

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM - SEMESTER- 5 EXAMINATION – SUMMER -2019**

**Subject Code: 250006****Date: 10-06-2019****Subject Name: Pharmacognosy - IV****Time: 02:30 PM TO 05:30 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 the biogenesis of Morphine. 06  
(b) Describe biosynthetic pathway for Hyoscyamine 05  
(c) write identification tests for alkaloids 05
- Q.2** (a) Describe the life cycle of Ergot 06  
(b) Give morphological and microscopical characters of Quinazoline alkaloid containing drug. 05  
(c) Describe the processing of opium for market 05
- Q.3** (a) Describe morphological and microscopical characters of Cinchona. 06  
(b) Give microscopical characters and chemical constituents of antihypertensive root drug 05  
(c) Write chemical constituents and uses of tropane alkaloid containing drug 05
- Q.4** (a) Differentiate the followings:  
i). *Rauwolfia serpentina* and *R. potatorum* ii) *Strychnos nuxvomica* & *Strychnos potatorum* 06  
(b) Describe the pharmacognosy of an anticancer herb. 05  
(c) Write a note on “chemistry of Ipecacuanha” 05
- Q.5** (a) Comment on followings:  
i. Meconic acid ii) Racemic mixture of dl- Hyoscyamine iii) Ergot is defatted before storage 06  
(b) Describe in detail pharmacognosy of Steroidal alkaloid containing drug. 05  
(c) Write in detailed note on drug used in Gout. 05
- Q. 6** (a) Compare the morphological characters of various varieties of Datura leaf. 06  
(b) Write Biological source, family, chemical composition and toxicity of Hyoscyamus 05  
(c) Explain the concept of stereochemistry with suitable examples of natural products. 05
- Q. 7** (a) Write a brief note on a technique used to study Biosynthetic pathways. 06  
(b) Write a note on alkaloidal amine containing drug 05  
(c) Write a note on Lobelia. 05