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. 1. Cetrizine 2. Chlorpheniramine	**06**
	(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 Diphenhyramine, 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**

****