

PHARMACOGNOSY - BP405T

UNIT : 1(INRODUTION TO PHARMACOGNOSY)

CLASS:1

TOPIC: DEFINITION, HISTORY, SCOPE AND DEVELOPMENT OF PHARMACOGNOSY :

Definition of pharmacognosy:

The study of medicinal substances of biological origin, particularly those derived from plants, animals, and microbes, including their physical, chemical, biochemical, and biological properties, and their potential for medicinal use.

The term pharmacognosy came from two Greek word.

Pharmakon - drug or medicine

Gnosis _ knowledge

It is study of medicinal uses of various naturally occurring drugs & its history, sources, distributions, methods of cultivation, active constituents, medicinal uses, identification tests preservation methods substituent's & adult rants.

Plant preparations are said to medicinal (or)herbal when they are used to promote health beyond the botany & chemistry & pharmacology.

Botany includes the identification (taxonomy) genetics, cultivation of plants.

Cheical characterization includes the isolation , identification & Quantification of constituents in plant materials.

Pharmacology is the study of biological effects that the chemicals in medicinal plants have on cell cultures in medicinal plants have on cell cultures,animals &human practical preservatives ass follows.

I,Quality control (identify ,purity, consistency)

II, Efficacy (Therapeutic indications)

History of pharmacognosy:

History of herbal medicines is as old as human civilization

Plants were used medicinally in China, India, Egypt & Greece long before the beginning of the Christian era.

One of the most famous surviving remnants is

Papyrus Ebers A scroll of 60 long foot wide dating back

16th century before Christ.

The text of document is dominated by more than 800 formulae and 700 different drugs

Eg:- Acacia, castor oil, fennel.

Most of the medicinally active substances identified in 19th-20th century used in the form of crude form.

The oldest known herbal is **pen-tsao** written by an emperor Shen Nung around

3000 BC. It contains 365 drugs, one for each day of the year.

India also, worked meticulously to methodically to examine and classify herbs come across into groups called as Guans

Charka made 50 groups of 10 herbs each of which according to him

Called as **charka samhita**.

Sushruta arranged 760 herbs in 7 distinct sets based on some of common properties called as **sushruta samhita**.

A large portion of the Indian population even today depends on Indian system of medicine Ayurveda "An ancient science of life".

The following contribution to Medicine by **Hippocrates** (460-360 BC)

Father of medicine..

* Before the birth of Jesus. He was Greek scientist, He worked on human anatomy & physiology particularly on circulatory systems & nervous system he prepared famous oath for physicians, which is still taken by the physicians.

Work of **Galen**. Galen was Greek pharmacist, he worked on extraction of chemical constituents from plants and animals.

Scope of pharmacognosy :

Pharmacognosy has wide & broad scope in the field of pharmacy.

1, Drug discovery : pharmacognosy plays an important role in the discovery of new drugs.

2. Synthetic drug & antibiotics : many of the drugs are made by using chemicals obtained from plants
Antibiotics are also obtained from plants & microorganism.

Eg. Cinchona (anti malarial)

3. Herbal medicine : it is closely connected with development of herbal medicine.

It does not have any toxic or no side effects

They gained popularity in recent years

4. Novel medicines : The evaluation of novel medicines depends on pharmacognosy.

The new chemical constituents are extracted and the product is formulated and it used as a new drug

5. Medicinal plant : These are found in all parts of India

It cures complex diseases like cancer, AIDS

These are treated by plant drugs or remedies which are safer than synthetic medicines

6. Isolation, purification & identification : A person can take medicinally active compounds can be isolated, purified & identified & then used.

7. Tissue culture: This technique is new now a days widely applicable for the production of secondary metabolites like _ Alkaloids, glycosides.

8. In steroidal industry: many pharmaceutical industries are involved in the extraction of diosgenin from dioscorea species

Important precursor for production of steroids.

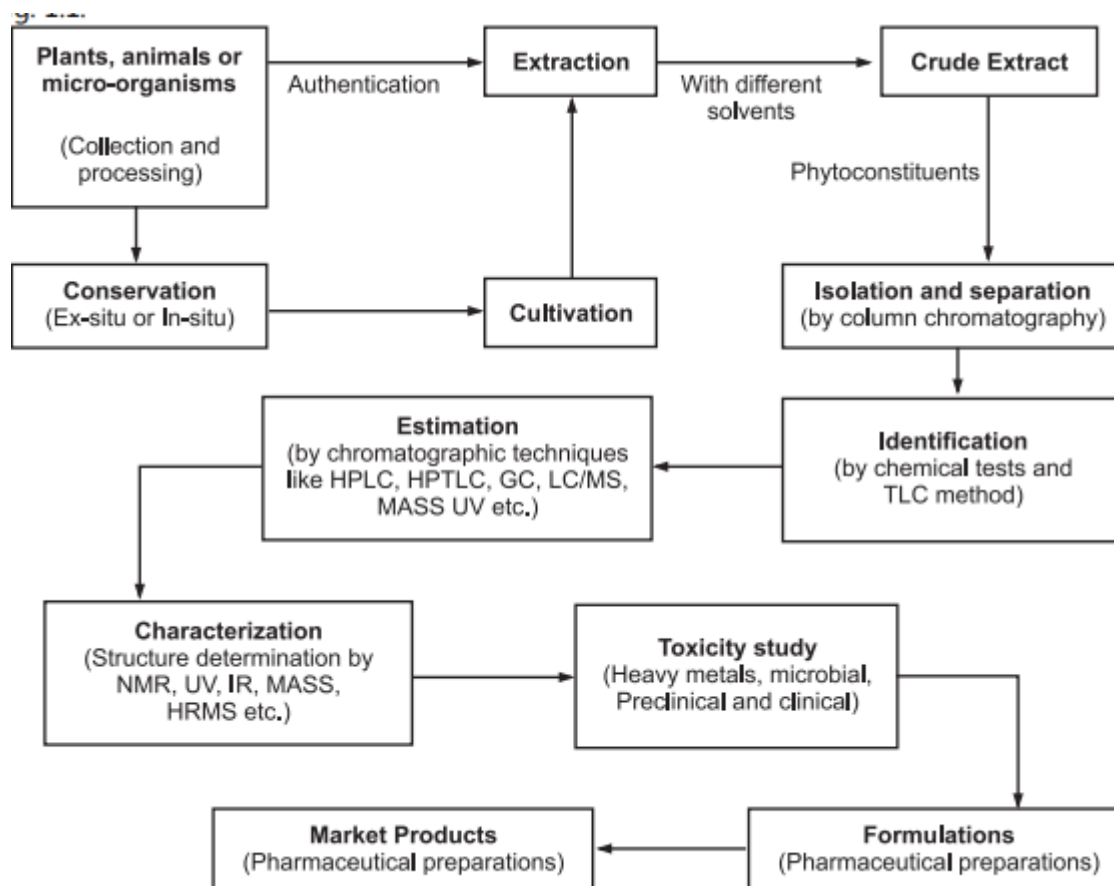


Fig. 1.1: Sequential development of herbal products

Long Essays:

1. Explain history, scope and development of Pharmacognosy

Short Essays:

1. Explain modern Pharmacognosy.
2. Explain the scope of Pharmacognosy.
3. Explain the application of Pharmacognosy