Reg. No .... Name **25U426**

B.Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2025

SEMESTER 4 : BOTANY

COURSE : **19U4CRBOT4 : ANATOMY, MICROTECHNIQUE AND ANGIOSPERM MORPHOLOGY**

(For Regular 2023 Admission and Improvement / Supplementary 2022/ 2021/2020/2019 Admissions)

Time : Three Hours   Max. Marks: 60

PART A
Answer All (1 mark each)

1. What is amphistomatic condition?
2. What is intercalary meristem?
3. What is a fixative?
4. What are lianas?
5. What is smear?
6. What is early wood?
7. What are plasmodesmata?
8. What are adventitious roots?

                                                              (1 x 8 = 8)

PART B
Answer any 6 (2 marks each)

9. What is lysigenous cavity?
10. What is Fast Green?
11. What are astrosclereids?
12. Differentiate between early wood and late wood.
13. The vascular cambial ring in a typical dicot root is purely secondary in origin. Justify.
14. Differentiate between simple and bordered pits.
15. Explain how you distinguish umbel and corymb inflorescences.
16. Differentiate between ring porous and diffuse-porous wood.
17. What are mounting media? Give an example.
18. Define epicalyx. Mention the name of a plant family in which you see epicalyx.

                                                              (2 x 6 = 12)

PART C
Answer any 4 (5 marks each)

19. Compare the primary structure of dicot and monocot root.
20. Explain the classification of meristems on the basis of their origin.
21. What is reaction wood? Differentiae between tension wood and compression wood.
22. Write an account on phyllotaxy.
23. What are vital stains? Explain the commonly used vital stains in microtechnique.
24. What are pits? What are the different types?

                                                              (5 x 4 = 20)

PART D
Answer any 2 (10 marks each)

25. Discuss the mechanism by which dicot stems increase their girth.

26. What is simple permanent tissue? What are the different types? Explain with suitable diagrams.

27. Write an essay on different types of inflorescences. Cite examples for each type.

28. Write an essay on different types of Dry, Multiple and Aggregate fruits. Draw labelled diagrams with examples for each type.

(10 x 2 = 20)