

(Pages : 4)

N – 4241

Reg. No. :

Name :

First Semester B.Sc. Degree Examination, June 2022
Career Related First Degree Programme under CBCSS
Group 2 (a) Botany and Biotechnology
BB 1141 : ANGIOSPERM ANATOMY AND REPRODUCTIVE BOTANY
(2020 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** the questions in a word or sentence. **Each** question carries **1** mark.

1. Define plasmodesmata.
2. Expand FAA.
3. What are antipodal cells?
4. Define root hair.
5. What is apical meristem?
6. Define secondary meristem.
7. What are lenticels?
8. What is exine?
9. Define growth rings.
10. What is nucellus?

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B

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

11. Distinguish between heart wood and sap wood.
12. Comment on pollination and its types.
13. Mention the structural peculiarities of a typical monocot embryo.
14. Explain venation. List out the major types.
15. Define megasporogenesis.
16. What are ergastic substances?
17. Comment on pollen allergy.
18. Draw the structure of dicot stomata.
19. Distinguish between collateral and bicollateral vascular bundles.
20. What are pits? Mention the major types.
21. Comment on the arrangement of vascular tissues in roots.
22. What are medullary bundles? Give example.
23. Explain the role of bulliform cells.
24. What are tyloses?
25. Describe the vascular bundle in *Dracaena*.
26. What is triple fusion?

(8 × 2 = 16 Marks)

SECTION – C

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

27. Explain the anomaly in *Bignonia*.
28. What is a meristem? Give the diagnostic features of meristematic tissues.
29. Mention the role of pollen grains in taxonomic studies.
30. Discuss the theories of organization of shoot apical meristem.
31. Write a brief note on killing and fixation.
32. Draw a labelled diagram of a typical angiosperm ovule.
33. Comment on extra stelar secondary thickening.
34. Explain pollination and its types.
35. Give a brief account on mounting media.
36. Describe the structure of a typical monosporic embryo sac.
37. Give the salient features of dicot root.
38. Explain the methods of viability test for pollen grains.

(6 × 4 = 24 Marks)

SECTION – D

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

39. Describe the secondary thickening in dicot stem.
40. Give a detailed account on permanent tissues.

41. Describe the structure and functions of eukaryotic cell wall.
42. Explain the development of a typical monocot embryo with diagrams.
43. Describe the internal structure of monocot leaf. Draw labelled diagram.
44. Comment on the internal structure of a mature anther and explain the process of microsporogenesis.

(2 × 15 = 30 Marks)
