MAR IVANIOS COLLEGE (AUTONOMOUS)
THIRUVANANTHAPURAM

Reg. No. :…… **Name :...…….**

First Semester B.Sc. Degree Examination, November 2016

First Degree Programme under CBCSS

Core Course: Botany – I

AUBO141: Angiosperm Anatomy, Reproductive Botany and Palynology

(*Common for* ***Regular*** *– 2016 Admn. and* ***Improvement*** *– 2015 Admn.*)

Time: **3** Hours Max. Marks: **80**

SECTION – A

*Answer **ALL** questions in one or two sentences.*

1. Who proposed Tunica Corpus theory ?
2. Dendrochronology
3. What are laticiferous tissues ? Give an example.
4. Porogamy
5. Pollinia
6. Filiform apparatus
7. Epithem
8. Calyptrogen
9. Cystolith
10. Quiescent centre

(10 × 1 = 10 Marks)

SECTION – B

*Answer any **EIGHT** questions, not exceeding one paragraph.*

11. What is periderm ? How is it formed ?
12. Explain the dehiscence of anther.
13. Differentiate articulate and nonarticulate laticifers.
14. Differentiate colpate and colporate pollen

15. Differentiate ring porous and diffuse porous wood.
16. What is pollenkitt ? Mention its functions.
17. Differentiate simple pit and bordered pit.
18. What are passage cell ? Mention its importance in plants.
19. Describe the structure of a mature pollengrain.
20. Define tapetum. Mention its function.
21. Differentiate heart wood with sap wood.
22. Draw and label a typical monocot vascular bundle.

(8 × 2 = 16 Marks)

SECTION – C

*Short essay type : Answer any **SIX** questions.*

23. Explain Polygonum type of female gametophyte development in angiosperms.
24. Explain double fertilization and its significance.
25. How pollen grains are tested for viability ?
26. Compare the leaf anatomy of monocot and dicot.
27. What are meristematic tissues ? How are they classified based on origin and development ?
28. Differentiate monocot embryo from dicot embryo.
29. Explain different types of vascular arrangements.
30. How are ovules classified based on the position of micropyle and funiculus ? Draw diagram.
31. Explain the types of simple permanent tissues in plants. Point out their functions.

(6 × 4 = 24 Marks)

SECTION – D

*Long essay type : Answer any **TWO** questions.*

32. Explain the structure of microsporangium in angiosperms with suitable diagram.
33. Write an essay on nonliving inclusions of a cell.
34. Describe anomalous secondary growth in Bignonia in comparison with normal secondary growth in dicot stem.
35. What are complex tissues ? Explain the structure and functions of various components of xylem and phloem.

(2 × 15 = 30 Marks)

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