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P – 4073

Reg. No. :

Name :

Third Semester B.Sc. Degree Examination, January 2023

Career Related First Degree Programme under CBCSS

Group 2(a) Botany and Biotechnology

Group 2(b) Biotechnology (Multimajor)

Core Course V

**BB 1342/BV 1342.1 : BRYOLOGY, PTERIDOLOGY, GYMNOSPERMS AND
PALEOBOTANY**

(2015-2018 Admission)

Time : 3 Hours

Max. Marks : 80

- I. Answer all questions.
1. What is ovuliferous scale?
2. Name the plant with false indusium.
3. What is infiltration theory?
4. What is annulus?
5. Mention the types of rhizoids in *Riccia*.
6. Name the plant with rhizophore?
7. What is cleavage polyembryony?
8. What is dwarf shoot?
9. Name a fossil gymnosperm studied by you.
10. Identify the type of stele in *Marsilea* rhizome.

(10 × 1 = 10 Marks)

P.T.O.

II. Short Answer Questions. (Answer any **eight** of the following).

11. Give an account on vegetative reproduction in *Marchantia*.
12. What are the characteristics of *Rhynia*?
13. What is mycorrhiza?
14. What is actinostele? Name a pteridophyte with this type of stele.
15. Explain the hydrophytic adaptations of *Equisetum stem*.
16. Write an account on Mesozoic era.
17. Thallus anatomy in *Anthoceros*.
18. How is compression different from impression?
19. Write down the affinities of gymnosperms with pteridophytes.
20. Differentiate mapoxylic and pycnoxylic wood.
21. Describe megasporophyll in *Cycas*.
22. What is synangium? In which plant it is seen?

(8 × 2 = 16 Marks)

III. Short Essay Questions. Answer any **six** of the following.

23. Explain archegoniophore in *Marchantia*.
24. Discuss briefly the structure of sporophyll in *Pteris*.
25. Write down the techniques used in fossil study.
26. Give an account of advanced characters of *Anthoceros* sporophyte.
27. What is prothallus? Explain the structure.

28. Describe the sporocarp of *Marsilea* with the help of diagram.
29. Explain anatomical structure of *Pinus* needle.
30. Horticultural importance of bryophytes.
31. Mention the characteristic feature of any two fossil pteridophytes studied by you.

(6 × 4 = 24 Marks)

IV. Essay type. Answer any **two** of the following.

32. Write an essay on heterospory and seed habit with respect to *Selaginella*.
33. Explain the life cycle of *Gnetum*.
34. Write an essay on economic importance of gymnosperms.
35. With the help of suitable diagrams describe the sporophytic generation in *Funaria*.

(2 × 15 = 30 Marks)
