

LOYOLA COLLEGE (AUTONOMOUS) CHENNAI – 600 034

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



FIRST SEMESTER – NOVEMBER 2024

UPB1MC02 – PLANT ANATOMY AND EMBRYOLOGY



Date: 13-11-2024

Dept. No.

Max. : 100 Marks

Time: 09:00 am-12:00 pm

SECTION A - K1 & K2 (CO1)

Q.No	Levels	Answer the following, each in about 50 words.	(10 x 2 = 20 marks)
1	K1	Comment on Histogen theory.	
2		Distinguish open and closed vascular bundle.	
3		Define Gramineous stomata.	
4		Comment on the function of sporopollenin.	
5		Illustrate the structure of ovule.	
6	K2	List the features of Conjunctive parenchyma.	
7		What are leaf gaps?	
8		What is stele?	
9		Discuss the biotic agents involved in pollination.	
10		What is meant by apomixis?	

SECTION B – K3 & K4 (CO2)

		Answer the following in 500 words.	(4 x 10 = 40 marks)
		Draw diagrams / flowcharts wherever necessary.	
11	K3	Present the characteristics and types of meristematic tissues. [OR]	
12		Explain the anatomy of dicot and monocot stem.	
13		Brief on the types of Nodal anatomy in plants. [OR]	
14		Illustrate and explain the structure of Isobilateral leaf.	
15	K4	Analyse the steps involved in abscission of leaves. [OR]	
16		Describe the internal structure of bilobed anther.	
17		Give an account on the types and significance of Parthenogenesis. [OR]	
18		Analyse the basic features, types and functions of endosperm.	

SECTION C – K5 & K6 (CO3)

		Answer the following in 1000 words	(2 x 20 = 40 marks)
		Draw diagrams / flowcharts wherever necessary.	
19	K5	Elaborate on the theories for the organisation of apical meristems. [OR]	
20		Describe the anomalous secondary growth in <i>Dracaena</i> and <i>Boerhaavia</i> .	
21	K6	Elucidate the contrivances to promote self and cross pollination. [OR]	
22		Elaborate the process of embryonic development in <i>Capsella</i> .	

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