegonium seen in bryophytes.
21. Discuss the megasporophyll of *Cycas*.
22. Write short note on Petrification.

(8 × 2 = 16 Marks)

PART – C

Answer **any six** of the following. Each question carries **4** marks.

23. Discuss the sporophyte of *Funaria*.
24. Differentiate the photosynthetic zones of *Riccia* and *Marchantia*.
25. Discuss the spore bearing structure of *Marsilea*.
26. Describe the structure of prothallus of *Pteris*.
27. Enumerate any four similarities of bryophytes with pteridophytes.
28. Draw a neat labelled diagram of *Cycas* ovule and mention its important features.
29. What are the angiosperm characters of *Gnetum*?
30. Write short note on geological time scale.
31. Discuss the classification of gymnosperms

(6 × 4 = 24 Marks)

PART – D

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

32. With the help of neat labelled diagrams, describe the life cycle of *Psilotum*.
33. Discuss the life cycle of *Pinus* with suitable diagrammatic representations.
34. Discuss the structure of antheridiophore, archegoniophore and sporogonium of *Marchantia*.
35. Discuss various methods of Fossilization.

(2 × 15 = 30 Marks)