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PLANT ANATOMY AND EMBRYOLOGY

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Time : Three hours

Maximum : 100 marks

## PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Cell wall.
2. Conjunctive tissue.
3. Xylem and phloem.
4. Tapetum.
5. Embryosac.
6. Metaxenia.
7. Radicle.
8. IAA.
9. Plant Galls.
10. Pericarp.

**PART B — (7 × 5 = 35 marks)**

Answer any SEVEN questions.

11. Explain the theories of organization of meristems.
12. Write a note on Anomalous growth types.
13. Describe the cytology and functions of anther wall and tapetum.
14. Write a short note on structure and development of ovule.
15. Briefly explain the cytology of xenia and meta xenia.
16. Write a brief note on sexual incompatibility.
17. Write a short notes on preembryo and primitive embryo.
18. Give an account on prospects and significance of anther culture methods.
19. Write a brief note on physical factors in fruit development.
20. Write a short note on structure of parthenocarp.

**PART C — (3 × 15 = 45 marks)**

Answer any THREE questions.

21. Write an essay on secondary combium.
22. Describe the significance and culture methods of ovary, ovule, nucellus and embryo.
23. Write an essay on Female gametophyte.
24. Describe the isolation, culture and its importance of protoplast.
25. Write a detailed note on the role of IAA in differentiation and explain what are the factors influencing morphogenesis.