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Class – M.Sc-I (Botany) Sem.II

Subject – BOT C-522

Paper – Diversity & Biology of Gymnosperms

Time Allowed : 3 Hours

Maximum Marks : 50

SECTION-A

NOTE: Attempt all the parts. Each part carries 1 mark.

1. (a) Manoxylic & Pycnoxylic wood
- (b) Define Geological time scale
- (c) Zoodogamous
- (d) Pollination drop
- (e) Name two extinct Gymnosperms
- (f) Female reproductive organs in Glossopteris
- (g) Lithology
- (h) Syndetocheilic Stomata (1×8=8)

SECTION-B

Note: Attempt any 7 questions. Each question carries 3 marks.

2. Give a brief account on the cytology of Gymnosperms.
3. Write an illustrated account on Pentoxylales. Discuss their affinities with other groups of gymnosperms.
4. Write short note on :
 - (a) Glossopteris
 - (b) Economic importance of conifers
5. Write short note on evolution of pollination mechanism of gymnosperms.
6. What is biostratigraphy? Discuss various categories of biostratigraphy.

7. Enumerate differences between Taxales and Ephedrales.
8. Briefly explain the distribution of Gymnosperms in India.
9. Differentiate between female gametophyte of Cycas and Pinus.
10. Differentiate between aneurophytales & archeopteridales.
11. Write a note on (a) vegetative structures of Welwitschia (b) reproductive structures of Ginkgo (7×3=21)

SECTION-C

Note: Attempt any Three questions. Each question carries 7 marks.

12. Write short notes on :
 - (a) Vessel formation in Gnetales
 - (b) Reproductive structures in Ephedra
13. Write in detail about important geological formation in India.
14. Write detailed notes on :
 - (a) Classification of Gymnosperms
 - (b) Geological Time Scale
15. Discuss the morphology, structure, reproduction & economic importance of Gnetales. How they differ from Taxales?
16. Describe evolutionary tendencies in reproductive structure of Gymnosperms.
