Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – V • EXAMINATION – WINTER • 2016

Subject Code: 2250004 **Date: 30-11-2016**

Subject Name: Pharmaceutical Chemistry-VII (Medicinal Chemistry – I)

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)**	Discuss in detail how solubility and ionization affects biological activity of drug molecules.	**06**
	(b)	Define drug therapy. Write a note on history of medicinal chemistry.	**05**
	(c)	Give a brief account on Bioisosterism.	**05**
Q.2	**(a)**	Enlist various histamine receptors. Discuss neurochemistry of histamine.	**06**
	(b)	What are antihistamines? Give SAR of ethylenediamines as antihistamines.	**05**
	(c)	Give the synthesis of cetrizine and diphenhydramine.	**05**
Q.3	**(a)**	Discuss in detail about proton pump inhibitors along with its mechanism of action.	**06**
	(b)	What are antisecretary agents? Discuss SAR of H_2 receptor antagonist.	**05**
	(c)	Outline the synthesis of ranitidine and omeprazole.	**05**
Q.4	**(a)**	Explain the following term with examples: (1) Antiemetics (2) Mucolytics (3) Laxatives	**06**
	(b)	What is asthma? Write in detail about antiasthmatic agents.	**05**
	(c)	Write a note on expectorants and antitussive agents.	**05**
Q.5	**(a)**	Classify sympathomimetic agents. Discuss SAR of adrenergic agonist.	**06**
	(b)	What are eicosanoids? Explain the chemistry of prostaglandins.	**05**
	(c)	Give the synthesis of albuterol and propanolol.	**05**
Q. 6	**(a)**	Enlist various cholinergic receptors. Discuss SAR of acetyl choline.	**06**
	(b)	Write in detail about neurochemistry of catecholamines.	**05**
	(c)	Eicosanoids approved for human clinical use.	**05**
Q.7	**(a)**	Write in brief about eicosanoid biosynthesis.	**06**
	(b)	Explain neuromuscular blocking agent in detail.	**05**
	(c)	What are diagnostic agents? Write a note on radiopharmaceuticals.	**05**

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