

2023
M.Sc.
First Semester
CORE – 04
BOTANY
Course Code: MBOC 1.41
(Plant Morphology & Anatomy)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Discuss various forms of modifications of stem with the help of diagrammatic illustrations. 14
2. Write notes on the following: 7×2=14
 - (a) Simple and compound leaves
 - (b) Phyllotaxy

UNIT-II

3. Define inflorescence. Explain the different types of racemose inflorescences with the help of diagrammatic representations. 2+12=14
4. Write notes on the following: 7+7=14
 - (a) Aestivation
 - (b) Cohesion and adhesion of floral parts

UNIT-III

5. Discuss the role of Clavata and Buschell genes in the organisation of the shoot apical meristem. 14
6. Discuss various theories on the organisation of the root apical meristem with the help of diagrammatic illustrations. 14

UNIT-IV

7. Describe the structure of stomata. Explain the different types of stomata found in dicot and monocot plant with proper diagrams. 4+10=14
8. Give an account of the ontogeny of the leaf. 14

UNIT-V

9. What is cambium? Explain the structure and seasonal activity of cambium with suitable diagrams. 14
10. Give an illustrated account of the axial parenchyma and ray parenchyma. 14
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