FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2017

(CUCBCSS—UG)

Complementary Course

BOT 1C 01—ANGIOSPERMIC ANATOMY AND MICROTECHNIQUE

Time : Three Hours

Maximum : 64 Marks

Part A

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

Answer in a Single :

1. ——— – is the living mechanical tissue.

2. The waxy substance associated with the wall of cork cell is ———.

3. Parenchymatous tissues containing air spaces ———.

4. Formation of growth layers in wood during each year is ———.

5. Type of vascular bundle where xylem and phloem lies opposite to each other on the same radius is called ?

6. Long cylindrical xylem element is called ———.

7. ——— is an example of Basic stain.

8. FAA stands for ———.

9. ——— is an instrument used to section the woody materials for histological analysis.

10. ——— is used as a clearing agent.

(10 × 1 = 10 marks)

Part B (Short Answer Questions)

Answer all questions.
2 marks each.

11. What is whole mount ? How it is prepared ?

12. What is microtomy ?

13. What is meant by dehydration ?

14. Explain Apical cell theory.

15. Describe glandular hairs.

16. Differentiate heart wood and sap wood .

Turn over

17. Explain leaf gap.

18. Differentiate open and closed vascular bundles

19. Write a note on sclerenchyma.

20. Describe laticiferous tissues.

(7 × 2 = 14 marks)

Part C (Short Essays)

Answer any six questions.
4 marks each.

21. Describe various types of vascular bundles.

22. Describe simple permanent tissues.

23. Describe Hydathodes.

24. Explain ring and diffuse porous wood.

25. Describe the anatomy dicot leaf.

26. What is a stain ? Explain with types.

27. Explain Killing and Fixation methods used in Anatomy.

28. What is a microtome? Give its advantages and write short notes on the types you have studied.

(6 × 4 = 24 marks)

Part D (Essays)

Answer any two questions.
8 marks each.

29. Explain secondary growth in dicot stem.

30. Explain various complex tissues in plants with diagrams.

31. Discuss anomalous secondary growth in *Boerhavia* stem.

(2 × 8 = 16 marks)