## **Assignment Titles for Fourth Semester- 2020-2022 Batch**

Roll No.	Name	Assignment Titles
		4.1.a. Plant genome organization: Nucleus, Chloroplast and Mitochondria.
		4.1.b. Structural features of a typical plant gene.
		4.2. Non probability sampling techniques and random sampling techniques.
2020023460001	SAMUEL M	4.3. Water irrigation; advanced irrigation system such as drip, microtube and sprinkler systems.
		4.1.a. Molecular markers – STS, Microsatellites, RAPD, SCAR and AFLP.
		4.1.b. Tagging, mapping and cloning of plant genes
		4.2. Measures of central tendency: Mean - median - mode
2020023460002	ARUL KAVITHA V	4.3. Vegetative propagation using stem, leaf and root cuttings
		4.1.a. Mitochondrial genome and Cytoplasmic male sterility
		4.1.b. Regulation of gene expression in plant development
	ANBU KIRAN SINGH	4.2. Measures of dispersion: Range - mean deviation - standard deviation.
2020023460003	S	4.3. Propagation by division and layering, bulbs, corms, tubers and rhizomes-budding and grafting
		4.1.a. Classification and functions of Seed storage proteins.
		4.1.b. Plant hormones and Plant transposons
		4.2. Test of significance: Null hypothesis - alternate hypothesis
		4.3. Indoor gardening: Foliage plants, flowering plants, hanging basket, Bonsai plants - Training
2020023460004	SUBASRI K	and pruning.
		4.1.a. Molecular Pharming and Transgenic plant derived products for commercial applications
		4.1.b. Golden rice and FlavrSavr®
		4.2. Data base searches - FASTA, BLAST - PSI BLAST
		4.3. Principles and methods of designing outdoor garden - hedges, edges, fences, trees, climbers,
2020023460005	MEENA S	rockeries, arches, terrace garden
		4.1.a. Direct Plant transformation techniques.
		4.1.b. Selectable markers: Types and their role in plant transformation.
		4.2. PHYLODRAW- Phylogenetic tree.
2020023460006	JENIFER SHIRLY T	4.3. Production of seeds, their certification, storage and germplasm collection
		4.1.a. Symbiotic nitrogen fixation in legumes by Rhizobia
		4.1.b. Reporter genes: Types and role in optimizing transformation
		4.2. Sequence alignment - sequence similarity searches, amino acid substitution matrices
		4.3. Micropropagation – Introduction, stages and types of explants for commercial propagation,
2020023460007	ARJUN S	importance and applications of micropropagation

## **Assignment Titles for Fourth Semester- 2020-2022 Batch**

		4.1.a. In-Direct plant transformation technique.
		4.1.b. Plant genetic engineering for herbicide resistance
		4.2. Laws of Thermodynamics and Energy transductions in biological systems.
		4.3. Principles and protocols, protoplast culture and fusion- Importance of protoplast fusion and
2020023460008	PRAVEENA D	applications
		4.1.a. Symbiotic nitrogen fixation in legumes by Rhizobia
		4.1.b. Reporter genes: Types and role in optimizing transformation.
		4.2. Sequence alignment - sequence similarity searches, amino acid substitution matrices
2020023460009	GOWRI K	4.3. Layout for a model college garden
		4.1.a. Direct Plant transformation techniques.
		4.1.b. Selectable markers: Types and their role in plant transformation.
		4.2. Data base searches - FASTA, BLAST - PSI BLAST
2020023460010	JAYABHARATHI M	4.3. Lawn making and maintenance
		4.1.a. Plant genetic engineering for Virus resistance (Antisense RNA approach, Cross protection
		Satellite RNA, Ribozymes and Coat protein mediated protection).
		4.1.b. Promoters used in plant vectors.
		4.2. Photobiology: Dual nature of light, characteristics of solar radiation, solar energy.
		4.3. Native and synthetic hormones and other growth regulators- their importance in horticulture,
2020023460011	RAMYA P	gardening and landscaping
		4.1.a. In-Direct plant transformation technique.
		4.1.b. Plant genetic engineering for herbicide resistance
		4.2. Laws of Thermodynamics and Energy transductions in biological systems.
		4.3. Principles and protocols, protoplast culture and fusion- Importance of protoplast fusion and
2020023460012	SARANYA S	applications
		4.1.a. Direct Plant transformation techniques.
		4.1.b. Selectable markers: Types and their role in plant transformation.
		4.2. PHYLODRAW- Phylogenetic tree.
2020023460013	NIVEATHA S	4.3. Production of seeds, their certification, storage and germplasm collection
		4.1.a. Symbiotic nitrogen fixation in legumes by Rhizobia
		4.1.b. Reporter genes: Types and role in optimizing transformation.
		4.2. Sequence alignment - sequence similarity searches, amino acid substitution matrices
2020023460014	KAVIYA SHREE S	4.3. Layout for a model college garden
-		

## **Assignment Titles for Fourth Semester- 2020-2022 Batch**

		4.1.a. Molecular Pharming and Transgenic plant derived products for commercial applications
		4.1.b. Golden rice and FlavrSavr®
		4.2. Data base searches - FASTA, BLAST - PSI BLAST
		4.3. Principles and methods of designing outdoor garden - hedges, edges, fences, trees, climbers,
2020023460015	MUTHURAMALINGAM P	rockeries, arches, terrace garden
		4.1.a. Plant genome organization: Nucleus, Chloroplast and Mitochondria.
		4.1.b. Structural features of a typical plant gene.
		4.2. Non probability sampling techniques and random sampling techniques.
2020023460016	SINDHUJA M	4.3. Water irrigation; advanced irrigation system such as drip, microtube and sprinkler systems.

Last Date for Submission of Assignments: 25th March, 2022 10:00 a.m.

Hard Copies of the Assignments should reach the following address on or before the Last Date mentioned above:

Dr. M. JOTHI BASU
Programme Coordinator- M. Sc., Botany
Assistant Professor in Botany
Directorate of Distance Education
Alagappa University
Karaikudi- 630 003