LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FOURTH SEMESTER – **NOVEMBER 2016**

PB 4511 – EMBRYOLOGY OF ANGIOSPERMS

Date: 07-11-2016 Dept. No. Max. : 100 Marks

Time: 01:00-04:00

PART-A

ANSWER THE FOLLOWING , EACH WITHIN 50 WORDS ONLY (10x2=20)

1. Draw the structure of male gametophyte.
2. What is the significance of NPC system?
3. Differentiate campylotropous from hemianatropous ovule.
4. Illustrate the behaviour of haustorial embryosac with an example.
5. What is the role of stigma on pollen germination?
6. List out the conditions for self pollination.
7. Describe the functions of a suspensor.
8. Define composite endosperm.
9. What is adventive polyembryony?
10. Define parthenocarpy.

PART-B

ANSWER THE FOLLOWING EACH WITHIN 500 WORDS.
DRAW DIAGRAMS NECESSARY. (5x7=35)

11. a. What is palynology? Add a note on its applications

(or)

b. Describe the ultra structure of a pollen grain and mention its types

12. a. Describe the structure of an ovule.

(or)

b. Give an account on the nutrition of embryosac.

13. a. Describe any three floral mechanism favouring cross pollination.

(or)

b. What is double fertilization and enumerate the post fertilization changes?

14. a. Write an account on endosperm haustoria.

(or)

b. Describe the development of a dicot embryo.

15. a. What are the factors that induces parthenocarpy and write its applications.

(or)

b. Write notes on apomixes.

PART-C

ANSWER ANY **THREE** OF THE FOLLOWING, EACH WITHIN 1200 WORDS.
DRAW DIAGRAMS WHEREVER NECESSARY. (3x15=45)

16. Describe the development and structure of a mature anther.
17. Explain the different types of embryosac development.
18. Give an account on any three agents that brings cross pollination.
19. Write notes on the types and functions of endosperm.
20. Describe the types and significance of polyembryony.

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