

PHARMACOGNOSY-III
THEORY 3 hours/ week

MODULE -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) Cardioactiversterols : Digitalis, squill and strophanthus
 - iii) Anthraquinonecathartics : Aloes, senna, rhubarb and cascara.
 - iv) Others :Psoralea, gentian, saffron, chirata and quassia

MODULE -II

3. Biological sources, preparation, identification tests and uses of the following enzymes: Diastase, papain, pepsin, trypsin, pancreatin.
4. Basic metabolic pathways. Techniques used to study of various pathway. Biogenesis of aromatic aminoacids, steroidal glycosides , tropane alkaloids and indole alkaloids.

MODULE -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.

MODULE -IV

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

MODULE-V

8. Study of Nutraceuticals: General introduction, Classification, minerals & vitamin supplements, Digestive enzymes, Probiotics, Dietary fibres, Cereals & grain, Health drinks.