**M.Phil. Botany (Reference Incomplete)**

**Paper – II Principles of Angiosperm Taxonomy**

**Unit - I**

Classification systems prior to Darwin: Systems based on habit, sexual systems, systems based on form relationships.

Post-Darwinian systems: Systems based on Ranalien school, systems based on Englearean school.

**Unit- II**

Concept of characters: Primitive and advanced characters, Homologous and Analogous characters, Analytical and Synthetic characters, Qualitative and Quantitative characters.

**Unit - III**

Concepts of Genus, Species and Infraspecific taxa.

**Unit - IV**

Phentic and Cladistic methods of analysis and their application in Taxonomy and Systematics.

**Unit - V**

Taxonomic evidences: Evidences from Anatomy, Palynology, Cytology, Phytochemistry and Molecular Biology.

**Unit - VI**

Speciation and Isolation mechanisms.

**M.Phil. Botany**

**Paper – III Floristic Research**

**Unit - I**

Field work and Herbarium methods. Functions and kinds of Herbaria. Important Herbaria in India and abroad.

**Unit - II**

International Code of Botanical Nomenclature: Principles, Priority, Publication, Typification, Citation, Retention, Choice and Rejection of names and epithets.

**Unit - III**

Taxonomic products: Floras, Revisions and Monographs; Keys and synopses.

**Unit - IV**

Floristic Studies: Major milestones in floristic studies in India with special reference to Tamil Nadu. Floristic regions of the world. Taxonomic literature. Print and online sources.

**Unit - V**

Endemic taxa and their distribution with reference to India; IUCN red list categories.

**Unit - VI**

Applications of Floristic Research: Assessment of Natural Resources; Environmental Impact Assessment; Identification and characterization of Plant raw drugs.