

Pharmacognosy – I

Theory 3Hours/Week

UNIT – I

1. Definition, history, scope and development of pharmacognosy.
2. Sources of drugs: Biological, marine, mineral and plant tissue culture as sources of drugs.
3. Classification of natural drugs: Alphabetical, Morphological, Taxonomical, Chemical, Pharmacological / Therapeutical and Chemotaxonomical classification of drugs.

UNIT – II

4. Cultivation, collection, processing and storage of plant drugs: Factors influencing cultivation of medicinal plants. Types of soils and fertilizers of common use. Pest management and natural pest control agents. Plant hormones and their applications. Polyploidy, mutation and hybridization with reference to medicinal plants.

UNIT – III

5. Quality control of crude drugs: (General methods only) Adulteration of crude drugs and their detection by organoleptic, microscopic, physical, chemical and biological methods of evaluation.
6. General introduction to secondary metabolites of plant origin with their properties.

UNIT – IV

8. Systematic pharmacognostic study of the following:
 - a) Carbohydrates and derived products: Agar, Guar gum, Acacia, Honey, Isabgol, Pectin Starch and Tragacanth.
 - b) Lipids: Bees wax, Castor oil, Cocoa butter, Cod-liver oil, Hydnocarpus oil, Kokum butter, Lard, Linseed oil, Shark liver oil and Wool fat.

UNIT –V

7. **Resins:** Study of Drugs Containing Resins and Resin Combination like colophony, podophyllum, jalap, cannabis, capsicum, myrrh, asafetida, balsam of tolu, balsam of Peru, benzoin, turmeric, ginger.
8. **Tannins:** Study of tannins and tannin containing drugs like gambir, black catechu, gall and myrobalan.

PHARMACOGNOSY – I

PRACTICAL 3 hours/week

(A minimum of 15 experiments shall be conducted)

1. Identification of crude drugs belonging to carbohydrates (morphological and chemical).
2. Identification of crude drugs belonging to lipids.
3. Identification of crude drugs mentioned in theory (at least 5)
4. Study of fibres
5. Study of pharmaceutical aids.
6. Microscopic studies of 8-10 selected crude drugs and their powders mentioned in theory and their chemical tests.

RECOMMENDED BOOKS:

1. Text Book of Pharmacognosy by Kokate C K, Purohit A P, Gokhale S B (Nirali Prakashan,

Pune)

2. Trease G.E. and Evans W.C., Pharmacognosy (Balliere Tindall, Eastbourne)
3. Text Book of Pharmacognosy by T.E.Wallis.(CBS Publishers & Distributors, New Delhi)
4. Tyler V.E., Brady L.R. and Robbers J.E., Pharmacognosy (Len & Febiger, Philadelphia)