

**PS804: PHARMACOGNOSY – III****B. Pharm IV Year II sem**

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<b>3</b>	<b>1</b>	<b>0</b>	<b>3</b>

**Course Objectives:** To learn about the therapeutically important crude drugs and phytopharmaceuticals under a suitable pharmacognostic scheme and the importance of plant tissue culture in pharmacy. To make the student aware of biologically important molecules from marine sources and nutraceuticals.

**Course Outcome:** Since it is being the last part of Pharmacognosy subject, the student must be enriched with the knowledge on the crude drugs in a systematic way and in the use of crude drugs and phytopharmaceuticals in various systems of medicine for the treatment of different ailments and in various industries.

**UNIT - I**

General introduction to Alkaloids. Systematic pharmacognostic study of the: Cinchona, Tea, Black Pepper, Ergot, Opium, Ipecac, Vinka and Rauwolfia.

Biological source, Chemical constituents. Chemical test and uses of following: Belladonna, Ephedra, Colchicum, Datura, Kurchi, Nux-vomica, Solanum, Tobacco, Withania and Vasaka.

**UNIT - II**

General introduction to Glycosides. Systematic pharmacognostic study of : Aloe, Digitalis ,liquorice and Senna. Biological sources, chemical constituents, tests for identification and uses of following crude drugs: Ammi, , Cascara, Chirata, Dioscoria, Gentian, Ginseng and Strophanthus gratus.

**UNIT - III**

Historical development of plant tissue culture: Types of cultures, nutritional requirements, establishment of cultures, measurement of growth in cultures and their maintenance. Applications of plant tissue culture in production of pharmaceutically important secondary metabolites.

**UNIT - IV**

- A brief introduction to Ayurveda and its preparations like Arishtas, Asavas, Gutickas, Tailas, Churnas, Lehyas and Bhasmas.
- b.Nutraceuticals : Definition of functional foods and nutraceuticals, classification of nutraceuticals. Source, chemical nature, medicinal uses of Spirulina, Garlic, Soya and Gingko.

**UNIT - V**

- A brief account on standardization parameters of herbal drugs as per WHO guidelines.
- Study of analytical profiles of following medicinal plants using WHO protocols. *Andrographis paniculata*, *Bacopa monneri*, *Boswellia serrata* and *Coleus forshkohlii*.

**TEXT BOOKS**

- J.B.Harbone, Phytochemical Methods: A guide to modern techniques of Plant analysis by
- Kokate C.K, Purohit AP & Gokhale S.B, The Pharmacognosy (Nirali)
- Trease and Evans, Pharmacognosy, Latest Edition.

**REFERENCES**

- Arya Vaidyasala Vol. 1-5, Indian Medicinal Plants – Universities Press
- T.E. Wallis, Text Book of Pharmacognosy.