

**PROGRAMME: MASTER OF SCIENCE BOTANY (MSCBOT20)**

**Year/ Semester: III<sup>rd</sup> semester**

**Course Code: MBOT-604**

**Course Name: PLANT MOLECULAR BIOLOGY**

**Syllabus**

**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