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First Semester B.Sc. Degree Examination, June 2022

First Degree Programme under CBCSS

Botany

Core Course

BO 1141 : ANGIOSPERM ANATOMY, REPRODUCTIVE BOTANY AND PALYNOLOGY

(2019 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in a word or **one** or **two** sentences. **Each** question carries **1** mark.

1. Define Mellittopalynology.
2. What is peculiar about the ploidy of Endosperm?
3. What is Nucellus?
4. Concentric vascular bundles can be seen in ————————.
5. What are Brachysclereids?
6. Define Phellogen
7. Name a secondary thickening wall material.

P.T.O.

8. Bicollateral vascular bundle is characteristic of the family?

9. What is Diacytic stomata?

10. The science of determining age of a tree counting the annual rings are known as _____.

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions. **Each** question carries **2** marks. (Answer not to Exceed One paragraph)

11. Describe antipodal cells.

12. Differentiate between heartwood and sapwood.

13. Describe Histogen theory.

14. Short note on Companion cells.

15. What is the Closing layer in lenticels?

16. Short note on Essential oils.

17. What is Graminaceous stomata?

18. Describe the anatomy of Monocot leaf.

19. Differentiate between Integument and Funiculus.

20: What are Tyloses?

21. Illustrate the wall stratification in Pollen.

22. Describe the development of Monosporic embryo sac with a suitable example.

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** questions. **Each** question carries **4** marks. (Answer not to exceed **120** Words)

23. Illustrate the structure of Lenticels.

24. Write a short Note on Intercalary meristem.

25. Differentiate between amoeboid and secretory tapetum.

26. Illustrate the structure of Monocot embryo.

27. Give a short account on Helobial endosperm.

28. Describe Laticifers.

29. Write Short Note on Forensic Palynology.

30. Write Short Note on Pollen allergy.

31. Elaborate the Economic and Taxonomic Significance of Palynology.

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions in not more than **three** pages. **Each** question carries **15** marks.

32. Describe in detail different types of Embryo sac development.

33. With suitable illustrations describe the anomalous secondary growth in *Bignonia*.

34. Describe the Normal secondary growth in Dicot Root.

35. With Suitable illustration provide detailed structure of the Cell wall.

(2 × 15 = 30 Marks)
