Turn Over

QP CODE: 25020258

Reg No	:	
Name	:	

B.Sc DEGREE (CBCS)) REGULAR/ IMPROVEMENT/ REAPPEARANCE / MERCY CHANCE EXAMINATIONS, FEBRUARY 2025

Fourth Semester

Complementary Course - BO4CMVT4 - BOTANY - ANATOMY AND APPLIED BOTANY

(Common for B.Sc Zoology Model II Aquaculture, B.Sc Zoology Model II Food Microbiology & B.Sc Zoology Model II Medical Microbiology)

2017 Admission Onwards

2AB8276F

Time: 3 Hours

Max. Marks : 60

Part A

Answer any **ten** questions.

Each question carries **1** mark.

- 1. Define torus.
- 2. What is embryonal meristem?
- 3. Define protoxylem.
- 4. Differentiate exarch and endarch xylem.
- 5. Define cork cambium.
- 6. What is meant by annual ring?
- 7. How mucilage coating is beneficial for hydrophytes?
- 8. What is velamen root? What is its function?
- 9. What is acclimatization?
- 10. What is micropropagation?
- 11. What is regeneration in tissue culture?
- 12. What is culture medium in plant tissue culture? Give one example?

(10×1=10)

Part B

Answer any **six** questions. Each question carries **5** marks.

- 13. With a labeled diagram explain the structure and function of plasmodesmata.
- 14. Write notes on the non living inclusions of plants.
- 15. What are the anomalies found in secondary thickening of Bignonia stem?
- 16. Differentiate between Heart wood and Sap wood.
- 17. Explain the anatomical adaptations observed in Nerium leaf with suitable diagram.
- 18. What is hybrid vigour? What is its importance in plant breeding?
- 19. Explain the role of cambial activity in budding.
- 20. What are the methods used for sterilization of explant?
- 21. What is synthetic seed? Explain the process of its synthesis and its advantages.

(6×5=30)

Part C

Answer any **two** questions. Each question carries **10** marks.

- 22. Define secretory tissues. Explain different types of secretory tissues.
- 23. Explain the steps involved in the secondary growth in dicot root. How it differ from the secondary growth of dicot stem?
- 24. Explain the various hybridization techniques in plant breeding.
- 25. Give detailed account on the applications of plant tissue culture.

(2×10=20)