



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

THIRD SEMESTER – APRIL 2019

PB 3511– PLANT ANATOMY

Date: 25-04-2019
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

PART- A

Answer the following, each within 50 words only.

(10×2=20marks)

1. Comment on middle lamella
2. What are laticifers?
3. What is fascicular cambium?
4. Define dendrochronology.
5. What is intercalary meristem?
6. Comment on primary meristem.
7. Write a note on uni and trilacunar nodes.
8. What are Casparian strips?
9. What are medullary bundles? Give examples.
10. What is isobilateral leaf?

PART- B

Answer the following, each within 500 words. Draw diagrams wherever necessary.

(5×7=35marks)

11. (a) Explain the structure of a plant cell.
(or)
(b) Describe the components of xylem and phloem.
12. (a) Write notes on various types of vascular bundles.
(or)
(b) Distinguish between vascular cambium and cork cambium
13. (a) Give an account of the Tunica corpus theory.
(or)
(b) Diagrammatically explain the lateral meristem.
14. (a) Discuss the internal structure of monocot root.
(or)
(b) Diagrammatically explain the cross section of a dicot stem.
15. (a) What is anomalous secondary growth? Add a note on the wedges of phloem in *Bignonia*.
(or)
(b) Describe the structure of various types of stomata seen in dicots.

PART- C

**Answer any three of the following, each within 1200 words. Draw diagrams wherever necessary.
(3×15=45 marks)**

16. Describe the various types of simple permanent tissues in plants.
17. Explain in detail about the morphogenesis in plants.
18. Give a comparative account on apical cell theory and histogen theory.
19. Write notes on: a) young dicot root b) old dicot root.
20. Explain the anomalous secondary growth in *Aristolochia*.
