



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

SECOND SEMESTER – APRIL 2017

16UPB2MC02- PLANT ANATOMY AND EMBRYOLOGY

Date: 25-04-2017
01:00-04:00

Dept. No.

Max. : 100 Marks

PART – A

(10 x 2 = 20 marks)

Answer the following, each within 50 words.

01. What are companion cells?
02. Define meristem.
03. Write notes on unilacunar node.
04. What is phellogen?
05. Write notes on the stomata of monocot.
06. What is Palisade parenchyma?
07. What is Monosporic embryo sac?
08. Write notes on Tapetum.
09. Define double fertilization and triple fusion.
10. What is Parthenocarpy?

PART – B

(5 x 7 = 35 marks)

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

- 11a. Briefly Explain the various theories on the organization of shoot apex.

(OR)

- b. Outline the classification of meristem.

- 12a. Describe the internal structure of young dicot stem.

(OR)

- b. Write notes on the ground tissue system.

- 13a. Describe T.S. of isobilateral leaf.

(OR)

- b. Give a brief account on the anatomy of monocot root.

14a. Describe the structure of an anatropous ovule.

(OR)

b. Explain the development of male gametophyte.

15a. Explain any two different types of endosperm.

(OR)

b. Write notes on Polyembryony.

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 simple permanent tissues.

17. Give an account on the anomalous secondary growth in *Nyctanthes* and *Dracaena*

18. Explain the primary and secondary structure of dicot root.

19. Describe the structure and development of anther.

20. Explain the development of dicot embryo.
