



B.Sc DEGREE (CBCS) EXAMINATIONS, OCTOBER 2021

Fourth Semester

B.Sc Zoology Model I

Complementary Course - BO4CMT04 - BOTANY - ANATOMY AND APPLIED BOTANY

2019 Admission only C33E7526

Time: 3 Hours Max. Marks: 60

Part A

Answer any **ten** questions.

Each question carries **1** mark.

- 1. What are the components of cell wall?
- 2. What is plasmodesmata?
- 3. Define primary meristems.
- 4. What are complex tissues?
- 5. What is protoxylem cavity or protoxylem lacuna?
- 6. Differtentiate between heart wood and sap wood.
- 7. What is the most important adaptation seen in hydrophytes?
- 8. Give any two centres in India concerned with plant introduction.
- 9. Give two examples of mass selection.
- 10. Give an example for interspecific hybridisation.
- 11. What is scion?
- 12. Name the phenomenon of formation of embryos from callus in tissue culture.

 $(10 \times 1 = 10)$

Part B

Answer any six questions.

Each question carries 5 marks.

- 13. Explain non-living cell inclusion.
- 14. Distinguish between meristamatic and permanent tissues.
- 15. Explain simple permanent tissues.



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- 16. With the help of labelled diagram ,Explain the structure of Monocot root.
- 17. Differentiate Dicot and monocot leaf.
- 18. What are the morphological and anatomical specialities of Vanada as an epiphyte?
- 19. What is the role of cambium in budding and grafting?
- 20. Briefly describe the steps involved in micropropagation.
- 21. Describe the applications of plant tissue culture.

 $(6 \times 5 = 30)$

Part C

Answer any two questions.

Each question carries 10 marks.

- 22. With suitable examples, write an essay on secretory tissues.
- 23. Explain the secondary growth in dicot root with the help of diagram.
- 24. With the help of labelled diagram describe anomalous secondary growth in Bignonia.
- 25. Give an account on the objectives of plant breeding.

(2×10=20)

