

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



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

**THIRD SEMESTER – NOVEMBER 2016**

**PB 3511 – PLANT ANATOMY**

Date: 08-11-2016

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**PART – A**

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

*Answer the following, each within 50 words.*

01. What are tyloses?
02. Write notes on cystoliths.
03. What is fascicular cambium?
04. Distinguish between exarch and endarch xylem.
05. What is quiescent centre?
06. Define meristem.
07. Write short notes on annual ring.
08. What is phellogen?
09. What are bulliform cells?
10. Comment on phloem wedges.

**PART – B**

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

*Answer the following, each within 500 words. Draw diagrams and flow charts wherever necessary.*

- 11a. Write an account of Sclerenchyma.  
(OR)  
b. Explain the secondary wall layers of Plant Cell Wall
- 12a. Describe the various types of vascular bundles.  
(OR)  
b. Write notes on vascular cambium.
- 13a. Explain the characteristic features of meristem.  
(OR)  
b. Write an account of the classification of meristem.
- 14a. Describe the internal structure of a monocot stem.  
(OR)  
b. Write short notes on nodal anatomy.
- 15a. Explain T.S. of dorsiventral leaf.  
(OR)  
b. Enumerate the various types of stomata.

**PART – C**

**(3 x 15 = 45 marks)**

*Answer any three of the following, each within 1200 words. Draw diagrams and flow charts wherever necessary.*

16. Write an account on complex permanent tissues.
17. Explain the differentiation of stem and leaf.
18. Describe various theories regarding the organization of apical meristem.
19. Give an illustrated account on the primary structure of dicot stem and dicot root.
20. Discuss the anomalous secondary growth in *Boerhaavia* and *Dracaena*.

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