# M.Sc.DEGREE EXAMINATION, APRIL 2020 I Year II Semester Plant Anatomy, Embryology and Palynology

Time: 3 Hours Max.marks:75

### **Section A** $(10 \times 2 = 20)$ Marks

### Answer any **TEN** questions

- 1. Cork cambium
- 2. Korper-Kappe theory
- 3. Differentiate heart wood and sap wood
- 4. Tyloses
- 5. Non-storied cambium
- 6. Unilacunar three traces node
- 7. Amphiphloic siphonostele
- 8. Polyembryony
- 9. Campylotropous ovule
- 10. Secretary tapetum
- 11. Nemec phenomenon
- 12. Melittopalynology

# **Section B** $(5 \times 5 = 25)$ Marks

## Answer any **FIVE** questions

- 13. What are the three meristems? Explain briefly their differentiation.
- 14. Explain the method of maceration. Add a note on the elements obtained out of the technique.
- 15. Write a note on secondary xylem. Add note on wall patterns.
- 16. Comment on the vascular system of the floral parts.
- 17. What are the types of endosperms? Explain the helobial endosperm in detail.
- 18. List out the methods to overcome self-incompatibility in plants.
- 19. Explain NPC of pollengrains in angiosperms.

## **Section C** $(3 \times 10 = 30)$ Marks

## Answer any **THREE** questions

- 20. Give an account on shoot organization and the theories.
- 21. Describe the ontogeny, differentiation and structural variation of phloem elements.
- 22. Write an essay on the types of steles.
- 23. Explain the structure of embryosac. Add a note on its types.
- 24. Write a detailed account on the methods of pollination in plants.

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