



MAR IVANIOS COLLEGE (AUTONOMOUS)
THIRUVANANTHAPURAM

Reg. No. :.....

Name :.....

First Semester B.Sc. Degree Examination, November 2015

First Degree Programme under CBCSS

Complementary Course: Botany – I (for Zoology)

AUBO131.2e: Microtechnique, Angiosperm Anatomy and Reproductive Botany

(for 2015 Admissions Only)

Time: **3 Hours**

Max. Marks: **80**

SECTION – A

Write short notes on ALL the following.

1. Tapetum
2. Guttation
3. Companion cell
4. Casparian strips
5. Placenta
6. Mordants
7. Growth rings
8. Triple fusion
9. Calyptrogen
10. Phellogen

(10 × 1 = 10 Marks)

SECTION – B

Answer any EIGHT questions, not exceeding one paragraph.

11. What are bast fibres ?
12. Explain Histogen theory.
13. What are the advantages of cross pollination ?

P.T.O.

1199

14. What is the importance of nectaries ?
15. What are tyloses ?
16. Briefly explain the structure of an ovule.
17. Give an account of digestive glands.
18. Describe the functions of cambium.
19. Explain quiescent centre.
20. Write a short note on bulliform cells.
21. Differentiate heartwood and sapwood.
22. Give short note on any two natural stains.

(8 × 2 = 16 Marks)

SECTION – C

Short essay type : Answer any SIX questions.

23. Explain different types of vascular bundles seen in stems.
24. Describe briefly how periderm is formed.
25. Explain the different types of meristems based on position.
26. Explain the structure of a mature embryo sac.
27. Give an account of killing and fixing agents.
28. Explain the structure and function of lenticels.
29. Describe the structure of a mature anther.
30. What are the cross pollination mechanisms seen in angiosperms.
31. Explain how endosperm is formed. Add a note on its significance.

(6 × 4 = 24 Marks)

SECTION – D

Long essay type : Answer any TWO questions.

32. Give an account of normal secondary growth in dicot stem.
33. With suitable diagram explain the structure and development of Polygonum type of an embryo sac.
34. Explain anomalous secondary growth in Boerhaavia.
35. Give an account of complex tissues.

(2 × 15 = 30 Marks)

∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*∫*