

Name:

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXTERNAL EXAMINATION FEBRUARY 2016

(2015 Admission)

CC15P BO1 C03 – Angiosperm Anatomy, Embryology, Palynology & Lab Techniques

(Botany)

Time: 3 hrs

Max. Weightage: 36

I. Answer all questions briefly.

1. What are plasmodesmata? Mention their functions.
2. Distinguish between unifacial and bifacial leaves with examples.
3. Mention the chemical constituents of secondary wall.
4. What is residual meristem?
5. Differentiate paracytic stomata from diacytic stomata with examples.
6. Enumerate the cell types in vascular cambium.
7. Explain the role of palynology in forensic medicine.
8. Differentiate Aeropalynology from Mellitopalynology and its uses.
9. Explain NPC system.
10. What is parthenocarpy?
11. Differentiate between two “ male germ unit”.
12. Distinguish Apomixes from Amphimixis.
13. Differentiate killing from fixing of plant tissues.
14. What is maceration?

(14 x 1 = 14 weightage)

II. Answer any seven questions in not more than 100 words

15. Explain the anomalous secondary growth in Beet root.
16. Describe the phylogenetic consideration of nodal patterns.
17. What is the role of cambium in wound healing and grafting?
18. Briefly describe wood anatomy.
19. Explain Oenothera type of embryosac development.
20. Describe the practical value of polyembryony.
21. Describe the physiology and cytology of endosperm.
22. Explain the paleopalynology and its role in oil exploration.
23. Explain the embedding of plant materials for electron microscopy.
24. Give a brief account on vital staining.

(7 x 2 = 14 weightage)

III. Answer any two question in 300 words each

25. Write an account on anatomy in relation to taxonomy.
26. What is endosperm? Explain different types of endosperm haustoria.
27. Elucidate experimental embryology and its significance.
28. Elucidate the ultra structure of phloem and add a note on transfer cells.

(2 x 4 = 8 weightage)
