

Subject Title: Plant Anatomy Embryology & Palynology

Year: II

Semester: IV

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Unit - I: Plant Anatomy

1. Describe various theories regarding the organisation of Stem apex
2. Theories regarding the organisation of Root apex
3. Describe the structure, distribution and function of different types of Simple tissue
4. What are Special tissues.describe its various types

Unit - II: Wood Anatomy

5. What is Anamolous secondary growth ?Explain its various reasons in Dicots and Monocots
6. Anamolous secondary growth in A) Boerhaavia stem B) Bignonia stem C) Draceana stem
7. Write an account on the physical and chemical properties of wood and add a note on its uses
8. Give the importance of Teak as timber plant.Mention the properties of teak wood

Unit III- Embryology

9. Give an account of Microsporogenesis in angiosperms
10. Development of Male gametophyte in angiosperm
11. Describe the various parts of an angiospermic Ovule
12. Structure of a mature Embryosac in angiosperms
13. Structure of Tetrasporic embryosac
14. Explain the process of Fertilisation in angiosperm
15. Development of Embryo in Dicot plants
16. Development of Embryo in Monocot plants

Unit - IV: Palynology

17. What is Cross pollination ? Explain its various contrivances
18. Write an essay on Palynology
19. An account on scopes of Palynology

Short Questions- Unit - I

20. Meristems and its types
21. Tunica-corpus theory
22. Histogen theory
23. Korper-kappe theory
24. Structure and types of Collenchyma
25. Hydathodes
26. Laticiferous tissues
27. Trichomes
28. Types of stomata
29. Anatomy of Acacia phyllode
30. T.S of Nymphaeae petiole
31. T.S of Achyrenthes stem
32. Beta vulgaris root

Unit – II

33. Types of vascular systems
34. Uses of Wood
35. Rose wood
36. Neem
37. Nallamaddi
38. Red sanders

Unit - III

39. Anther wall
40. Types of Ovules
41. Bisporic embryo sac
42. Monosporic / Oenothera type of embryosac
43. Nemec phenomenon
44. Hypostase and Epistase
45. Tapetum and its types

46. Nuclear, Cellular & Helobial type of endosperm
47. Adventive polyembryony
48. Significance of polyembryony
49. Ruminate endosperm
50. Alurone layer

Unit IV -

51. Self –incompatability
52. Pollen – pistil interaction
53. NPC Classification
54. Sporoderm
55. Self-pollination contrivances
56. Entomophily
57. Dichogamy
58. Scope of Palynology
59. Abiotic pollinating agents
60. Pollen grain apertures