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Reg. No. :

Name :



First Semester B.Sc. Degree Examination, January 2024

Career Related First Degree Programme under CBCSS

Botany and Biotechnology

Core Course – I

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.

1. Define bulliform cells.
2. What is pollenkit?
3. What is tyloses?
4. Who coined the term meristem?
5. What is the function of casparian strips?
6. Name a fixative.
7. What is FDA?
8. Define bisporic embryosac.

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9. What is guttation?
10. What is the function of sporopollenin?

(10 × 1 = 10 Marks)

SECTION – B

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

11. Write short note on quiescent center.
12. Differentiate between simple and bordered pits.
13. Briefly explain cytodifferentiation of sieve tube elements.
14. Describe the process of microsporogenesis in brief.
15. The sieve tubes are living but non-nucleated. Comment.
16. Comment on the triploid nature of angiosperm embryo sac.
17. Differentiate between wood and sap wood.
18. Explain Histogen theory.
19. Comment on secretory tissues.
20. What is endothecium? Explain its function.
21. Differentiate between storied and non-storied cambium.
22. What is mounting media. Give two examples.

(8 × 2 = 16 Marks)

SECTION – C

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

23. Describe meristem. Explain how meristems are classified.
24. With suitable illustration explain the structure of dicot embryo.

25. Comment on various pollination mechanisms shown by angiosperms.
26. Explain the process of double fertilization.
27. What are simple tissues? Give an account on their structure, function and distribution.
28. Explain about various non-living inclusions in plant cell with suitable examples.
29. Give an account on epidermal tissue systems.
30. Explain the principle of staining technique. Add a note on natural stains.
31. Explain primary structure of a dicot root.

(6 × 4 = 24 Marks)

SECTION – D

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

32. With the help of suitable diagram, explain monosporic and bisporic type of embryosac development.
33. Give an illustrated account on the formation of secondary tissue in *Boerhaavia* stem.
34. Explain the organization of the shoot apex by Apical Cell theory and Tunica-Corpus theory.
35. Write an account on permanent tissues.

(2 × 15 = 30 Marks)