



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

SECOND SEMESTER – APRIL 2016

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

Date: 21-04-2016
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

PART-A

Answer the following, each within 50 words

(10 x 2 = 20 Marks)

1. Define Apospory and Apogamy.
2. What is heterospory?
3. State the economic importance of *Azolla*.
4. What is Protocorm?
5. Mention about Pteridospermales.
6. What are Progymnosperms?
7. What is Coralloid root?
8. What is Polyembryony?
9. Define fossilization.
10. What are fossils?

PART- B

**Answer the following, each within 500 words,
Draw Diagrams wherever necessary**

(5 x 7 = 35 Marks)

- 11(a) Explain the general characters of Pteridophytes.
(OR)
(b) What is stele? Describe the various types of steles in Pteridophytes.
- 12(a) Describe the spore producing organ of *Psilotum*.
(OR)
(b) Enumerate the structure and germination of the Sporocarp of *Marsilea*.
- 13(a) Write an essay on the distribution and special characters of Gymnosperms.
(OR)
(b) List out the affinities and differences between Gymnosperms and Angiosperms.
- 14(a) Explain the structure of female cone of *Pinus* and the morphological nature of ovuliferous scale.
(OR)
(b) Describe the structure of male and female strobili in *Gnetum*.
- 15(a) Write a brief note on the salient features of *Calamites*.
(OR)
(b) Describe any five types of fossils.

PART-C

Answer any three of the following, each within 1200 words

Draw Diagrams wherever necessary:

(3 x 15 = 45 Marks)

16. Write an account on the heterospory and seed habit.
17. Illustrate and explain the life history of *Adiantum* .
18. Explain the salient features of (i) Bennettitales and (ii) Gnetales
19. Describe the structure and reproduction of *Cycas*.
20. Explain the morphological characters of *Rhynia*, *Lepidodendron* and *Williamsonia*.

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