

(Pages : 3)

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Reg. No. :

Name :

First Semester B.Sc. Degree Examination, November 2024

Career Related First Degree Programme under CBCSS

Group 2 (a) – Botany and Biotechnology

Core Course

BB 1141 — ANGIOSPERM ANATOMY AND REPRODUCTIVE BOTANY

(2019 – 2022 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in a word or **one** or **two** sentences. Each question carries **1** mark. Draw diagrams only if specified in the question.

1. What are the components of FAA?
2. Name a natural stain.
3. Define dehydrant.
4. What are pits?
5. What is plasmodesmata?
6. Define apical cell theory.
7. What is periderm?

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8. Mention the function of tapetum.
9. Define double fertilization.
10. Comment on pollen allergy.

(10 × 1 = 10 Marks)

SECTION – B

Answer **any eight** questions. Each question carries **2** marks. Answer not to exceed **1** paragraph.

11. List any four objectives of plant anatomy.
12. Write the composition of Carnoy's fluid.
13. Differentiate between collateral and bicollateral vascular bundles.
14. Comment on natural mounting media with an example.
15. What is cuticle? What is its function?
16. Write a short note on histogen theory.
17. Distinguish chlorenchyma from aerenchyma.
18. What is meant by ring porous wood?
19. Draw the structure of an embryo sac.
20. Differentiate between coleoptile and coleorhiza.
21. Write any four significances of palynology.
22. Briefly describe tetrazolium test of pollen viability.

(8 × 2 = 16 Marks)



SECTION – C

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

23. Briefly explain killing and fixation. Mention its significance.
24. Explain bordered pit with a labelled diagram.
25. Illustrate the TS of a dicot leaf.
26. Comment on tunica-carpus theory.
27. Write a short note on secretory tissue systems with examples.
28. Explain the structure and functions of stomata.
29. Describe the anomalous secondary thickening in *Dracaena*.
30. Explain the Polygonum type of embryo development.
31. Describe the structure of pollen grains.

(6 × 4 = 24 Marks)

SECTION – D

Answer **any two** questions (not more than **3** pages). Each question carries **15** marks.

32. With a labelled diagram, explain the characteristics of dicot stem primary structure.
33. Write an essay on simple tissue systems. Discuss its classification and functions.
34. Describe anomalous secondary thickening in *Boerhaavia* stem with illustrations.
35. Explain non-living inclusions of the cell with suitable examples.

(2 × 15 = 30 Marks)

