

B.Sc. III Year

BBO-S603  
SEC-4 Herbal Technology

Semester – VI

MM : 100  
Time : 3 hrs

Sessional : 30  
ESE : 70  
Pass Marks : 40

Learning objective:

- To understand the about the medicinal herbs and herbal technology, and Pharmacognosy.
- To acquire an overall knowledge on Phytochemistry.
- To become familiar with Analytical pharmacognosy.
- To learned technique and acquire the information on tissue culture and micro propagation.

Learning outcomes:

At the end of course student will be able

- The student will be able to familiar with the history and role of medicinal plants in traditional systems of medicine, and medicinal uses of herbal plants.
- The student will be learned and understand the active principles and methods of their testing, identification and utilization of the medicinal herbs.
- The student will be learned about drug adulteration, types, methods of drug evaluation, and biological testing of herbal drugs, micro propagation.
- The student will be able take the decisions for carrier point of views in research, industries and academia entrepreneurship etc.

Unit 1: Herbal medicines:

(12 Lectures)

History and scope - definition of medical terms - role of medicinal plants in Siddha systems of medicine; cultivation - harvesting - processing - storage - marketing and utilization of medicinal plants.

Unit 2: Pharmacognosy:

(12 Lecturers)

Systematic position medicinal uses of the following herbs in curing various ailments; Tulsi, Ginger, Fenugreek, Indian Goose berry and Ashoka.

Unit 3: Phytochemistry:

(12 Lecturers)

Active principles and methods of their testing - identification and utilization of the medicinal herbs; *Catharanthus roseus* (cardiotonic), *Withania somnifera* (drugs acting on nervous system), *Clerodendron phlomoides* (anti-rheumatic) and *Centella asiatica* (memory booster)

Unit 4: Analytical Pharmacognosy:

(16 Lectures)

Drug adulteration - types, methods of drug evaluation -biological testing of herbal drugs - phytochemical screening tests for secondary metabolites (alkaloids, flavonoids, steroids, triterpenoids, phenolic compounds).

Unit 5: Tissue Culture and Micro-propagation

(8 Lectures)

Medicinal plant banks, micro propagation of important species, for example *Withania somnifera*; neem and tulsi; herbal foods; future of pharmacognosy).

Audh  
17.4.24

Ashokh

P.P

K.S

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Palpani  
Chiff.

Chiff

Sharma

Sharma