



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

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

**THIRD SEMESTER – NOVEMBER 2015**

**PB 3511 - PLANT ANATOMY**

Date : 06/11/2015  
Time : 09:00-12:00

Dept. No.

Max. : 100 Marks

**PART – A**

Answer the following, each within 50 words only:

(10 x 2 = 20 marks)

1. Write about necteries.
2. What are companion cells?
3. What is stratified cambium?
4. Write notes on exarch and endarch xylem.
5. What is quiescent centre?
6. Define meristem.
7. What are casparian strips?
8. What are lenticels?
9. Comment on bulliform cells.
10. Write notes medullary bundles.

**PART – B**

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

(5 x 7 = 35 marks)

11. a) Write an account of xylem elements.  
(OR)  
b) Give a concise account on the secondary wall layers of Plant Cell Wall.
12. a) Write notes on differentiation of root and stem.  
(OR)  
b) What is vascular cambium? Explain its types.
13. a) Give the characteristic features of primary and secondary meristem.  
(OR)  
b) Write notes on the basis of its position meristem.
14. a) Describe the structure of a monocot root.  
(OR)  
b) Write a detailed account on nodal anatomy.
15. a) Write notes on the types of stomata.  
(OR)  
b) Explain the internal structure of dicot leaf.

**PART – C**

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

16. Write an account of the simple permanent tissues.
17. Explain the various types of vascular bundles.
18. Describe the various theories on the organization of apical meristem.
19. Give an illustrated account on the primary and secondary structure of dicot stem.
20. Describe anomalous secondary growth in *Aristolochia* and *Dracaena*.

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