LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

DEGREE EXAMINATION – **PLANT BIOLOGY AND PLANT BIOTECHNOLOGY**

FOURTH SEMESTER - APRIL 2019

PB 4511- EMBRYOLOGY OF ANGIOSPERMS

Date: 12-04-2019	Dept. No.	Max. : 100 Marks
π: 01.00.04.00		

Time: 01:00-04:00

PART-A

Answer the following, each within 50 words.

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

- 1. What is sporopollenin?
- 2. Draw and name the parts of a pollen grain.
- 3. Mention the function of synergids.
- 4. Write notes on archesporial cell
- 5. What are chasmogamous flowers?
- 6. What are callose plugs?
- 7. What is crucifer type of dicot embryo?
- 8. Mention the role of a suspensor.
- 9. Define adventivepolyembryony.
- 10. What are the parts of a fruit?

PART-B

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

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

11a. Briefly explain NPC system of classification of pollengrains.

(or)

- b. What is palynology? Give its applications.
- 12a. Briefly describe the types of ovules.

(or)

b.Illustrate the haustorial behavior and brief on the nutrition of aembryosac.

13a. What are the floral mechanism favoring cross pollination?

(or)

- b. What is double fertilization? List out the post fertilization changes.
- 14a.Discuss the types of endosperm.

(or)

- b.Give an account on the cytology and functions of the endosperm.
- 15a. How is parthenocarpy induced? Mention its applications.

(or)

b. What is apomixes? Give its significance.

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

 $(3 \times 15 = 45 \text{ marks})$

- 16 .Describe the development and structure of a mature anther.
- 17. Explain *Polygonum*, and *Allium* types of embryosac development.
- 18. Describe the role of various agents that brings out pollination.
- 19. Trace the development of a monocot embryo.
- 20. Write an essay onpolyembryony.

