Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BPHARM - SEMESTER– V • EXAMINATION – WINTER 2012

Subject code: 250004 **Date: 25-01-2013**

Subject Name: Pharmaceutical Chemistry – VI (Medicinal)

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)	Enumerate and define physicochemical properties of drug molecules. Explain solubility and partition co-efficient in detail.	**06**
	(b)	Discuss stereochemical features of drug molecules influencing biological activity.	**05**
	(c)	Define Bioisosterism and classify with examples.	**05**
Q.2	(a)	Justify following sentences. 1. Pyridine has higher basicity than pyrrole. 2. Pyrrole is more aromatic than furan. 3. In indole, electrophilic attack takes place at 3-position rather than 2-position.	**06**
	(b)	Explain preparation and reactions of Quinolines.	**05**
	(c)	Explain preparation and reactions of imidazole.	**05**
Q.3	(a)	What is asthma? Classify antiasthmatic drugs with examples.	**06**
	(b)	Write a note on antitussive agents.	**05**
	(c)	Define expectorants, mucolytics and decongestants. Explain expectorants in detail.	**05**
Q.4	(a)	Classify and discuss antacids in detail.	**06**
	(b)	What are antiemetics and laxatives? Discuss antiemetics in detail.	**05**
	(c)	Give synthesis foe Ranitidine and Omeprazole.	**05**
Q.5	(a)	Discuss chemistry and biosynthesis of histamine.	**06**
	(b)	Classify antihistamines with examples.	**05**
	(c)	Discuss SAR of first generation H1 antagonists.	**05**
Q. 6	(a)	Write synthesis for Diphenhydramine, Trimeprazine and Chlorpheniramine.	**06**
	(b)	Discuss Cyclooxygenase pathway.	**05**
	(c)	Explain eicosanoids approved for human clinical use with structures.	**05**
Q. 7	(a)	Classify antiulcer agents with examples and discuss their mode of action.	**06**
	(b)	Give preparation of indole and isoquinoline.	**05**
	(c)	Write a note on Diagnostic agents.	**05**

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