LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – **ADVANCED ZOOLOGY AND BIOTECHNOLOGY**

FIRST SEMESTER – NOVEMBER 2017

17/16UPB1AL01 - BASICS OF PLANT BIOLOGY

Date: 13-11-2017 Dept. No. Max. : 100 Marks
Time: 01:00-04:00

PART – A

Answer the following, each within 50 words. *(10 x 2 = 20 Marks)*

1. What is clump connection in *Ectocarpus*?
2. Mention the five types of spores in the life cycle of *Puccinia*?
3. Write any four vegetables with their scientific names belonging to the family Cucurbitaceae.
4. Mention any two medicinal plants with their scientific name and uses.
5. Define nectaries.
6. List down the properties of meristematic cells.
7. Draw the structure of pollen wall and lebel the parts.
8. What is triple fusion?
9. Define transpiration
10. Write any two important roles of auxins.

PART – B

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

11. a. Describe the internal structure of stem and leaf of *Funaria*.

OR

b. Describe the internal structure of the stem of *Selaginella*.

12. a. Describe the characteristic features of the family Annonaceae.

OR

b. Write the common name, binomial, family, useful part and uses of any two vegetables and Cereals.

13. a. Discuss the different types of stomata.

OR

b. Explain the structure of dicot root.

14. a. Describe the structure of microsporangium.

OR

b. Bring out the differences between nuclear and cellular endosperm with examples.

15. a. Distinguish between cyclic and noncyclic photophosphorylation.

OR

b. Explain the steps involved in glycolysis.

PART – C

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

16. Describe the life cycle of *Puccinia*.

17. Describe the inflorescence characters of Euphorbiaceae and Poaceae.

18. Distinguish between the anatomy of dicot and monocot stem.

19. Describe the development of dicot embryo.

20. Discuss the process of Kreb's cycle and oxidative phosphorylation in plants.

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