

Reg. No. :

Name :

First Semester B.Sc. Degree Examination, January 2024

Career Related First Degree Programme under CBCSS

Group 2 (a): Botany and Biotechnology

Core Course

BB 1141 : ANGIOSPERM ANATOMY AND REPRODUCTIVE BOTANY

(2023 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

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

1. What is a periderm?
2. Mention the function of plasmodesmata.
3. Name a natural stain.
4. Define an endosperm.
5. What are growth rings?
6. What are antipodal cells?
7. List the types of pollination.

8. What are tyloses?
9. List any two extra cell wall materials.
10. Name two viability tests for pollen.

SECTION – B

(10 × 1 = 10 Marks)

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

11. Describe the vascular bundle in *Dracaena*.
12. What are passage cells? What is its function?
13. Comment on ergastic substances.
14. What are medullary bundles? Give example.
15. What are bicollateral vascular bundles? Give example.
16. Brief a note on pollen allergy and its symptoms.
17. Distinguish between heart wood and sap wood.
18. Define a bordered pit.
19. What is meant by extra stelar secondary thickening?
20. Distinguish between exarch and endarch xylem.
21. What is double fertilization?
22. What are the constituents of FAA?

(8 × 2 = 16 Marks)

SECTION – C

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

23. Give the salient features of dicot root.
24. List the diagnostic features of meristematic tissues.
25. Identify the major non- living inclusions of the cell.
26. Discuss the theories of organization of shoot apical meristem.
27. Give the structural peculiarities of a typical dicot embryo.
28. Comment on mounting media. Give examples.
29. Describe the structure and functions of vascular cambium.
30. Draw a labelled diagram of a typical angiosperm ovule.
31. Describe the structure of a typical monosporic embryo sac.

(6 × 4 = 24 Marks)

SECTION – D

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

32. Explain the anomalous secondary growth in *Boerhaavia* with illustrations.
33. Describe the organisation of cell wall and its functions.
34. Give a detailed account on simple and complex tissues.
35. With suitable illustrations, explain the process of microsporogenesis.

(2 × 15 = 30 Marks)