



(Pages : 2)

D – 3316

Reg. No. :

Name :

**Third Semester B.Sc. Degree Examination, December 2017
(Career Related First Degree Programme under CBCSS)**

Core Course – V

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

**(Common for Group 2(a) Botany and Biotechnology and Group 2(b)
Biotechnology)
(2015 Admission Onwards)**

Time : 3 Hours

Max. Marks : 80

Instruction : Draw diagrams *only* when specified.

SECTION – A

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

1. Name one aquatic species of *Riccia*.
2. What are gemma cups ?
3. Which genus is known as club mosses ?
4. Define actinostele.
5. What is synangia ?
6. Name a pteridophyte used as biofertilizer.
7. What is transfusion tissue ?
8. Name one scandent species of *Gnetum*.
9. Which is the golden age of Gymnosperms ?
10. Who is Birbal Sahni ?

(1×10=10 Marks)

SECTION – B

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

11. What is calyptra ? Where will you see this ?
12. Explain the structure of *Marchantia* sporophyte.



13. Briefly describe the interval structure of *Selaginella* stem.
14. Describe the stele of *Marselia* rhizome.
15. Compare eusporangiate and leptosporangiate sori.
16. What are coralloid roots ?
17. Differentiate monoxyletic and pinoxylic wood.
18. What is meant by 'Bars of sanio' ?
19. Give an account of male inflorescence of *Gnetum*.
20. What are girdle traces ?
21. Give an account of geological time scale.
22. What are the applied aspects of Palaeobotany ?

(2×8=16 Marks)

SECTION - C

Answer **any six** questions. **Each** question carries **4** marks. Answer **not** to exceed **120** words.

23. Mention the economic importance of bryophytes.
24. Explain the structure of sporophyte of *Funaria*.
25. What are the economic importance of Pteridophytes ?
26. With the help of a labelled diagram explain the structure of *Equisetum* cone.
27. Heterospory leads to seed habit. Explain.
28. Compare the ovules of *Cycas* and *Gnetum*.
29. What are the peculiarities of *Pinus* needle ?
30. Why *Gnetum* is considered as an advanced Gymnosperm ?
31. Describe the anatomy of *Lepidodendron*.

(4×6=24 Marks)

SECTION - D

Answer **any two** questions. (**Not** more than **three** pages). **Each** question carries **15** marks.

32. Explain the life cycle of *Riccia* with suitable diagrams.
33. Give an account of stelar evolution in Pteridophytes with illustrations.
34. Explain the relationship of Gymnosperms with Pteridophytes and Angiosperms.
35. Describe the economic importance of Gymnosperms.

(15×2=30 Marks)