

2023
B.A./B.Sc.
Third Semester
CORE – 5
BOTANY
Course Code: BOC 3.11
(Morphology & Anatomy)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Explain the process of cyto-differentiation during embryonic development of the plant. 14
2. What do you understand by meristematic tissue? Describe various types of meristems and their functions. 2+12=14

UNIT-II

3. What are permanent tissues? With the help of suitable diagrams describe the structure and function of xylem elements. 2+12=14
4. Write notes on the following: 7×2=14
 - (a) Pits and plasmodesmata
 - (b) Ergastic substances

UNIT-III

5. What are vascular bundles? With the help of diagrammatic representation explain the different types of vascular bundles in stem. 2+12=14
6. Differentiate between 7×2=14
 - (a) dicot and monocot stem
 - (b) dicot and monocot root

UNIT-IV

7. What is secondary growth? Briefly explain the secondary growth in stem and root. 2+12=14
8. Write notes on the following: 7×2=14
- (a) Early wood and late wood
 - (b) Tyloses

UNIT-V

9. What are trichomes? Explain the different types of trichomes found on the epidermal surface of the plant body. 2+12=14
10. What are the different categories of xerophytes? Write morphological and anatomical adaptations of xerophytes. 6+8=14
-