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Reg. No. : .....

Name : .....

**First Semester B.Sc. Degree Examination, March 2023**

**First Degree Programme under CBCSS**

**Botany**

**Complementary Course**

**BO 1131 : MICROTECHNIQUES, ANGIOSPERM ANATOMY AND  
REPRODUCTIVE BOTANY**

**(2014-2018 Admission)**

Time : 3 Hours

Max. Marks : 80

**SECTION – A**

Answer all questions. Each question carries 1 mark.

1. What is the use of fixative?
2. What is the importance of plant anatomy?
3. What is the function of the root apical meristem?
4. Where is simple permanent tissue found?
5. Write the function of cuticle.
6. What is the primary structure of root?
7. Why is cambium important?
8. What is sapwood of a tree?

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9. What is main function of phellogen?
10. Where are female gametophyte in angiosperms?

(10 × 1 = 10 Marks)

#### SECTION – B

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

11. Name the four layers surround the pollen sac.
12. Which is the opening from where another dehiscence occur?
13. What is Megasporogenesis in angiosperms?
14. Why do plants need pollination?
15. What are lenticels how do they help plants?
16. How does an epidermis become a periderm?
17. Where tyloses are formed?
18. What are annular rings on a tree?
19. What are the components of epidermal tissue system?
20. What is the function of complex tissue in plants?
21. What are histogen layers?
22. How do you make a FAA solution?

(8 × 2 = 16 Marks)

#### SECTION – C

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

23. Briefly explain the Tunica Corpus theory.
24. What are vascular tissues and their functions?

25. What are the anatomical difference between root and stem?
26. Differentiate between ring porus wood and diffused porus wood.
27. Describe polygonum type of embryo sac.
28. What is Microsporogenesis explain with diagram?
29. What is Extrastellar secondary growth?
30. What are vascular bundles mention four types of vascular bundles with example?
31. Where are permanent tissues found in plants?

(6 × 4 = 24 Marks)

#### SECTION - D

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

32. What do you mean by double staining? Give an account on three stains studied by you.
33. Write an essay on classification of meristem based on origin, position and growth pattern.
34. What is anomalous secondary growth in Boerhaavia stem explain with diagram?
35. Describe with diagram the process of double fertilization and state its significances.

(2 × 15 = 30 Marks)