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**G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.**



**UG DEGREE END SEMESTER EXAMINATIONS - APRIL 2025.**

(For those admitted in June 2021 and later)

**PROGRAMME AND BRANCH: B.Sc., BOTANY**

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
VI	PART - III	CORE ELECTIVE	U21BO6E2A	HORTICULTURE AND PLANT BREEDING

**Date & Session: 29.04.2025/FN**

**Time : 3 hours**

**Maximum: 75 Marks**

Course Outcome	Bloom's K-level	Q. No.	SECTION - A (10 X 1 = 10 Marks) Answer <u>ALL</u> Questions.
CO1	K1	1.	The science that deals with the production of fruit crops is called as a) Olericulture b) Pomology c) Sericulture d) Apiculture
CO1	K2	2.	The plant that completes its life span in one growing season is a) Evergreen b) Annual c) Perennial d) Biennial
CO2	K1	3.	A line of closely placed shrubs or trees planted to form a barrier or boundary is known as a) Orchard b) Forest c) Grove d) Hedge
CO2	K2	4.	A gardening practice which involves pruning shrubs into shapes like balls, boxes or elaborate designs is a) Pollarding b) Edges c) Arches d) Topiary
CO3	K1	5.	What is the purpose of a nursery? a) To sell fruits and vegetables b) To produce fertilizers for agriculture use c) To conduct research on plant genetics d) To grow and nurture young plants until they are ready for transplantation
CO3	K2	6.	IAA is a a) Growth inhibitor b) Manure c) Growth regulator d) Mutagen
CO4	K1	7.	The primary goal of pure line method in plant breeding is a) To develop hybrids with high yield potential b) To introduce disease resistance genes in crops c) To cross unrelated species for genetic diversity d) To select and propagate genetically uniform individuals from a single ancestor
CO4	K2	8.	When the introduced plant variety is well adapted to the new environment and is released as a commercial cultivar without any alteration in its genotype is referred to as a) Primary introduction b) Procurement c) Secondary introduction d) Quarantine
CO5	K1	9.	Which of the following is not a mutagen a) $\alpha$ -rays b) X-rays c) UV radiation d) Insecticide
CO5	K2	10.	In sexually propagated crops, which part of the plant is usually treated with a mutagen? a) Stem b) Leaf c) Seed d) Root

Course Outcome	Bloom's K-level	Q. No.	<b>SECTION – B (5 X 5 = 25 Marks)</b> <b>Answer ALL Questions choosing either (a) or (b)</b>
CO1	K3	11a.	Define horticulture. Mention its scope and importance? <b>(OR)</b>
CO1	K3	11b.	What are the merits and demerits of vegetative propagation?
CO2	K3	12a.	Provide brief explanation on i) Flower beds                      ii) Arches                      iii) Rockery <b>(OR)</b>
CO2	K3	12b.	What are the general procedures adopted to implement bonsai? Explain with examples.
CO3	K4	13a.	What is a kitchen garden? Explain suitable methods to prepare a kitchen garden? <b>(OR)</b>
CO3	K4	13b.	Explain the various steps involved in the preparation of nursery beds.
CO4	K4	14a.	What are the scope and objectives of plant breeding? <b>(OR)</b>
CO4	K4	14b.	Comment on the merits and demerits of plant introduction?
CO5	K5	15a.	With the help of suitable examples, describe the process of mutation breeding. <b>(OR)</b>
CO5	K5	15b.	Define polyploidy breeding and list out its applications.

Course Outcome	Bloom's K-level	Q. No.	<b>SECTION – C (5 X 8 = 40 Marks)</b> <b>Answer ALL Questions choosing either (a) or (b)</b>
CO1	K3	16a.	What is vegetative propagation? Explain with respect to cutting, layering and grafting. <b>(OR)</b>
CO1	K3	16b.	Elaborate the process of budding with suitable examples.
CO2	K4	17a.	Write a brief account on different types of gardens and methods of lawn maintenance. <b>(OR)</b>
CO2	K4	17b.	Differentiate between, (i) Hedges and edges (ii) Bottle garden and terrarium
CO3	K4	18a.	Elaborate the significance of composting in kitchen gardening and add a note on how a compost pit can be constructed? <b>(OR)</b>
CO3	K4	18b.	What is transplantation? Explain the major steps involved in transplantation?
CO4	K5	19a.	What are the different types of hybridization? What are the major difficulties and consequences of plant hybridization. <b>(OR)</b>
CO4	K5	19b.	Define heterosis breeding. List out its characteristics, achievements and applications in crop involvement.
CO5	K5	20a.	Explain in detail about the production of disease resistant crops by plant breeding with suitable examples. <b>(OR)</b>
CO5	K5	20b.	Discuss the major sources of pest resistance in crop plants and analyze their relative usefulness in plant breeding.