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## FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2016

(Regular/Supplementary/Improvement)

(CUCSS-PG)

# CC15P BO1 C03 – ANGIOSPERM ANATOMY, EMBRYOLOGY, PALYNOLOGY AND LAB TECHNIQUES

(Botany)

(2015 Admission Onwards)

Time: Three Hours Maximum: 36 Weightage

### I Answer <u>all</u> questions briefly:

- 1. What is wound periderm?
- 2. Transfer cells.
- 3. What is reaction wood?
- 4. Elucidate conversion of fusiform initials to ray initials.
- 5. Differentiate Paracytic stomata from Diacytic stomata.
- 6. Ruminate endosperm.
- 7. What is filiform apparatus?
- 8. Briefly explain polyembryony.
- 9. Distinguish Apomixis from Amphimixis.
- 10. Mellitopalynology.
- 11. Stenopalynous taxa.
- 12. Give the composition and use of FAA.
- 13. Micrometry.
- 14. What is a clearing agent? Give an example.

 $(14 \times 1 = 14 \text{ weightage})$ 

#### II Answer any 7 questions each in not more than 100 words:

- 15. Explain the control of differentiation of phloem.
- 16. Elucidate the anomalous secondary growth in storage roots.
- 17. Explain the phylogenetic considerations of nodal anatomy.
- 18. Describe Allium type of embryosac development.
- 19. Evaluate the role of embryology in taxonomy.
- 20. Write an account of haploid plant production through experimental embryology.
- 21. Enumerate the contributions of P.K.K. Nair in the field of palynology.
- 22. Elucidate the development and structure of pollen wall.

- 23. Give a brief account on vital staining.
- 24. What is microtome? Add a note on different types of microtome.

 $(7 \times 2 = 14 \text{ weightage})$ 

# III Answer <u>any 2</u> questions in 300 words:

- 25. Write an account on wood anatomy.
- 26. Write an account on structure and development of typical dicotyledonous embryo.
- 27. Enumerate the recent advances in palynological studies.
- 28. Give a detailed account on classification, composition and uses of stains.

 $(2 \times 4 = 8 \text{ weightage})$ 

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