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S – 2711

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

(2022 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

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

Write short notes on

1. Secondary wall of plant cells
2. Lignification
3. Plasticity
4. Tyloses
5. Companion cells
6. Fascicular cambium

P.T.O.

7. Exarch condition of vascular bundles
8. Pollen mitosis
9. Tapetum
10. Chalazogamy

(10 × 1 = 10 Marks)

SECTION – B

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

11. Describe the structure of mature plant cell wall.
12. What is suberization?
13. Comment of the different types of starch grains seen in angiosperms.
14. Explain Korper-Kappe theory of root apex organisation.
15. Which are the different functions of stomata in plant leaf tissues?
16. What is ring porous wood?
17. How is anomalous secondary growth different from normal secondary growth?
18. Describe the structure of cambium.
19. Briefly explain anther dehiscence.
20. What is nuclear endosperm?
21. Draw the sketch of an anatropus ovule and mark its parts.
22. Explain the different types of meristems classified according to its position.

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** of the following questions.

23. Briefly explain the Histogen Theory of organization in root.
24. Explain the epidermal tissue organization seen in angiosperms.
25. Describe periderm formation.
26. What are annual rings? What is its significance?
27. Briefly explain any four differences between monocot and dicot stem?
28. What is anomalous secondary growth? Explain.
29. Describe the structure of dicot embryo.
30. Explain different types of ovules with diagrams.
31. Describe the economic importance of pollens.

(6 × 4 = 24 Marks)

SECTION – D

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

32. Describe the organization of plant cell wall. Comment on non living inclusions. With the help of diagrams explain secondary phloem elements.
33. Describe the types of vascular organisation.
34. Describe the anomalous secondary thickening in Dracaena.
35. Explain megasporogenesis and Polygonum type of embryo sac development.

(2 × 15 = 30 Marks)