

FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2017

(CUCBCSS—UG)

Botany

BOT 1B 01—ANGIOSPERM ANATOMY

Time : Three Hours

Maximum : 80 Marks

Part A

*Answer all questions. One Word/Fill in the blanks.
1 mark each.*

Fill in the blanks :

1. The waxy substance associated with the wall of cork cell is _____.
2. Vascular tissues are highly reduced in _____.
3. _____ is a conductive wood ?
4. _____ is a dead mechanical tissue.
5. Central cap like inactive cells within the root apical meristem is termed as _____.
6. The process of water secretion through the structurally modified portion of the leaf is called _____.
7. Reserve food in Aleurone grain is _____.
8. Apical cell theory was proposed by _____.
9. Aerenchyma is a type of _____ tissue.
10. Name the vascular bundles in which xylem and phloem are arranged in the same radius is _____.

(10 × 1 = 10 marks)

Part B (Short Answer Questions)

*Answer all questions.
2 marks each.*

11. What is calyptrogen ?
12. Differentiate between vessel and tracheids.
13. Explain concentric vascular bundles.
14. What is apposition ?
15. Explain Apical cell theory.
16. Differentiate between heart wood and sap wood.

Turn over

17. Explain leaf gap.
18. Differentiate between open and closed bundles.
19. Write a note on Collenchyma.
20. Explain vascular rays.

(10 × 2 = 20 marks)

Part C (Short Essays)

*Answer any six questions.
5 marks each.*

21. Write an account on mineral crystals present in plants.
22. Explain meristematic tissues.
23. Describe simple tissues.
24. Explain secondary growth in dicot stem.
25. Write a note on extra cell wall material.
26. Give an account on different types of starch grains.
27. Write an account on secretory tissues .
28. Give the structure of bordered pit with the help of a diagram.

(6 × 5 = 30 marks)

Part D (Essays)

*Answer any two questions.
10 marks each.*

29. Explain complex tissues in plants.
30. Write an account on anomalous secondary growth in *Boerhavia stem*.
31. Describe nodal anatomy.

(2 × 10 = 20 marks)