

PHARMACOGNOSY-III

PH.3.7 THEORY

3 hours/ week

UNIT -I

1. General methods of isolation and preliminary phytochemical screening of glycosides.
2. Study of the biological source, cultivation, collection, chemical constituents, adulterants, uses, macroscopic, microscopic features and chemical tests of following group of drugs containing –
 - i) Saponins : Liquorice, ginseng, dioscorea, sarasparilla and senega.
 - ii) Cardioactive sterols : Digitalis, squill and strophanthus
 - iii) Anthraquinone cathartics : Aloes, senna, rhubarb and cascara.
 - iv) Others : Psoralea, gentian, saffron, chirata and quassia

UNIT -II

3. Biological sources, preparation, identification tests and uses of the following enzymes: Diastase, papain, pepsin, trypsin, pancreatin.
4. General techniques of biosynthetic studies and basic metabolic pathways. Biogenesis of aromatic aminoacids, steroidal glycosides , tropane alkaloids and indole alkaloids.

UNIT -III

5. Historical development of plant tissue culture, types of cultures, nutritional requirements, growth and their maintenance. Application of plant tissue cultures with special reference to production of secondary metabolites.

UNIT -IV

6. An introduction to poisonous plants in India.
7. Marine pharmacognosy, novel medicinal agents from marine sources.