

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**



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

**THIRD SEMESTER – NOVEMBER 2018**

**PB 3511– PLANT ANATOMY**

Date: 31-10-2018  
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

**PART-A**

**Answer the following, each within 50 words.**

**(10 x 2 = 20 Marks)**

1. What is chlorenchyma?
2. What are sclereids?
3. What is vascular cambium?
4. Define stratified cambium.
5. What is apical meristem?
6. What is quiescent centre?
7. Define trilacunar node.
8. What is lenticel?
9. What is phelloderm ?
10. Define isobilateral leaf.

**PART- B**

**Answer the following, each within 500 words. Draw Diagrams whenever necessary.**

**(5 x 7 = 35 Marks)**

11. (a) Explain the structure of secondary wall layers of plant cell wall.

**(or)**

- (b) Give an account of parenchyma and its types.

12. (a) Describe the various types of vascular bundles.

**(or)**

- (b) Explain the differentiation of stem and root.

13. (a) Write about the characteristics of meristem.

**(or)**

- (b) Give a brief account on the classification of meristem

14. (a) Write notes on nodal anatomy.

**(or)**

- (b) Explain the internal structure of dicot root.

15. (a) Write notes on the various types of stomata.

**(or)**

- (b) Describe the anatomy of dorsiventral leaf.

## PART-C

Answer any three of the following, each within 1200 words. Draw diagrams/flowcharts whenever necessary. (3 x 15 = 45 marks)

16. Describe the elements of xylem tissue.
17. Write a brief essay on vascular cambium.
18. Discuss the various theories regarding the organization of apical meristem.
19. Compare the anatomy of monocot stem and dicot stem.
20. Describe in detail about the anomalous secondary growth in *Dracaena*.

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