



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FOURTH SEMESTER – APRIL 2016

PB 4511 - EMBRYOLOGY OF ANGIOSPERMS

Date: 22-04-2016
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

PART – A

Answer the following each within 50 words only

(10 X 2 =20)

1. What is sporopollenin?
2. List the types of pollen grains.
3. Comment on the haustoria behaviour of embryosac.
4. Draw the structure of a campylotrophous ovule.
5. List the advantages of self pollination and cross pollination.
6. What is triple fusion?
7. What is ruminant endosperm?
8. Write about the cy to genetic nature of endosperm.
9. Comment on somatic embryogenesis.
10. How parthenocarpy could be induced?

PART – B

**ANSWER THE FOLLOWING, EACH ANSWER WITHIN 500 WORDS,
DRAW DIAGRAMS WHEREVER NECESSARY**

(5 X 7 =35)

11. a. Describe the development of anther
(OR)
b. Describe the ultrastructure of pollen grains.
12. a. Describe the structure of an ovule.
(OR)
b. Discuss about the nutrition of embryosac.
13. a. Summarise the post fertilization changes.
(OR)
b. Give an account on the different modes of cross pollination.
14. a. Describe any two types of endosperms.
(OR)
b. Describe the development of dicot embryo
15. a. Give a detailed account on apomixis.
(OR)
b. Write an account on parthenocarpy and its advantages.

PART – C

**ANSWER ANY THREE OF THE FOLLOWING, EACH WITHIN 1200 WORDS,
DRAW DIAGRAMS WHEREVER NECESSARY**

(3 x 15 =45)

16. Describe the NPC System of Classification.
17. Describe the development of embryosac.
18. Explain the events leading to pollen germination and fertilization.
19. Describe the development of monocot embryo and functions of suspensor.
20. Write an essay on the causes and types polyembryony. Add a note on its significance.
