D1ABT2203 **(1 Page)** **Name.....**
Reg.No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2022
(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. Comment on residual meristem.
2. Differentiate between leaf gap and leaf trace.
3. How unifacial and centric leaves are differentiated?
4. What is prime exine?
5. How will you identify the bark from cork during secondary growth?
6. Elucidate the ultra structure of egg cell.
7. What is vital stain? How is it important in lab techniques?

(4 × 2 = 8 weightage)

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

8. Describe the ultra structure of xylem.
9. Critically evaluate the role of palynology in forensic medicine and oil exploration.
10. Write an account on pollen-pistil interactions.
11. Give an account of the role of cambium and its derivatives in tissue differentiation.
12. Briefly explain the types of polyembryony found in angiosperms. Mention its applications.
13. What is killing and fixing? Explain the properties of chemical reagents used for.
14. Describe the histochemical methods for localization of lipids in plant tissues.

(4 × 3 = 12 weightage)

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

15. What is endosperm? Explain the types and endosperm haustoria with proper illustrations.
16. What is node anatomy? Explain its various patterns with examples and diagrams.
17. Explain the process of preparing permanent slides using Rotary microtome.
18. Briefly explain the ultra structure of pollen wall and its development.

(2 × 5 = 10 weightage)