

I S Sadan

Subject Title: Gymnosperms, Taxonomy of Angiosperms and Ecology

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Unit - I: Gymnosperms : Easy type Questions

1. Describe the general characters of Gymnosperm and add a note on its alternation of generations and classification.
2. Write a note on Economic importance of Gymnosperms.
3. Describe internal structure of Pinus needle (T.S) and add a notes on it xerophytic characters ?
4. Describe the Primary stem internal structure of Pinus and add a note on its secondary growth
5. Describe the structure of Microsporangium and male gametophyte development in pinus.
6. Describe the development of embryo in Pinus and add a note on seed structure and seed germination.
7. Describe the structure of ovule and female gametophyte development in pinus?
8. Describe the life history of pinus. Describe the primary stem internal structure in Gnetum and add a note on its secondary growth.
9. Describe the structure of microsporangium and add a note on male gametophyte of Gnetum and different views on it.
10. Describe Megasporogenesis and development of female gametophyte and a note on endosperm in gnetum.
11. Describe the development of embryo and add a note on seed structure in gnetum.
12. Give an account on Polyembryony in gnetum and add a note on seed germination and its economic importance.
13. Describe life history of gnetum.
14. Explain how gnetum resembles and differ from gymnosperms and angiosperms.
15. Compare the male gametophyte of pinus and gnetum.
16. Compare the ovule of gnetum and pinus at the time of fertilization.
17. Give an account of importance of fossils in the study of plant organs and reconstruction of organism.
18. Describe the formation of different types of fossils and their importance.
19. Give an account on geological time scale.

Short Answer type Questions:

20. Pinus male cone.
21. Pinus female cone.
22. Pinus ovule and ovuliferous scale.
23. Gnetum male cone.
24. Gnetum female cone.
25. Pinus economic importance.
26. Pinu morphological characters.
27. Gnetum morphological characters.
28. Poly embryony in gnetum.
29. Pinus pollen grain.
30. Fossils and fossilization

Unit - II: Taxonomy of Angiosperms: Eassay type questions.

31. Explain the Bentham and Hooker system of classification with merits and demerits.
32. Explain the Engler and Prantl's system of classification with merits and demerits.
33. Describe the embryology in reletion to Taxonomy.
34. Describe the chemotaxonomy.
35. Describe Shenzen code- a brief account.
36. Explain the Herbarium concept, techniques and applications.

Short Answer type questions:

37. What is Cytotaxonomy and ICBN.
38. Write about on Herbarium applications.
39. Write about on APG systems.
40. Artificial classification and Natural classification.
41. Phylogenetic classification
42. Numerical Taxonomy.

Unit - III: Taxonomy of Angiosperms Families: Eassay type Questions:

43. Systematic study and economic importance of families-Annonaceae.
44. Fabaceae.
45. Cucurbitaceae.
46. Euphorbiaceae.
47. Asclepiadaceae.

48. Orchidaceae.

49. Zingiberiaceae.

Short Answer type Questions:

50. Economic importance of Fabaceae.

51. Floral characters of Asteraceae and pollination mechanism.

52. Pollination mechanism in Asclepiadaceae and taxonomy affinities.

53. Floral characters of Amaranthaceae

54. Pollination in Orchids.

55. Rutaceae

56. Poaceae

57. Lamiaceae

58. Capparidaceae.

Unit - IV: Ecology : Eassay type Questions

59. Describe the Components of Ecosystem.

60. Explain the Ecological adaptations of plants.

61. Describe the plant Succession serial stages.

62. Describe the climax formation with reference to Hydrosere, xerosere and mesophytes.

Short Answer type Questions:

63. Food chain and food web.

64. Energy flow.

65. Hydrophytes.

66. Xerophytes.

67. Mesophytes

68. Moification of Environment.

69. Hydrosere and xerosere.