

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.

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|-------------|---|-----------|
| 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 <i>Digitalis</i> 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 <i>Digitalis purpurea</i> and <i>Digitalis lanata</i> | 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 <i>Apocynaceae</i> 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 |
