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First Semester B.Sc. Degree Examination, July 2022

First Degree Programme Under CBCSS

Botany

Complementary Course

BO 1131 – MICROTECHNIQUE, ANGIOSPERM ANATOMY AND REPRODUCTIVE BOTANY

(2014-2018 Admission)

Time : 3 Hours Max. Marks : 80

I. Answer **all** questions in **one** word or sentence

1. What is FAA?
2. What you mean by Negative Staining.
3. Which is the commonly used stain for observing Nucleus in Cells?
4. Define Meristem
5. Name a lateral meristem involved in Secondary growth
6. What are Histogens?
7. Define Tyloses
8. What is Endothecium?

P.T.O.

9. What is Stomium?

10. Explain triple fusion.

(10 × 1 = 10 Marks)

II. Answer any **eight** questions, not exceeding one paragraph.

11. What are Pro-Ubisch Bodies?

12. What are synergids?

13. What is chalazogamy?

14. What is the peculiarity of ploidy in Endosperm of Angiosperms

15. Explain Nucellus.

16. Evaluate the role of tyloses in Wood.

17. What is the significance of Phellogen in Tree growth?

18. Evaluate the advantages of Vessels over Tracheids in conduction of water

19. What is the quiescent center? what is its role?

20. What is Double Staining? comment on its advantages.

21. Differentiate between sclereids and fibers.

22. Comment on Various cell inclusions of Mineral origin.

(8 × 2 = 16 Marks)

III. Short Essay (Answer any **six** questions)

23. Differentiate between secretary and Amoeboid tapetum

24. What are the different types of Vascular bundles present in plants

25. Write a Short note on secretory tissue in Plants

26. Judge the advantages and disadvantages of Tunica Corpus theory

27. Critically evaluate the advantages of Collenchyma as a Living mechanical tissue

28. "The Contents of Parenchyma Cells are a Reflection of the Activities of the Cells. Substantiate this statement

29. List out the characteristic features of meristematic cells

30. Comment on the scope of anatomy in Taxonomy

31. Explain how Carnoy's fluid is Prepared, Provide its specific uses.

(6 × 4 = 24 Marks)

IV. Essay (Answer any **two** questions)

32. With suitable illustrations explain the anomalous secondary growth in *Boerhaavia*, Comment on its role in adaptability of this Plant

33. Discuss various theories involved in organisation of Shoot and Root Apex

34. With suitable Illustrations discuss the Characteristics and functions of Different Permanent tissues that you have studied.

35. Ilustrate the Monosporic embryo sac development with Special emphasis on Structure of Embryo sac

(2 × 15 = 30 Marks)