



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY AND BIOTECHNOLOGY

FIRST SEMESTER – APRIL 2017

16UPB1A01- BASICS OF PLANT BIOLOGY

Date: 02-05-2017
01:00-04:00

Dept. No.

Max. : 100 Marks

Part – A

(10 x 2 = 20 Marks)

Answer the following, each within 50 words.

1. What is glossopodium?
2. Draw and label the parts of *Funaria* gametophyte with sporophyte.
3. Mention any four plants with their scientific names belonging to the family Cucurbitaceae.
4. Distinguish between spices and condiments.
5. What is anomocytic stomata?
6. What are hydathodes?
7. What is microsporogenesis?
8. Draw the structure of dicot embryo.
9. Distinguish between Osmosis and Diffusion.
10. What do you mean by active absorption of minerals?

Part – B

(5 x 7 = 35 Marks)

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

11. (a) Distinguish between unilocular and plurilocular sporangium.
Or
(b) Give the diagrammatic life cycle of *Selaginella*.
12. (a) Describe the characteristic features of the family Annonaceae.
Or
(b) Write the binomial, family and useful parts of any one vegetable, fruit and cereal.
13. (a) Describe the internal structure of Dicot leaf.
Or
(b) Write notes on salt glands, nectaries and cavities.
14. (a) Describe the structure of microsporangium.
Or
(b) Write notes on the development of female gametophyte.
15. (a) Bring out the differences between cyclic and non cyclic photophosphorylation.
Or
(b) List out the physiological effects of gibberellins and cytokinins.

Part – C(3 x 15 = 45 Marks)

Answer any three of the following, each within 1200 words. Draw diagrams and flowcharts wherever necessary.

16. Describe the life cycle of *Ectocarpus*.
17. Write the binomial, family, morphology of useful parts and uses of any two edible oil, timbers, pulses and fibre yielding plants.
18. Write an essay on classification of tissues.
19. Describe the different types of endosperm.
20. Write detailed notes on Glycolysis and Krebs's cycle.
