Reg. No ....   Name **23U424**

B. Sc. DEGREE END SEMESTER EXAMINATION : MARCH 2023
SEMESTER 4 : BOTANY
COURSE : **19U4CRBOT4 : ANATOMY, MICROTECHNIQUE AND ANGIOSPERM MORPHOLOGY**
(For Regular - 2021 Admission and Improvement / Supplementary - 2020 / 2019 Admissions)

Time : Three Hours   Max. Marks: 60

PART A
Answer All (1 mark each)

1. Give an example of a living mechanical tissue.
2. What is Hilum?
3. Give an example for a natural stain.
4. Define heartwood.
5. What is Bark?
6. Give the source of Canada balsam.
7. What is dichasial cyme?
8. Define cremocarp.

                                                                                      (1 x 8 = 8)

PART B
Answer any 6 (2 marks each)

9. Differentiate between Sledge microtome and Rotary microtome.
10. Differentiate between simple and bordered pits.
11. What is the use of maceration technique?
12. Differentiate basifixed and adnate anthers.
13. Briefly explain the economic importance of plant fibres. Give an example.
14. What is Lysigenous cavity?
15. What is passage cell?
16. Differentiate between early wood and late wood.
17. What is the difference between hard wood and soft wood?
18. Differentiate Monadelphous and Diadelphous condition.

                                                                                      (2 x 6 = 12)

PART C
Answer any 4 (5 marks each)

19. Neutral Red and Evan's Blue can be used to stain living tissues. Explain.
20. What are the different types of secretory products in a plant cell?
21. With the help of suitable diagrams, explain the structure and function of Sieve elements and Companion cells.
22. What is Reaction wood? Differentiae between tension wood and compression wood.
23. With the help of suitable diagrams differentiate cyathium and Hypanthodium inflorescences.
24. With the help of a suitable diagram explain the primary structure of monocot stem.

                                                                                      (5 x 4 = 20)

PART D
Answer any 2 (10 marks each)

25. Explain the normal secondary growth in dicot root.

26. With the help of suitable diagrams, explain the different types of racemose inflorescence.

27. Write an account on secretory tissues? Explain the different types of secretory tissues in plants.

28. How do you define a fruit? What are the different types of fruits? Give examples for each type.

(10 x 2 = 20)