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Reg. No. : .....

Name : .....

First Semester B.Sc. Degree Examination, March 2023

First Degree Programme under CBCSS

Botany

Complementary Course for Home Science, Zoology and Biochemistry

BO 1131- MICROTECHNIQUE, ANGIOSPERM ANATOMY AND REPRODUCTIVE BOTANY

(2019 – 2021 Admission)

Time : 3 Hours

Max. Marks : 80

(Draw diagrams wherever necessary)

SECTION – A

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

1. Comment on FAA.
2. What are tyloses?
3. Who proposed apical cell theory?
4. Define triple fusion.
5. What is protoxylem lacunae?
6. What is interfascicular cambium?
7. Comment on quiescent centre.

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8. What is endothecium?

9. Mention the abiotic agents of pollination.

10. What is meant by a radial vascular bundle?

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** of the following. Each question carries **2** marks.

11. What are fibres? Mention the types?

12. Distinguish between open and closed vascular bundles.

13. What is calyptra? How it is formed?

14. Why fertilization in angiosperms is called double fertilization?

15. How Carnoy's fluid is prepared?

16. What is tapetum?

17. Distinguish between ring porous wood and diffuse porous wood.

18. What are lenticels? Comment on its functions.

19. Comment on the structure of collenchyma.

20. What are laticifers?

21. Differentiate between ray initials and fusiform initials.

22. What are bulliform cells? Comment on its function.

(8 × 2 = 16 Marks)

SECTION — C

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

23. Give an account of stains and their uses.

24. Explain the structure of anther.

25. Give a brief account on the secondary growth in dicot stem.

26. What are sclerids? Mention the types.

27. Discuss the procedure of double staining.

28. Explain the structure of dicot leaf with diagrams.

29. Discuss the structure of epidermal tissue system.

30. Explain the formation of periderm.

31. Explain tunica corpus theory. Compare it with histogen theory.

(6 × 4 = 24 Marks)

SECTION – D

Write an essay on any **two** of the following. Each carries **15** marks.

32. What are meristems? Classify meristems based on position, origin and functions.

33. Explain anomalous secondary growth in *Boerhaavia* stem with diagrams.

34. Discuss *Polygonum* type of embryosac development with diagrams.

35. Describe the structure of permanent tissues in plants.

(2 × 15 = 30 Marks)