# LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FOURTH SEMESTER – **APRIL 2018**

**PB 4511– EMBRYOLOGY OF ANGIOSPERMS**

Date: 08-05-2018 Dept. No. Max. : 100 Marks

Time: 01:00-04:00

**PART – A**

**ANSWER THE FOLLOWING, EACH WITHIN 50 WORDS ONLY: [10 X 2 = 20]**

1. Define a perfect flower?
2. What is tapetum?
3. What is an anatropous ovule?
4. What is a haustorium?
5. Definezoophily? Give examples.
6. Definechalazogamy?
7. Give two examples for ruminate endosperm.
8. What is a suspensor?
9. Name any two factors that influence parthenocarpy.
10. Give any two examples for polyembryony.

**PART – B**

**ANSWER THE FOLLOWING, EACH ANSWER WITHIN 500 WORDS, DRAW DIAGRAMS WHEREVER NECESSARY: [5 X 7 = 35]**

11a. Describe the process of microsporogenesis.

**(OR)**

b. Explain the different types of pollen grains.

12a. Explain the process of megasporogenesis. .

**(OR)**

b. Describe the different types of ovules.

13a. Differentiate self pollination and cross pollination and write about their significance.

**(OR)**

b. Give an account on the post-fertilization changes.

14a. Write an account on the types of endosperms.

**(OR)**

b. Describe the development of monocot embryo.

15a. Describe the types of parthenocarpy and their applications.

**(OR)**

b. Write an account on apomixis.

**PART – C**

**ANSWER ANY THREE OF THE FOLLOWING, EACH WITHIN 1200 WORDS, DRAW DIAGRAMS WHEREVER NECESSARY: (3 X 15 = 45)**

16. Write an essay on the structure of a mature anther and add a note on the ultrastructure of a typical pollen grain.

17. Describe the structure and development of different types of embryosac.

18. Explain the process of pollen germination and fertilization.

19. Describe the development of dicot embryo.

20. Describe the different types of polyembryony, their causes and significance.

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