

Reg. No. :

Name :

Fourth Semester B.Sc. Degree Examination, May 2021

Career Related First Degree Programme Under CBCSS

Botany and Biotechnology

Core Course

**BB 1441 – BRYOLOGY, PTERIDOLOGY, GYMNOSPERMS AND
PALEOBOTANY**

(2019 Admission Regular)

Time : 3 Hours

Max. Marks : 80

SECTION – A

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

Define the following :

1. What are coralloid roots?
2. What is a sporocarp?
3. Name a homosporous pteridophyte.
4. Define a pseudo fossil.
5. What is a gemmae?
6. What is mesarch xylem?
7. Define apospory.

8. What is trabeculae?
9. What is fossilization?
10. What is a sorus?

(10 × 1 = 10 Marks)

SECTION – B

Answer **any eight** questions not exceeding a paragraph. Each question carries 2 marks.

11. Give the systematic position of *Riccia*.
12. Comment on fossil fuels.
13. Mention the diagnostic features of Coniferopsida.
14. What is meant by Radiocarbon dating?
15. Distinguish between manoxylic and pycnoxylic wood.
16. Mention the fern characters of *Cycas*.
17. Comment on xerophytic adaptations in *Equisetum*.
18. What are archegoniophores?
19. Mention the difference between Leptosporangiate and Eusporangiate condition.
20. Describe the stele of *Psilotum* aerial shoot.
21. Comment on the types of leaves in *Pinus*.
22. Distinguish between simple and tuberculated rhizoids.
23. Describe the structure of sporangiophore in *Equisetum*.

24. Give the systematic position of *Pteris*.
25. What is Paleobotany? Who is considered as Father of Indian Paleobotany?
26. Write short notes on alternation of generations.

(8 × 2 = 16 Marks)

SECTION – C

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

27. Describe the external morphology of *Lyginopteris*.
28. Comment on the anatomical peculiarities of *Cycas* leaflet.
29. Write a brief account on types of fossils.
30. Describe the structure of *Pinus* male cone.
31. Give a brief account on *Lepidodendron*.
32. List the economic importance of *Pinus*.
33. Write an account on heterospory and seed habit.
34. Briefly describe the anatomy of *Marchantia* thallus.
35. Explain the structure of *Lepidocarpon*.
36. Describe the external morphology of *Pteris*.
37. Discuss the general characters of Gymnosperms.
38. Describe the external morphology of *Gnetum* and point out its advanced characters.

(6 × 4 = 24 Marks)

SECTION – D

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

39. Describe the external morphology of *Selaginella* and add a note on its reproduction.
40. Explain the salient features of Bryophytes. Add a note on its classification and economic importance.
41. With the help of labelled diagrams explain stelar evolution in Pteridophytes.
42. Write an account on the structure and reproduction in *Funaria*.
43. Describe the structure and reproduction in *Rhynia*.
44. Give an account on the external characters of *Cycas*. Add a note on its reproduction.

(2 × 15 = 30 Marks)