LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

EGREE EXAMINATION – **PLANT BIOLOGY AND PLANT BIOTECHNOLOGY**

SECOND SEMESTER - APRIL 2019

16/17/18UPB2MC02- PLANT ANATOMY AND EMBRYOLOGY

Date: 04-04-2019	Dept. No.	Max. : 100 Marks
Time: 01:00-04:00	_	

PART-A

Answer the following, each within 50 words.

 $(10 \times 2 = 20 \text{ marks})$

- 1. Define Sclerenchyma.
- 2. What is Meristem?
- 3. What is the role of cuticle in plants?
- 4. Define Cambium.
- 5. Define Polyarch.
- 6. Give the different components of vascular bundle.
- 7. What is tapetum?
- 8. What is pollen dispersal unit?
- 9. Write a note on triple fusion.
- 10. Define apomixes.

PART-B

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

 $(5 \times 7 = 35 \text{ marks})$

11. (a) Comment on different types of tissues in plants.

Or

- (b) Describe the theories related to organisation of apical meristems.
- 12. (a) Explain the types of vascular bundles.

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- (b) Write a short notes on anatomy of dicot stem.
- 13. (a) Describe the anatomical structure of dicot leaf.

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- (b) Write detailed notes on the different type of stomata?
- 14. (a) Give a short account on the structure of mature anther.

Or

- (b) Comment on the different types of pollination in plants.
- 15. (a) What is endosperm? Comment on its types.

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(b) Explain the types of pollen grains.

PART-C

Answer $\underline{any\ three}$ of the following, each within 1200 words. Draw diagrams wherever necessary.

(3 x 15=45 marks)

- 16. Write an essay on the permanent tissues in plants.
- 17. Comment on the anomalous secondary growth in *Dracaena*.
- 18. Compare and contrast the anatomy of dicot and monocot root.
- 19. Write an essay on the type and development of ovule.
- 20. Describe the different events in the fertilization process.

