LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

SECOND SEMESTER – **APRIL 2015**

PB 2504/PB 2502/PB 2500 - PTERIDO.,GYMNO., & PALEOBOTANY

Date : 15/04/2015   Dept. No.   Max. : 100 Marks
Time : 01:00-04:00

PART – A

ANSWER THE FOLLOWING, EACH WITHIN 50 WORDS ONLY: **(10 x 2 = 20 marks)**

01. Distinguish eusporangiate from leptosporangiate Pteridophytes.

02. What is Apospory?

03. Write about false indusium.

04. Write a brief note on the sporophyte of *Psilotum.*

05. Write about the economic importance of *Azolla.*

06. Mention any two characters of Cordaitales.

07. Comment on the shape of vascular bundle in *Cycas* rachis.

08. What are bars of Sanio?

09. Write short notes on the contributions of Birbal Sahni.

10. List out the morphological characters of *Williamsonia.*

PART – B

**ANSWER THE FOLLOWING, EACH WITHIN 500 WORDS. DRAW DIAGRAMS
WHEREVER NECESSARY:**   **(5 x 7 = 35 marks)**

11. a. Write an account on heterospory and seed habit
                              (OR)
   b. Explain the different types of steles in Pteridophytes.

12. a. Give an illustrated account on the spore bearing structures of *Equisetum*
                              (OR)
   b. Describe the structure of *Marsilea* rhizome.

13a. Explain the affinities of Gymnosperms with Angiosperms.
                              (OR)
   b. Enumerate the economic importance of Gymnosperms.

14a. Give an illustrated account on the structure of *Pinus* needle.
                              (OR)
   b. Enumerate the salient features of pterido spermales.

15a. Write a brief account on Geological time scale.
                              (OR)
   b. Describe the structure of *Lepidodendron.*

PART – C

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

16. Enumerate the general characters of Pteridophytes.

17. Describe in detail the life cycle of *Lycopodium.*

18. Enumerate the salient features of Gymnosperms.

19. Give a comparative account on the reproductive structures of *Pinus* and *Gnetum.*

20. Write an essay on the types of fossils and the process of fossilization.

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