

CC -IX - MORPHOLOGY, TAXONOMY & ECONOMIC BOTANY

Unit I

Morphology - Inflorescence - types- racemose, cymose, mixed and special types. Descriptive terminology of flower and floral parts.
Fruit-classification. Details of simple , fleshy,dry dehiscent and dry indehiscent, aggregate and multiple fruits.

Unit II

Taxonomy:- Binomial nomenclature. Systems of classification-Bentham & Hooker and Engler & Prantl. Merits and Demerits of their systems.
Herbarium Techniques.

Unit III

A detailed study of the following families and their Economic Importance- Annonaceae, Capparidaceae, Tiliaceae, Rutaceae, Anacardiaceae, Leguminosae, (Papilionoideae (Fabaceae) Caesalpinoideae (Caesalpiniaceae) & Mimosoideae (Mimosaceae) Cucurbitaceae, Apiaceae,

Unit IV

Rubiaceae, & Asteraceae. Apocyanaceae, Asclepiadaceae, Solanaceae, Convolvulaceae, Acanthaceae, Verbeneaceae, Amarantaceae, Euphorbiaceae, Orchidaceae, Liliaceae and Gramineae (Poaceae).

Unit V

Economic Botany :- A brief study of the following Economic Plants and their main economic importance products:-

- (1) Food –Cereals (Oryza, Eleusine); Pulses- (Phaseolus) , Edible oil- Sesamum; Root tubers Manihot; Sugar –Saccharum.
- (ii) Fibres-Textiles(Gossypium);Others-Crotolaria, Agave.
- (iii) Medicinal plants -Ocimum, Phyllanthus, Solanum.
- (iv) Forest products – Timber (Teak,Jack).Tannins, Gums, Resins, Turpentine.

REFERENCES

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Tata McGraw Hill Publishing Co., New Delhi-685pp.,
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Practical :

Training in dissection, observation, identification and sketching of floral parts of plants belonging to the families mentioned in the syllabus along with floral diagrams and floral formula. Description of plants in technical terms. Field study flora. Submission of 25 Herbarium specimens. Economic plants covered in theory part in taxonomy and economic botany and their importance.