

Seat No.: _____

Enrolment No. _____

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

Subject Code: 250006

Date: 16-06-2014

Subject Name: Pharmacognosy - IV

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 Alkaloid. Give the classification of Alkaloids with suitable examples. **06**
(b) Explain the life cycle of ergot with well labelled diagram. **05**
(c) Write brief note on Tracer-technique. **05**
- Q.2** (a) Explain the chemical test used for identification of : **06**
1) Strychnine and brucine 2) caffeine
3) Indole alkaloids 4) cinchona alkaloids
(b) Give points of difference between following pair of Drugs (Any two) **05**
1) Rio Ipecac and Cartegena Ipecac 2) Strychnos nuxvomica and S. ignitiis 3) Datura metel and Datura innoxia.
(c) Describe properties and general Chemical tests for identification of Alkaloids. **05**
- Q.3** (a) Give pharmacognosy of Coffee and describe procedure for isolation of caffeine. **06**
(b) Write a note on Rauwolfia. **05**
(c) Write a brief note on Withania. **05**
- Q.4** (a) Discuss the Shikkimic acid pathway and derive its Product. **06**
(b) Describe cultivation, collection and uses of Belladonna. **05**
(c) Describe pharmacognosy of drug having anti-amoebic activity. **05**
- Q.5** (a) Draw labelled diagrammes showing morphological and microscopical characters of Vasaka and Nux-Vomica. **06**
(b) Give the Chemical Constituents with structure of Following Drugs: **05**
1) Lobelia 2) Opium 3) Physostigma 4) veratrum 5) Cocca
(c) Give the botanical source and chemical constituents of antihypertensive alkaloid. **05**
- Q.6** (a) Describe cultivation, collection, active constituents and uses of Datura. **06**
(b) Write a note on Imidazole Ring Containing Drug. **05**
(c) Explain stereo- isomerism with natural product examples. **05**
- Q.7** (a) Describe biological sources, family, cultivation, collection and preparation of Opium in India. **06**
(b) Discuss general methods used for extraction of alkaloids. **05**
(c) Give the importance of the study of biogenetic pathway for secondary metabolites. **05**
