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Reg. No. : .....

Name : .....

First Semester B.Sc. Degree Examination, March 2023

First Degree Programme under CBCSS

Botany

Core Course

BO 1141 : ANGIOSPERM ANATOMY, REPRODUCTIVE BOTANY AND PALYNOLOGY

(2019-2021 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

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

1. The thickening on the Radial wall of Endodermis is known as _____?
2. Name the parenchyma cells having chloroplast.
3. Calcium oxalate crystal in Araceae responsible for Itching is known as _____?
4. Which is the Living mechanical tissue?
5. The cement material sticking the plant cells together is _____?
6. What is interfascicular cambium?
7. What are the components of Periderm.

8. What is tapetum?

9. What is stomium?

10. Define obturator.

(10 × 1 = 10 Marks)

SECTION – B

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

11. List the different kinds of secondary wall thickening in Tracheids.

12. What are Passage cells?

13. Write a short note on Ubisch bodies.

14. Describe NPC system?

15. Explain Korper Kappe theory.

16. Differentiate storied and non storied cambium.

17. What is Endothelium.

18. Explain Epistase and Hypostase.

19. Explain triple fusion?

20. Describe the structure of Primary Cell wall.

21. Differentiate between protoxylem and Metaxylem.

22. Write an example for the use of Anatomy in Plant Taxonomy.

(8 × 2 = 16 Marks)

SECTION – C

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

23. What are Synergids, Describe with illustrations.

24. Outline the Development of Tetrasporic Embryo sac with an Example.

25. Illustrate the structure of Dicot embryo.

26. Describe the structure of dicot root with illustration.

27. What is Double fertilisation? Explain its event in detail.

28. Briefly outline the Major contributions made by P.Maheswary to the field of Embryology.

29. What are the different types of stomata seen in dicot plants?

30. Describe the structure of Bicollateral Vascular Bundle.

31. Differentiate between fusiform and ray initials.

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. Each question carries **15** marks.

32. Criticallly evaluate the various theories that you have studied on organisation of apical meristem.

33. Elaborate the different types of complex permanent tissues.

34. What are the different types of Endosperms, Comment on endosperm haustoria, Draw illustrations wherever necessary.

35. Describe the anomalous secondary growth in *Boerhaavia* with illustrations.

(2 × 15 = 30 Marks)