

20P130

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Name:

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2020

(CUCSS-PG)

(Regular/Supplementary/Improvement)

**CC19P BOT1 C03 - ANGIOSPERM ANATOMY, EMPRYOLOGY, PALYNOLOGY
& LAB TECHNIQUES**

(Botany)

(2019 Admission onwards)

Time: Three Hours

Maximum: 30 Weightage

I. Answer any *four* questions. Each question carries 2 weightage.

1. Write a note on the interconversion of fusiform initial and ray initial?
2. Explain nodal patterns with examples.
3. Explain heterospory in microsporogenesis.
4. What is filiform apparatus? What are its roles?
5. Describe the practical value of polyembryony.
6. What is paleopalynology? Comment on its role in oil exploration.
7. Differentiate killing from fixing of plant tissue.

(4 x 2 = 8 Weightage)

II. Answer any *four* questions. Each question carries 3 weightage.

8. Describe the anatomy of different types of leaves.
9. Describe the ultrastructure of sieve tube element and companion cells.
10. Write an account on anomalous secondary thickening seen in storage roots.
11. What are the significance of experimental embryology?
12. Describe the self incompatibility in angiosperms.
13. Give detailed notes on Endosperm Haustoria.
14. What is ultramicrotome? Explain the method of embedding for electron microscopy.

(4 x 3 = 12 Weightage)

III. Answer any *two* questions. Each question carries 5 weightage.

15. Write an essay on the chemistry of secondary cell wall and various patterns of thickening.
16. Explain different types of embryosac and their development.
17. Explain contributions of G. Erdtman in palynology.
18. Explain different types of stains and staining methods used in plant anatomy.

(2 x 5 = 10 Weightage)
