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Reg. No. :

Name :

Fifth Semester B.Sc. Degree Examination, December 2022

First Degree Programme under CBCSS

Botany

Core Course — VI

**BO 1542 : BRYOLOGY, PTERIDOLOGY, GYMNOSPERMS AND
PALEOBOTANY**

(2013 Admission)

Time : 3 Hours

Max. Marks : 80

- I. Write a short note on the following. All questions are compulsory.
1. What is gemmae cup?
 2. What is the name given to the sporophyte in Riccia?
 3. What is moss flower?
 4. What is the stele in Psilotum?
 5. What is eusporangiate type of development?
 6. Comment on the elators in Equisetum
 7. Where do you find the carinal canal?
 8. What is sulfur shower?

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9. Name the plant with synangium
10. What is Precambrian flora?

(10 × 1 = 10 Marks)

II. Answer **any eight** of the following :

11. Describe the megasporangium in *Selaginella*
12. Comment on the xerophytic adaptations in *Equisetum*.
13. Describe the archegonia of *Riccia*. Draw diagrams.
14. Describe the stelar structure in *Marsilea*.
15. *Rhynia* is the first land plant. Comment on it.
16. Draw the CS of a leptosporangiate sporangium.
17. What is meant by circinnate vernation? What is its advantage?
18. Draw the labeled diagram of the CS of the thallus of *Marchantia*.
19. What are the angiosperm features of *Gnetum*?
20. Make a note on the absorptive organs in Bryophytes.
21. Describe the structure of the gametophyte in *Adiantum*.
22. Comment on the secondary growth in *Cycas*.

(8 × 2 = 16 Marks)

III. Answer **any six** of the following :

23. Explain the structure of the female reproductive organs in *Marchantia*.
24. Make a comment on the gametophyte in *Psilotum*.

25. Describe the sorus in *Adiantum*.
26. Explain the hydrophytic adaptations in *Marsilea*.
27. Illustrate the stelar diversity in *Lycopodium*. Draw diagrams.
28. Draw the VS of the ovule in *Cycas*.
29. Describe the spore and sporangium in *Pinus*.
30. Describe the secondary growth in *Gnetum*. Draw diagrams.
31. Describe the sporocarp in *Marsilea*.

(6 × 4 = 24 Marks)

IV. Answer **any two** of the following :

32. Describe the evolutionary trend in the sporophyte formation in Bryophytes.
33. Make a detailed account on the stelar evolution in Pteridophyte.
34. Explain various fossils and the formation of fossils.
35. Explain the heterospory in selaginella. Why selaginella is consider as the forerunner of seed habit.

(2 × 15 = 30 Marks)
