

B.Sc. Forensic Science, Semester III

ES1397, Botany III

**Teaching Scheme**

Lectures: 4 hrs/Week

Tutorials: 1 hr/Week

Credits: 4

**Examination Scheme**

Class Test: 12 Marks

Teachers Assessment: 6 Marks

Attendance: 12 Marks

End Semester Exam: 70 marks

**Course outcomes:**

After the completion of the course the students will be able to:

- To gain an understanding of the history and concepts underlying various approaches to plant taxonomy and classification
- To learn the major patterns of diversity among plants, and the characters and types of data used to classify plants.
- To compare the different approaches to classification with regard to the analysis of data.
- To become familiar with major taxa and their identifying characteristics, and to develop in depth knowledge of the current taxonomy of a major plant family.
- To discover and use diverse taxonomic resources, reference materials, herbarium collections, publications.
- For the entrepreneur career in plants, one can establish a nursery, Start a landscaping business, Set up a farm Or Run a plantation consultancy firm

**Unit I – Flowering Plants Identification & Aesthetic Characteristics**

- Taxonomic Resources & Nomenclature
- Components of taxonomy (identification, nomenclature, classification), Taxonomic resources Herbarium- functions & important herbaria, Botanical gardens, Flora, Keys- single access and multi-access. Botanical Nomenclature- Principles and rules of ICN (ranks and names, principle of priority, binomial system, type method, author citation, valid-publication).

**Unit II – Types of classification & Evidences**

- Artificial, natural and phylogenetic. Bentham and Hooker (upto series), Engler and Prantl (upto series) angiosperm phylogeny group (APG III) classification
- Taxonomic evidences from palynology, cytology, phytochemistry & Molecular biology data (Protein and Nucleic acid homology).

**Unit III – Identification of Angiospermic families – I**

- A study of the following families with emphasis on the morphological peculiarities and economic importance of its members (based on Bentham & Hooker's system) -- Ranunculaceae, Malvaceae, Rutaceae, Fabaceae, Myrtaceae, Cucurbitaceae, Rubiaceae Asteraceae, Apocynaceae, Acanthaceae, Asclepiadaceae, Solanaceae

**Unit IV – Identification of Angiospermic families -II**

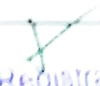
- A study of the following families with emphasis on the morphological peculiarities and economic importance of its members (based on Bentham & Hooker's system)- Amaranthaceae, Euphorbiaceae, Papaveraceae, Scrophulariaceae, Orchidaceae, Labiaceae, Araceae, Poaceae

Head 

Department of Photochemistry

Dean

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