Reg. No ..... Name **23U459**

B. Sc. DEGREE END SEMESTER EXAMINATION : MARCH 2023

SEMESTER 4 : COMPLEMENTARY BOTANY FOR ZOOLOGY

COURSE : **19U4CPBOT4 : ANATOMY AND APPLIED BOTANY**

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

Time : Three Hours Max. Marks: 60

PART A

Answer All (1 mark each)

1. What is scalariform wall thickening?
2. Name a plant which shows polyembryony.
3. Name any two gelling agents used in tissue culture medium.
4. What is interspecific hybridization?
5. What is velamen root?
6. Define bicollateral vascular bundle.
7. What is pericycle?
8. What is periderm?

(1 x 8 = 8)

PART B

Answer any 6 (2 marks each)

9. What are floaters in a hydrophytes.
10. Differentiate intususeption and apposition.
11. Explain quarantine rules.
12. What are different types of layering?
13. Summarize the qualities required for the coating of synseeds.
14. Compare the vascular tissues in dicot and monocot roots.
15. Why colchicine is used in polyploidy breeding?
16. Differentiate heart wood and sap wood.

(2 x 6 = 12)

PART C

Answer any 4 (5 marks each)

17. Explain salient anatomical features of a monocot stem.
18. With the help of suitable diagrams explain different types of collenchyma.
19. Discuss various objectives of plant breeding.
20. Discuss the steps in surface sterilization of explant.
21. Discuss various methods of budding with suitable diagrams.
22. Explain the role of cambium in wound healing and budding.

(5 x 4 = 20)

PART D

Answer any 2 (10 marks each)

23. With the help of suitable diagrams explain the secondary thickening process in dicot stem.
24. Write an essay on the morphological and anatomical adaptations of xerophytes and epiphytes.

25. “Polyploidy breeding is a special method of plant breeding”. Discuss it.

26. Discuss the significance, procedure, merits and demerits of plant introduction. Add a note on its achievements.

(10 x 2 = 20)