

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – V • EXAMINATION – WINTER • 2014

Subject Code: 2250006

Date: 08-12-2014

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) Define glycosides. Give their classification, properties and method of isolation. **06**
(b) What are saponins. Write chemistry and importance of steroidal saponins. **05**
(c) Write a note on plant sources of Diosgenin. **05**
- Q.2** (a) Write a note on anthraquinones and their reduced forms. Write mechanism of action pertaining to their purgative activity. **06**
(b) Write in detail methods of preparation of an unorganized drug containing anthraquinones of your syllabus. **05**
(c) Give your comments on following: **05**
i) Importance of Star spots in Rhubarb
ii) Importance of trichomes in identification of leaf drugs.
iii) Importance of drying of *Digitalis* leaf immediately after collection.
- Q.3** (a) Give botanical source, family, chemical constituents and uses of saponin containing drugs of your syllabus belonging to family Leguminosae. **06**
(b) Write a note on ginseng and its adulterant. **05**
(c) Write a note on Indian senna. **05**
- Q.4** (a) Define tissue culture. Discuss its applications and importance in the field of plant biotechnology. **06**
(b) Write in detail about protoplast culture. **05**
(c) Write on cyanogenetic glycosides. **05**
- Q.5** (a) Enlist the drugs containing bitter glycosides and give detailed information on drugs of underground origin. **06**
(b) Write a note on classification of flavanoids. **05**
(c) Write differences between *Digitalis purpurea* and *Digitalis lanata* **05**
- Q.6** (a) Define and classify cardiac glycosides. Give chemical tests for their identification. **06**
(b) Enlist drugs containing cardiac glycosides belonging to family *Apocynaceae* and give their botanical source and write a note on chemical constituents of a seed drug. **05**
(c) Give classification of coumarins and write in detail about Psoralea and Bhangro **05**
- Q.7** (a) Write a note on immobilization technique. **06**
(b) Discuss elicitation and biotransformation techniques. **05**
(c) Write a note on components of culture medium. **05**
