

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



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

SECOND SEMESTER – APRIL 2018

PB 2504– PTERIDO., GYMNO., & PALEOBOTANY

Date: 02-05-2018

Dept. No.

Max. : 100 Marks

Time: 01:00-04:00

PART A

Answer the following, each within 50 words: (10 x 2 = 20marks)

1. Define homospory.
2. What is protosteles?
3. Mention the economic importance of *Azolla*?
4. What are commonly known as horsetails. Mention its division and genus.
5. List out any two characters of Cordaitales.
6. Mention any two characters of Pteridospermales.
7. What are coralloid roots?
8. What are bars of Sanio?
9. Define petrification.
10. What is fossilization?

PART B

Answer the following, each within 500 words. Draw diagrams and flowcharts wherever necessary. (5 X 7 = 35marks)

11. a. Give a brief note on the life cycle of heterospory.

(Or)

- b. Write the salient features of vascular cryptogams.

12. a. Describe the anatomical structure of *Marselia* rhizome.

(Or)

- b. Write the morphology of sporophyte of *Equisetum*.

13. a. Enumerate the salient features of Gymnosperms.

(Or)

- b. Write short notes on the affinities of Gymnosperms with Angiosperms.

14. a. Explain the anatomy of leaflet of *Cycas*.

(Or)

- b. Describe the anatomy of needle leaf of *Pinus*.

15. a. Explain the salient features of Calamites.

(Or)

- b. Write notes on geological time scale.

PART C

Answer any three of the following, each within 1200 words. Draw diagrams and flowcharts wherever necessary. (3 X 15 = 45marks)

16. Give an account on stellar evolution in Pteridophytes.
17. Describe the sporocarp of *Marselia*.
18. Outline the classification of Gymnosperms by Bierhorst.
19. Describe the structure of male and female cone in *Pinus*.
20. Explain in detail about the types of fossils and process of fossilization.
