

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



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

FIRST SEMESTER – NOVEMBER 2022

UPB 1502 – PLANT ANATOMY AND EMBRYOLOGY

Date: 03-12-2022

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

Part A

Answer the following, each within 50 words

(10 x 2 = 20 marks)

1. What are bast fibres?
2. List any two features of collenchyma.
3. What are bicollateral vascular bundles?
4. Define dendrochronology.
5. What are bulliform cells?
6. List out the type of cells in leaf epidermis.
7. Compare microsporogenesis with megasporogenesis.
8. Write a note on NPC system of classification.
9. What is triple fusion?
10. Mention chalazogamy.

PART B

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

(5 x 7 = 35 marks)

- 11a. Describe the structure of a plant cell.
or
b. Write notes on the features of parenchyma. Add a note on its special types.
- 12a. Describe the internal structure of a monocot stem.
or
b. Give an account on the types of vascular bundles.
- 13a. Explain the anatomical features of isobilateral leaf.
or
b. Write notes on the types of stomata.
- 14a. Illustrate the structure of a mature anther.
or
b. Describe briefly the different types of ovules.
- 15a. Give an account on the process of the development of dicot embryo
or
b. Write notes on endosperm and its types.

