(Pages : 3)

R – 2501

Reg. No. : .....

Name : .....

Fourth Semester B.Sc. Degree Examination, July 2023

Career Related First Degree Programme under CBCSS

Botany and Biotechnology

Core Course VI

BB 1441 : BRYOLOGY, PTERIDOLOGY, GYMNOSPERMS AND PALEOBOTANY

(2019 Admission onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in **one** word or sentences.

1. Define circinate vernation.
2. Name the types of vegetative reproduction in Bryophytes.
3. Which Pteridophyte is called Gold Rush?
4. Name the source of Sago.
5. Define heterospory.
6. Comment on *Lyginopteris.*
7. What is the significance of fossil fuels?

P.T.O.

8. Name two economically important Gymnosperms.

9. Define synangium.

10. What is alternation of generations?

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions. Each question carries **2** marks. Short Answer (Not to Exceed **One Paragraph**)

11. Explain distinguishing characteristics of Bryophytes.

12. Illustrate the Internal structure of *Morchantia* thallus.

13. Differentiate between protostele and siphonostele.

14. List out the economic importance of Pteridophytes.

15. Detail the Pinus needle.

16. Explore the evolutionary trends in Gymnosperms and their relationships with other plant groups.

17. Explain any one process of fossilization and its Importance in Paleobotany.

18. Comment on amber and its significance.

19. Point out the peculiarities of rhizophore.

20. Describe the structure of *Equisetum* internode.

21. Explain the stele in *Pteris* Petiole.

22. What are the features of Precambrian?

(8 × 2 = 16 Marks)

SECTION – C

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

23. Compare and contrast the habit and thallus organization of *Riccia*, and *Funaria*.

24. Discuss the structure of Moss capsule.

25. What are the angiospermic affinities of *gnetum*?

26. Discuss the seed habit of Pteridophytes.

27. Describe the anatomy of coralloid root.

28. Discuss the significance of Gymnosperms in Food.

29. Explain the types of fossilisation.

30. Discuss on the fossil pteridophyte *Rhynia*.

31. Explain the structure of *Lepidodendron*.

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. **Each** question carries **15** marks. (Answer not to exceed **three pages**)

32. Discuss the sexual reproduction of *Marchantia*.

33. Explain the life cycle of *Selaginella*.

34. Discuss the evolutionary relationship between Bryophytes, Pteridophytes, and Gymnosperms.

35. Describe the alternation of generation in *Pteris*.

(2 × 15 = 30 Marks)
