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G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.**UG DEGREE END SEMESTER EXAMINATIONS - NOVEMBER 2025.**

(For those admitted in June 2021 and later)

PROGRAMME AND BRANCH: B.Sc., BOTANY

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
V	PART - III	CORE	U21BO508	MORPHOLOGY AND TAXONOMY OF ANGIOSPERMS

Date & Session: 05.11.2025/FN**Time: 3 hours****Maximum: 75 Marks**

Course Outcome	Bloom's K-level	Q. No.	SECTION – A (10 X 1 = 10 Marks) Answer ALL Questions.
CO1	K1	1.	Which of the following is not a part of the taxonomic hierarchy? a) Family b) Class c) Kingdom d) Organism
CO1	K2	2.	The International Code of Botanical Nomenclature (ICBN) is primarily concerned with: a) Rules of plant classification b) Rules for plant naming and nomenclature c) Principles of plant reproduction d) Plant cultivation methods
CO2	K1	3.	Which of the following is a characteristic of the Bentham and Hooker system of classification? a) Based on evolutionary relationships b) Focuses on morphological features c) Includes molecular data d) Primarily used for animals
CO2	K2	4.	The APG system of classification is primarily based on: a) Fossil evidence b) Phylogenetic relationships derived from molecular data c) Morphological traits d) Geographical distribution of species
CO3	K1	5.	Which of the following is a characteristic of the Gynoecium in a flower? a) Male reproductive organ b) Consists of stamens c) Female reproductive organ d) Forms the outermost whorl
CO3	K2	6.	What is the primary function of a herbarium? a) To store plant seeds b) To preserve plant specimens for research and identification c) To cultivate rare plant species d) To classify plants based on their genetic makeup
CO4	K1	7.	Which of the following is a characteristic feature of the Solanaceae family? a) Herbaceous plants with aromatic leaves b) Presence of capsular fruits and alkaloids c) Trees with compound leaves d) Flowers with a single pistil and multiple stamens
CO4	K2	8.	The economic importance of Rubiaceae includes the production of: a) Coffee and quinine b) Peanuts and soybeans c) Spices and medicinal oils d) Cotton and jute
CO5	K1	9.	Which of the following is a characteristic feature of flowers in the family Cactaceae? a) Flowers with multiple whorls and large petals b) Zygomorphic flowers with a central pistil c) Unisexual flowers with many stamens d) Radial symmetry with numerous small petals

CO5	K2	10.	Which family is characterized by grass-like plants, hollow stems, and a monocot structure? a) Poaceae b) Rhizophoraceae c) Lauraceae d) Bignoniaceae
Course Outcome	Bloom's K-level	Q. No.	SECTION – B (5 X 5 = 25 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K3	11a.	Explain the principles of taxonomic hierarchy in plant systematics. (OR)
CO1	K3	11b.	Describe the concept of typification in plant taxonomy.
CO2	K3	12a.	What are the merits and demerits of the Bentham and Hooker system of classification? (OR)
CO2	K3	12b.	Explain the APG system of classification and its significance.
CO3	K4	13a.	What is the importance of herbarium preparation and how is it done? (OR)
CO3	K4	13b.	Explain the characteristics of racemose inflorescence with examples.
CO4	K4	14a.	Discuss the economic uses of plants from the Meliaceae family. (OR)
CO4	K4	14b.	Describe the floral morphology of the Ranunculaceae family.
CO5	K5	15a.	Describe the morphological features of the Cactaceae family. (OR)
CO5	K5	15b.	Explain the floral characteristics of the Poaceae family.

Course Outcome	Bloom's K-level	Q. No.	SECTION – C (5 X 8 = 40 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K3	16a.	Explain the history of plant taxonomy and its significance in modern classification systems. (OR)
CO1	K3	16b.	Describe the rules and regulations of the ICBN.
CO2	K4	17a.	Compare the Bentham and Hooker system with the Engler and Prantl system of classification. (OR)
CO2	K4	17b.	Describe binomial nomenclature and the process of preparing a dichotomous key.
CO3	K4	18a.	Explain the structure and functions of the floral parts: Calyx, Corolla, Androecium, and Gynoecium. (OR)
CO3	K4	18b.	Discuss the different types of placentation in plants.
CO4	K5	19a.	Discuss the floral and morphological features of the Rubiaceae family. (OR)
CO4	K5	19b.	Compare the floral and morphological characteristics of the families Euphorbiaceae and Caryophyllaceae.
CO5	K5	20a.	Discuss the floral and morphological characteristics of the families Lythraceae. (OR)
CO5	K5	20b.	Compare the morphology, floral structure, and ecological adaptations of the Dioscoreaceae and Lauraceae families.