

PHARMACOGNOSY-IV

Subject Code: THEORY 3 hours/ week

UNIT-I

1. General methods of extraction, isolation and chemical tests of Alkaloids.
2. Systematic study of source, cultivation, collection, chemical constituents, adulterants, uses, macroscopic, microscopic features and chemical tests of the following alkaloids containing drugs.

Pyridine- Piperidine Tobacco, Arica, Lobelia

Tropane- Belladonna, Hyoscyamus, Daturas, Withania.

Quinoline and Isoquinoline- Cinchona, Ipecac, Opium

Indole- Ergot, Rauwolfia, Catharanthus, Nux-vomica, Physostigma

Imidazole- Pilocarpus

Steroidal- Veratrum and Kurchi

Alkaloid amines- Ephedra, Colchicum

Glycoalkaloid- Solanum

Xanthine alkaloid- Coffee, Coca.

UNIT-II

3. Study of traditional drugs, common vernacular names, botanical source, chemical constituents, uses and marketed formulations (any two) of the following drugs :
4. Amla, Satavari, Bhilwua, Bael, Bach, Rasna, Punarnava, Gokhru, Shankhapusphi, Brahmi Aduva, Arjuna, Lahsun, Guggul, Gymnema, Neem, Tulsi, Shilajit and Spirulina.

UNIT-III

5. Holistic concept in traditional system of medicine. Introduction of ayurvedic preparation like Asvas, Aristas, Guticas, Tailas, Lehyas and Bhasmas.

UNIT-IV

6. Utilization and production of phytoconstituents such as Quinine, Calcium sennosides, Podophyllotoxin, Diosgenin and Tropane alkaloids.

UNIT-V

7. Separation of phytoconstituents by using Chromatographic techniques.
 - i. Paper chromatography
 - ii. Column chromatography
 - iii. Thin layer chromatography