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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, Bio-Chemistry

BO 1131 : MICROTECHNIQUES, ANGIOSPERM ANATOMY AND REPRODUCTIVE BOTANY

(2022 Admission)

Time : 3 Hours Max. Marks : 80

SECTION – A

Answer **all** questions in **one** or **two** sentences. Each question carries **1** mark.

1. What is a fixative?
2. Name two stains used in double staining.
3. What are bicollateral vascular bundles?
4. What are casparian strips?
5. What are medullary rays?
6. What is epiblema?
7. What are lateral meristems? Give an example.
8. What is phellogen?
9. What is porogamy?
10. What is sexual incompatibility?

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B

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

11. What is FAA? Write down its composition.

12. Differentiate between primary meristem and secondary meristem.

13. What are tracheids? Mention its functions.

14. List any two differences between monocot stem and monocot root.

15. What are tyloses?

16. Differentiate between amphivasal and amphicribal.

17. What is a quiescent centre?

18. List the components of ground tissue system.

19. What is a sap wood?

20. What are motor cells? Mention its functions.

21. List the process of fertilization in plants.

22. What are synergids?

(8 × 2 = 16 Marks)

SECTION – C

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

23. Explain composition and uses of safranin and Acetocarmine.

24. What are complex tissues? Briefly explain structure and functions of various components of phloem.

25. Explain the organization of root apex in detail.

26. Compare histogen theory and tunica-corpus theory.

27. Enumerate the identifying features of primary dicot stem.

28. Differentiate between ring porous wood and diffuse porous wood.

29. Draw a neat labelled diagram of lenticel.

30. Explain the features of a dicot embryo.

31. Explain the monosporic type of embryo sac development.

(6 × 4 = 24 Marks)

SECTION – D

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

32. With a labelled diagram explain the anomalous secondary growth in *Boerhaavia*.

33. Explain the structure and functions of simple permanent tissues.

34. With a labelled diagram explain the secondary growth in dicot root.

35. With a labelled diagram explain structure of a mature anther.

(2 × 15 = 30 Marks)
