

18P130

(Pages: 2)

Name:

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2018

(CUCSS-PG)

**CC18P BO1 C03 - ANGIOSPERM ANATOMY, EMBRYOLOGY, PALYNOLOGY
AND LAB TECHNIQUES**

(Botany)

(2018 Admission Regular)

Time: Three Hours

Maximum: 36 Weightage

PART A

Answer *all* questions. Each question carries 1 weightage.

1. Explain the importance of nodal anatomy.
2. Describe stomatal types in Dicots.
3. What is the function of Plasmodesmata?
4. Describe the structure of phloem.
5. Give an account of the components of mechanical tissue in a woody stem.
6. Explain the principles of a Camera lucida.
7. What differences do you find between Acid dye and Basic dye? Give examples.
8. Explain the important steps involved in preparing permanent slides of soft materials.
9. What is the difference between Killing and Fixing?
10. Distinguish quadrant embryo from octant embryo.
11. What is prime exine?
12. What are the functions of endothecium ?
13. Distinguish between apomixis and amphimixis.
14. What is a coenomegaspore?

(14 × 1 = 14 Weightage)

PART B

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

15. Describe the origin and structure of a Periderm.
16. Briefly describe the main evolutionary trends in the specialization of xylem in angiosperms.
17. Describe the working of a rotary microtome.
18. Explain the anomalous secondary thickening in the stem of *Dracaena* with the help of a diagram.
19. Write the procedure of preparation of maceration of slides for plant materials.

20. Briefly describe the role of cambium and their derivatives on tissue differentiation.
21. Explain NPC System.
22. Write notes on Megasporogenesis.
23. Explain meiotic palynology and its uses.
24. Explain Oenothera type of embryo sac development.

(7 × 2 = 14 Weightage)

PART C

Answer any *two* questions. Each question carries 4 weightage.

25. Give a note on anatomy in relation to taxonomy.
26. Write an essay on recent advances in palynological studies.
27. Enumerate the classification, composition and specific uses of various stains.
28. Describe the development of dicot embryo.

(2 × 4 = 8 Weightage)
