

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



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

THIRD SEMESTER – NOVEMBER 2019

PB 3511 – PLANT ANATOMY

Date: 31-10-2019

Dept. No.

Max. : 100 Marks

Time: 01:00-04:00

Part A

Answer the following, each within 50 words.

(10 x 2 = 20 marks)

1. What is collenchyma?
2. Give the chemical composition of plant cell wall.
3. Define collateral vascular bundle.
4. What is an epidermal hair?
5. Mention any two features of meristematic cells.
6. What are secondary meristems?
7. What is vascular cambium?
8. What is endodermis?
9. Draw and label the parts of stomata.
10. What is double fertilization?

PART B

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

(5 x 7 = 35 marks)

11. a. Write short notes on parenchyma.
(or)
b. Discuss briefly about sclerenchyma and its types.
12. a. Write notes on the structure and types of vascular cambium.
(or)
b. Briefly explain about the types of vascular bundles.
13. a. List out the salient features of meristematic tissues.
(or)
b. Write short notes on the types of meristems based on position and origin.
14. a. Explain the structure of dicot stem.
(or)
b. Describe the structure of monocot root.
15. a. Describe the structure of *Dracaena* stem.
(or)
b. Write notes on the types of stomata in dicots.

PART C

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

(3 x 15= 45 marks)

16. Explain in detail about the structure of a plant cell.
17. Discuss in detail about differentiation of stem.
18. Explain in detail about the theories on organization of apical meristem.
19. Write notes on normal secondary growth of dicot stem.
20. Describe the structure of dicot and monocot leaves.
