

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



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

SECOND SEMESTER – NOVEMBER 2016

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

Date: 12-11-2016

Dept. No.

Max. : 100 Marks

Time: 01:00-04:00

PART – A (10 x 2 = 20 marks)

ANSWER THE FOLLOWING, EACH WITHIN 50 WORDS ONLY.

01. What is apogamy?
02. Define Eusporangiate Pteridophytes.
03. Comment on False indusium.
04. Comment on *Lycopodium* prothallus.
05. Mention the concept of Progymnosperms.
06. Write any two characters of Cordaitales.
07. What are transfusion tissues?
08. Write about male flower of *Gnetum*.
09. Give the contributions of Birbal Sahni.
10. Give a brief note on the sporophyte of *Rhynia*.

PART – B (5 x 7 = 35 marks)

ANSWER THE FOLLOWING, EACH WITHIN 500 WORDS.

DRAW DIAGRAMS WHEREVER NECESSARY.

- 11a. Write an account on Heterospory and seed habit.
(OR)
b. Outline the classification of Pteridophytes by Reimer.
- 12a. Describe the structure of Marsilea sporocarp.
(OR)
b. List out the economic importance of Pteridophytes.
- 13a. Describe the salient features of Bennettitales.
(OR)
b. Discuss the affinities and differences of Gymnosperms with higher plants.
- 14a. Describe the internal structure *Cycas* coralloid root.
(OR)
b. Give an illustrated account of *Gnetum* ovule.
- 15a. Explain the structure of *Calamites*.
(OR)
b. Write notes on the types of fossils.

PART – C (3 x 15 = 45 marks)

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

16. Write an essay on the types of steles found in Pteridophytes.
17. Explain the structure and reproduction of *Equisetum*.
18. Discuss the general characters of Gymnosperms.
19. Describe the structure of male and female cone of *Pinus*.
20. Write an account on the Geological time scale.
