

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2025
(Regular/Improvement/Supplementary)

BOTANY
FBOT1C03- ANGIOSPERM ANATOMY, ANGIOSPERM EMBRYOLOGY,
PALYNOLOGY AND LAB TECHNIQUES

Time: 3 Hours

Maximum Weightage: 30

Part A: Answer any *four* questions. Each carries *two* weightage.

1. What is plasmodesmata?
2. Define Parthenocarpy.
3. Comment on sporopollenin.
4. Explain the role of cambium.
5. What are the roles of Synergids in fertilization?
6. Explain FAA.
7. What are Bulliform cells?

(4 × 2 = 8 weightage)

Part B: Answer any *four* questions. Each carries *three* weightage.

8. Explain extrastelar secondary growth in dicot stem.
9. Comment on the role of tapetum in pollen development.
10. Write the significance of Pollen- Pistil interaction.
11. Discuss how Phloem differentiation is regulated.
12. Describe the structure of pollen wall with suitable diagram.
13. Explain the importance of anatomy in taxonomic problem solving.
14. Describe the common Histochemical tests.

(4 × 3 = 12 weightage)

Part C: Answer any *two* questions. Each carries *five* weightage.

15. Explain the structure, development and components of cell wall.
16. Describe the ultra-structure and types of embryo sacs in angiosperms.
17. Write an essay on applied palynology.
18. Explain the method of embedding plant materials in paraffin wax. Add a note on double staining method.

(2 × 5 = 10 weightage)