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Reg. No. : .....

Name : .....

First Semester B.Sc. Degree Examination, June 2022

First Degree Programme under CBCSS

Botany

Complementary Course (for Home Science) Zoology and Biochemistry

BO 1131 - MICROTECHNIQUE, ANGIOSPERM ANATOMY AND REPRODUCTIVE BOTANY

(2019 Admission)

Time : 3 Hours Max. Marks : 80

(Draw diagram wherever necessary)

SECTION – A

Answer **all** questions. Each question carries **1** mark :

1. What are annual rings?
2. Mention the uses of Acetocarmine.
3. What is Promeristem?
4. Comment on Carnoy's formula.
5. What is syngamy?
6. Name the living cells found in Xylem.
7. What is casparian thickening?

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8. Mention the functions of tapetum.

9. What is xenogamy?

10. What are companion cells?

(10 × 1 = 10 Marks)

SECTION – B

Answer **any eight** of the following. Each questions carries **2** Marks.

11. Comment on the structure of vascular cambium

12. Distinguish between heartwood and sapwood.

13. How will you differentiate vascular bundle of dicot stem from monocot?

14. Give an account of endothecium and its functions.

15. How ring porous wood is formed?

16. Discuss the salient features of collenchyma.

17. Distinguish between amphicribal and amphivasal bundles.

18. Write the salient features of xylem vessels.

19. List the objectives of plant anatomy.

20. Comment on the use of haematoxylin in cytology.

21. How will you prepare FAA?

22. Mention the differences between root apex and shoot apex.

(8 × 2 = 16 Marks)

SECTION – C

Answer **any six** of the following. Each questions carries **4** Marks.

23. Explain the process of microsporogenesis. Add a note on the structure of male gametophyte.

24. Give an account of secondary growth in dicot stem.

25. Comment on Korper-Kappe theory.

26. Discuss the anomalies found in the secondary growth of Boerhaavia stem.

27. Explain the structure of dicot embryo with diagram.

28. Write an account of different types of parenchyma. Add note on their function.

29. Give an account of secretary tissues found in plants.

30. What are stains? Comment on common stains used in anatomy and cytology.

31. Give an account of extra stelar secondary growth in Dicot stem.

(6 × 4 = 24 Marks)

SECTION – D

Write an essay on **any two** of the following, each carries **15** Marks.

32. Discuss secondary growth in dicot root with diagrams.

33. Explain the organization of shoot apex citing various theories.

34. Give an account of tissue systems found in plants.

35. Explain monosporic embryo sac development with diagrams.

(2 × 15 = 30 Marks)
