

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY & BIO TECH

SECOND SEMESTER – APRIL 2013

PB 2102 - ESSENTIALS OF PLANT BIOLOGY

Date : 06/05/2013

Dept. No.

Max. : 100 Marks

Time : 9:00 - 12:00

Part A

Answer the following, each within 50 words.

(10 x 2 = 20 marks)

1. What is heterocyst?
2. Give the role of sorus.
3. Mention the fundamental units of classification.
4. What is ICBN? Mention its importance.
5. Differentiate between anisocytic and anomocytic stomata.
6. Mention the types of simple permanent tissue.
7. What is microspore?
8. Define megasporogenesis.
9. Write notes on the economic importance of cereals.
10. Write the economic importance of any two condiments.

Part B

Answer the following, each within 500 words only. Draw diagrams and flowcharts wherever necessary

(5 x 7 = 35 marks)

11a. Describe the sporophytic structure of *Funaria*.

Or

b. Describe briefly the lifecycle of *Puccinia*.

12a. Give the flow chart only of Bentham and Hooker's System of classification.

Or

b. Explain the types of placentation.

13a. Compare and contrast the anatomical features of Dorsiventral and Isobilateral leaves.

Or

b. Describe the anatomical features of anomalous growth in *Bignonia*.

14a. Describe anther development with suitable diagrams.

Or

b. Draw and describe the structure a mature ovule.

15a. Give a brief account on any three medicinal and timber yielding plants.

Or

b. Enumerate the economic importance of any three fruits and vegetables.

Part C

Answer any three of the following, each within 1200 words only. Draw diagrams and flowcharts wherever necessary **(3 x15 = 45 marks)**

16. Give a detailed account on the lifecycle of *Cycas*.
17. Define plant nomenclature. Explain in detail about the fundamental principles of plant nomenclature.
18. Give a general account on the classification of meristems and tissues.
19. Describe in detail on the process of double fertilization with suitable diagrams.
20. Cite the economic importance of any three spices, pulses, beverages and fibre-yielding plants.
