

**22P130**

(Pages: 2)

Name: .....

Reg.No: .....

**FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2022**

(CBCSS - PG)

(Regular/Supplementary/Improvement)

**CC19P BOT1 C03 - ANGIOSPERM ANATOMY, ANGIOSPERM EMBRYOLOGY, PALYNOLOGY  
AND LAB TECHNIQUES**

(Botany)

(2019 Admission onwards)

Time : 3 Hours

Maximum : 30 Weightage

**Part-A**

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

1. Differentiate between phragmoplast and phragmosome.
2. How does anatomical differentiation occur in mesocotyle region of seedling?
3. Differentiate compression wood from tension wood.
4. What is residual meristem?
5. Explain pollen mitosis.
6. How do the ubisch bodies assist the pollen development?
7. What is a clearing agent? Give an example.

**(4 × 2 = 8 Weightage)**

**Part-B**

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

8. Describe the ultra structure of xylem.
9. Explain the process of anomalous secondary growth in a named storage root.
10. Describe the effect of leaf trace on stele and pits.
11. Distinguish the structure of monocot embryo from dicot embryo.
12. Explain mellisopalynology and its uses.
13. What is microtome? Add a note on different type of microtomes.
14. What is double stanining? Mention one method.

**(4 × 3 = 12 Weightage)**

### **Part-C**

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

15. Anatomical characters have been utilized to solve many taxonomic problems. Explain with suitable examples.
16. Write an essay on experimental embryology.
17. Write an essay on recent advances in palynological studies.
18. Describe the method of embedding plant tissues in paraffin wax using TBA.

**(2 × 5 = 10 Weightage)**

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