



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FOURTH SEMESTER – APRIL 2023

UPB 4501 – ANGIOSPERM TAXONOMY AND ECONOMIC BOTANY

Date: 02-05-2023

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

SECTION A - K1 (CO1)

Answer ALL the Questions

(10 x 1 = 10)

1. **Fill in the blanks**

- a) The word Taxonomy was first used by the great Botanist _____ in 1813.
- b) The early angiosperms were _____, rather than trees or shrubs.
- c) The scientific name for basil is _____.
- d) The scientific name of Bitter gourd is _____.
- e) _____ is the scientific name for clove.

2. **State whether the following statements are TRUE or FALSE**

- a) The Bentham & Hooker system of classification is A phylogenetic system of classification.
- b) The molecular data of APG system with respect to DNA sequences of two chloroplast genes and one nuclear gene.
- c) The scientific name of custard apple is *Annona squamosa*.
- d) The duplicate specimens of holotype are called isotype.
- e) The key which provides both choices side-by-side is called bracketed key.

SECTION A - K2 (CO1)

Answer ALL the Questions
10)

(10 x 1 =

3. **Choose the correct answer**

- a) The first Director of Royal Botanical Garden is
a. Linnaeus b. J.D. Hooker c. George Bentham d. Engler
- b) The first set of international rules was convened in
a. Paris b. Vienna c. China d. India
- c) *Polyalthia longifolia* belongs to the family
a. Cucurbitaceae b. Fabaceae c. Annonaceae d. Orchidaceae
- d) The scientific name of Mint is
a. *Ocimum sanctum* b. *Mentha viridis* c. *Coccinea indica* d. *Ixora coccinea*
- e) RFLP is expanded as
a. Random Fragment Length Polymorphism b. Restricted Fragment Length Polymorphism
c. Reserved Fragment Length Polymorphism d. Restricted Fundamental Length Polymorphism

4. **Answer the following, each in about 50 words**

- a) Expand DELTA
- b) Write a note on Monophyletic origin.
- c) Summarize APG.
- d) Explain on Drupe.

e)	Infer about Cyme inflorescence.
SECTION B - K3 (CO2)	
	Answer any TWO of the following in 500 words (2 x 10 = 20) Draw diagrams / flowcharts wherever necessary
5.	Compute the importance, scope, and objectives of Taxonomy.
6.	Sort out the characteristics features of <i>Murraya Koengii</i> .
7.	Categorize the Taxonomic Hierarchy.
8.	Illustrate and explain the floral characters of Nymphaeaceae.
SECTION C – K4 (CO3)	
	Answer any TWO of the following in 500 words (2 x 10 = 20) Draw diagrams / flowcharts wherever necessary
9.	Analyze the characteristics features of <i>Ixora coccinea</i> .
10.	Inspect the economic importance of the family Cucurbitaceae and Solanaceae with examples.
11.	Compare the different types of dichotomous keys with examples.
12.	Summarize the characteristic features of the family Euphorbiaceae.
SECTION D – K5 (CO4)	
	Answer any ONE of the following in 1000 words (1 x 20 = 20) Draw diagrams / flowcharts wherever necessary
13.	Elucidate the characteristic features of any two subfamilies of Fabaceae.
14.	Evaluate the characteristic features of Euphorbiaceae and Poaceae.
SECTION E – K6 (CO5)	
	Answer any ONE of the following in 1000 words (1 x 20 = 20) Draw diagrams / flowcharts wherever necessary
15.	Compile the common name, scientific name, family, useful parts, and uses of any two each of essential oils, edible oils, spices and condiments.
16.	Explain the role of different molecular techniques in Taxonomy.

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