

GUJARAT TECHNOLOGICAL UNIVERSITY**B.PHARM- SEM-IV-EXAMINATION – MAY 2012****Subject code: 240006****Date: 30/05/2012****Subject Name: Pharmacognosy III****Time: 10:30 am – 01:30 pm****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Give structural relationship between anthraquinone and its reduced derivatives. **06**
- (b) Write Borntrager's test and its modification required to identify different derivatives of anthraquinones. **05**
- (c) Write in detail about mechanism of action of anthraquinone glycosides pertaining to their purgative action. **05**
- Q.2** (a) Give Differences between **06**
 i) *Ammi Visnaga/ Ammi majus* .
 ii) *Purpurea glycosides/ Lanatosides*.
 (b) Method of preparation of Cape and Curacao aloe. **05**
 (c) Write a note on Different species of *Strophanthus* and importance of reaction of H₂SO₄ for them. **05**
- Q.3** (a) Write in detail about properties and chemistry of saponins. **06**
 (b) Write in detail about the methods for estimation of saponins in crude drugs. **05**
 (c) Define cyanogenetic glycosides, classify them and give the chemical test for their identification along with the underlying principle. **05**
- Q.4** (a) Give classification of enzymes by different methods. **06**
 (b) Write in chemical tests for papain and amylase. **05**
 (c) Write a detailed note on rutin and its sources. **05**
- Q.5** (a) Give Botanical sources, family, chemical constituents and uses of underground drugs containing bitter glycosides. **06**
 (b) Define glycosides, classify them and give their chemistry. **05**
 (c) Give chemical tests for cardenolides and deoxy sugars. **05**
- Q.6** (a) Comment on following: **06**
 i) Star spots are important for identification of Rhubarb..
 ii) Hydroxyl group at C-14 is mandatory for the cardiotonic action of cardiac glycosides.
 iii) Cascara is to be stored for one year prior to use.
 (b) Write a note on Ginseng and its adulterants. **05**
 (c) Write structure activity relationship of furanocoumarins pertaining to their photosensitizing action. **05**
- Q.7** (a) Comment on following: **06**
 i) Trichomes are important for identification of leaf drugs.
 ii) Scilla is to be dried at 50 to 60 °C immediately after collection.
 (b) Write in detail about the drug containing steroidal Saponins. **05**
 (c) Write in detail about Chirata and Bengal Chirata. **05**