

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.

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|-------------|--|-----------|
| 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 :
1) Strychnine and brucine 2) caffeine
3) Indole alkaloids 4) cinchona alkaloids | 06 |
| | (b) Give points of difference between following pair of Drugs (Any two)
1) Rio Ipecac and Cartegena Ipecac 2) Strychnos nuxvomica and S. ignitiis 3) Datura metel and Datura innoxia. | 05 |
| | (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 Shikkinic 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:
1) Lobelia 2) Opium 3) Physostigma 4) veratrum 5) Cocca | 05 |
| | (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 |
