

November 2025
M.Sc.
First Semester
CORE – 03
BOTANY
Course Code: MBOC 1.31
(Gymnosperms & Palaeobotany)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Give an account of the classification of gymnosperms. 14
2. Discuss the origin and evolution of gymnosperms. 14

UNIT-II

3. Give a general account of the order Coniferales. Add a note on its reproductive structure. 8+6=14
4. Write a note on each of the following: 7×2=14
 - (a) Rachis of *Cycas*
 - (b) Reproductive structure of *Gnetum*

UNIT-III

5. Discuss the continental drift theory proposed by Alfred. Mention the causes of continental drift. Describe the evidence given by Alfred to prove continental drift. 5+3+6=14
6. What is fossil? Discuss the different types of fossils. Describe the palaeoclimate and geological events that took place during Carboniferous period. 2+6+6=14

UNIT-IV

7. Describe the general characteristics of Bennettitales. Discuss the similarities between Bennettitales and cycads. 8+6=14

8. Give an account of the general characteristics of Pentoxylales. Describe the affinities of Pentoxylales and Bennettiales. 8+6=14

UNIT-V

9. To which period does *Zosterophyllum* belong? How many species are reported from Zosterophyllaceae? Give the general characteristics of *Zosterophyllum*. 2+3+9=14
10. Discuss the morphological and anatomical characters of *Asteroxylon*. Illustrate your answer with suitable diagrams. 5+6+3=14
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