

Seat No.: _____

Enrolment No. _____

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

Subject Code: 250004**Date: 03-06-2019****Subject Name: Pharmaceutical Chemistry - VI (Medicinal)****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) What are proton pumps inhibitors? Explain its mechanism of action. Sketch the important steps involved in synthesis of Omeprazole. **06**
(b) Write a note on antitussive agents. **05**
(c) How does protein binding affect biological activity? **05**
- Q.2** (a) Give structure, IUPAC name and synthesis of following compounds. **06**
1. Cetrizine 2. Chlorpheniramine
(b) Give reactions of Pyrrole. **05**
(c) Write about effect of hydrogen bonding and stereoisomerism on biological activity. **05**
- Q.3** (a) Give preparations of Furan. **06**
(b) What is peptic ulcer? Give brief note on H₂-antagonists. **05**
(c) Write in detail about the chemistry of prostaglandins. **05**
- Q.4** (a) Explain following terms with examples 1. Prokinetics 2. Laxatives 3. Irritable bowel syndrome. **06**
(b) Define antihistaminic agents and write SAR of H₁ receptor blockers. **05**
(c) Write down various reactions of Thiazole and Imidazole. **05**
- Q.5** (a) Write structure and IUPAC name of Diphenhydramine, Doxylamine and Chlorcyclizine. **06**
(b) Discuss reactivity of pyridine towards electrophiles and nucleophiles. **05**
(c) Explain the physicochemical parameters affecting drug absorption. **05**
- Q. 6** (a) Classify antiasthmatic agents and discuss about bronchodilators. **06**
(b) Give preparation of Quinoline. **05**
(c) Write a note on mucolytic agents. **05**
- Q.7** (a) Write structure and IUPAC name of Salbutamol, Bromhexine and Nikethamide. **06**
(b) Write a note on antidiarrheals. **05**
(c) Write a note on radiological contrast media. Give synthesis of Diatriazoic acid. **05**
