

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BACHELOR OF PHARMACY**

Semester: 4

**Subject Code: 240006**

**Subject Name: Pharmacognosy – III**

<b>Sr. No.</b>	<b>Course content</b>	<b>Proposed No. of Hours of Teaching</b>
1.	Study of the biological sources, cultivation, collection, commercial varieties, chemical constituents, substitutes, adulterants, uses, diagnostic macroscopic and microscopic features and specific chemical tests of following groups of drugs containing glycosides: i. Saponins: <u>Liquorice</u> , ginseng, dioscorea, Senega, Sarsaparila, Quillaia ii. Cardioactive sterols: <u>Digitalis</u> , squill, strophanthus, Thevetia iii. Anthraquinone cathartics: Aloe, <u>senna</u> , rhubarb, cascara, Cassia iv. Bitter glycosides: Gentian, picrorrhiza, <u>chirata</u> , kalmegh, <u>Quassia</u> v. Coumarins: Psoralea, <u>Ammi majus</u> , <u>Ammi visnaga</u> vi. Cyanogenetic glycosides: Almond, <u>Linseed</u> vii. Isothiocyanate glycosides: Mustard, Black mustard viii. Flavanoids: Rutagraveolens	22
2	Enzymes: Biological sources, preparation, identificatoion test and uses of following Diastase, Papain, Pepsin, Trypsin, Pancreatin	08

**Pharmacognosy – III – Practicals (45 Hours)**

1. Identification of crude drugs listed in theory.
2. Microscopic study of underlined important glycoside containing crude drugs.

**Reference Books:**

1. Trease and Evans Pharmacognosy. Fifteenth Edition, William Charles Evans, W. B. Saunders, Edinburg London New York Philadelphia St. Louis Sydney Toronto 2002.
2. Pharmacognosy: V. E. Tyler, L. R. Brady, J. E. Habbers, Lea and Febiger Philadelphia, 9<sup>th</sup> Edition, 1988.
3. A Text book of Pharmacognosy: C. S. Shah, J. S. Quadry, B. S. Shah Prakashan, Ahmedabad. 13<sup>th</sup> Edition, 2007-08.

4. Textbook of Pharmacognosy: T. E. Wallis, CBS Publishers and Distributors, New Delhi, 5<sup>th</sup> Edition, reprinted, 2003.
5. A Textbook of Pharmacognosy. Fifth Edition, T. C. Denston, Pitman Medical Publishing Co. Ltd., London.
6. Modern Pharmacognosy. Egil Ramstad, McGraw-Hill Book Company, London, New York, Toronto.
7. Textbook of Pharmacognosy. Sixth Edition, 1948, Heber W. Youngken, The Blakiston Company, Toronto.
8. Pharmacognosy: Phytochemistry Medicinal Plants. Jean Bruneton, 2nd Edition; 1999. Intercept Ltd., London, Editions TEC & DOC Paris.
9. Laboratory Handbook for the fractionation of Natural extracts by Peter Houghton and Amala Raman, Chapman & Hall Madras, 1998.
10. Cultivation and Utilization of Aromatic Plants, Handa S. S. and Kaul M. K., RRL Jammu.
11. Cultivation and Utilization of Aromatic Plants, Atal C. K. and Kapur B. M., RRL Jammu.