

Paper Code: BOT-554

Paper Name: Plant Molecular Biology and Biotechnology

BLOCK – I : MOLECULAR BIOLOGY – I

- Unit –1 : Genome
- Unit –2 : Genome Organization in Higher Plants
- Unit –3 : Chloroplast and Mitochondrial Genomes
- Unit –4 : Structure and Organization of Eukaryotic Genes
- Unit –5 : Gene Expressions in Eukaryotes
- Unit –6 : Regulation of Gene Expression in Eukaryotes

BLOCK – II : MOLECULAR BIOLOGY – II

- Unit –7 : Restriction Endonucleases
- Unit –8 : Modifying Enzymes Used in Molecular Cloning
- Unit –9 : Cloning Vectors
- Unit –10 : Genomic and DNA Libraries
- Unit –11 : Polymerase Chain Reaction
- Unit –12 : Molecular Markers

BLOCK – III : BIOTECHNOLOGY – I

- Unit –13 : Introduction to Plant Tissue Culture and in vitro Morphogenesis
- Unit –14 : Anther, Pollen and Ovule Culture
- Unit –15 : Cryopreservation of Plant Cells and Tissues and Germplasm storage
- Unit –16 : Protoplast Culture and Somatic Hybridization

BLOCK – IV: BIOTECHNOLOGY – II

- Unit –17 : Transgenic Plants
- Unit –18 : Plant Genomics and Proteomics
- Unit –19 : Plants Metabolomics
- Unit –20 : Intellectual Property Rights and Bio-safety