



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

**B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY & BIOTECH.**

**THIRD SEMESTER – NOVEMBER 2013**

**PB 3511 – PLANT ANATOMY**

Date : 08/11/2013  
Time : 9:00 - 12:00

Dept. No.

Max. : 100 Marks

**PART – A**

**ANSWER THE FOLLOWING, EACH WITHIN 50 WORDS ONLY:**

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

01. What are Plasmodesmata?
02. What are Hydathodes?
03. What is stratified cambium?
04. Write about quiescent centre.
05. Define meristem.
06. What is protoderm?
07. What are Tyloses?
08. Define annual rings.
09. What are bulliform cells?
10. Write notes on medullary bundles.

**PART – B**

**ANSWER THE FOLLOWING, EACH WITHIN 500 WORDS.  
DRAW DIAGRAMS WHEREVER NECESSARY:**

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

11. a. Write notes on Collenchyma.  
(OR)  
b. Give a detailed structure of Plant cell wall.
12. a. What is vascular cambium? Explain its activity.  
(OR)  
b. Write an account on differentiation of stem and root.
13. a. Describe primary and secondary meristem.  
(OR)  
b. Explain the types of meristem based on its position in Plant body.
14. a. Describe the structure of a typical Monocot root.  
(OR)  
b. Give an account of Nodal anatomy.
- 15a. Write about the various types of stomata.  
(OR)  
b. With the help of a diagram explain the structure of a dorsiventral 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 complex permanent tissues.
17. Discuss the various types of vascular bundles.
18. Elucidate the theories on the organization of shoot apex.
19. Describe the primary and secondary structure of a Dicot stem.
20. Give an illustrated account on anomalous secondary growth in *Bignonia* and *Dracaena*.

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