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S – 2710

Reg. No. : .....

Name : .....

First Semester B.Sc. Degree Examination, January 2024

First Degree Programme under CBCSS

Botany

Core Course I

BO 1141 : ANGIOSPERM ANATOMY, REPRODUCTIVE BOTANY AND PALYNOLOGY

(2019–2021 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

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

1. What is an aerenchyma?
2. List any two functions of sclerenchyma.
3. What are calcium carbonate crystals?
4. What is dendrochronology?
5. List any two non-nitogenous excretory products.
6. Name any two plants which can yield oil.
7. What is tunica-corpus theory?
8. What is a heart wood?
9. What is helobial endosperm?
10. Differentiate between fenestrate and syncolpate.

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B

Answer any **eight** of the following. Each question carries **2** marks.

11. Enlist the characteristic features of raphides.

12. List the features of diffuse porous wood.

13. What is a tissue? Mention its functions.

14. What are tannins? Give an example.

15. What are pits? Mention different types of it.

16. Differentiate between anomocytic and anisocytic stomata.

17. What is apical cell theory?

18. Mention the anomaly seen in *Bignonia*.

19. List any two functions of cambium.

20. What is lignin? Mention its functions.

21. Explain the process of pollen grain germination.

22. What is tapetum? Mention its functions.

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** of the following. Each question carries **4** marks.

23. Explain various secretory products seen in plants.

24. Briefly explain structure and functions of various components of xylem.

25. What is a glandular tissue? Explain various types of it.

26. With diagrams explain various types of vascular arrangement.

27. Differentiate between hard wood and soft wood.

28. Enumerate the identifying features of monocot leaf.

29. Explain the formation of periderm.

30. Draw a neat labelled diagram of *Capsella* embryo.

31. Write a brief account on pollen aperture morphology. Mention its significance.

(6 × 4 = 24 Marks)

SECTION – D

Write essay on any **two** of the following. **Each** question carries **15** marks.

32. Write a detailed account on gross structure of a plant cell wall.

33. Explain the various ground tissue system with diagrams.

34. With a labelled diagram explain the anomalous secondary growth in *Boerhaavia*.

35. With a labelled diagram explain the development of *Adoxa* type of embryosac.

(2 × 15 = 30 Marks)
