

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2023
(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. Describe the structure of Plasmodesmata.
2. Explain the role of tapetum in pollen development.
3. Comment on Forensic Palynology.
4. Describe the importance of Fulgen reaction.
5. What is cork cambium?
6. Comment on lignin and suberin.
7. Explain Parthenocarpy.

(4 × 2 = 8 weightage)

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

8. Explain the role of anatomy in taxonomic problem solving.
9. Comment on pollen pistil interaction.
10. Explain exine stratification and ornamentation.
11. Explain the procedure of double staining.
12. Comment on polyembryony.
13. Write a note on the role of synergids.
14. Describe different types of fixatives used in microtechnique.

(4 × 3 = 12 weightage)

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

15. Compare the stellar and extra stellar secondary growth in dicot stem and root.
16. Describe the role of meristem and cambium in plant development.
17. Write an essay on the development on dicot and monocot embryo.
18. Explain the morphology and biochemistry of pollen.

(2 × 5 = 10 weightage)