Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Pharmacy Sem-V-Examination-Nov/Dec-2011

Subject code: 250004 **Date: 26/11/2011**

Subject Name: Pharmaceutical Chemistry VI (Medicinal) **Time: 2.30 pm -5.30 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 relationship between biological activity of drugs and each of the following Physiochemical activities 1. Complexation 2. Partition Coefficient 3. Hydrogen bonding	**06**
	(b)	Define Bioisosterism. How they are useful in designing new drug.	**05**
	(c)	Write a note on development of Medicinal Chemistry	**05**
Q.2	(a)	Explain the following synthesis with reaction mechanism 1. Skraup Quinoline synthesis 2. Fischer's Indole synthesis	**06**
	(b)	Comment on the following 1. Pyridine is more basic than Pyrrole 2. Pyridine is less basic than aliphatic amines	**05**
	(c)	Outline Chemistry and Preparation of Furan	**05**
Q.3	(a)	Write a note on 1. Respiratory stimulant 2. Antiasthamatic agents	**06**
	(b)	Give SAR and synthesis of Ranitidine	**05**
	(c)	Give any two structures from each of the following 1. Antiemetics 2. Antitussive agents	**05**
Q.4	(a)	Give preparation of following 1. Pyrimidine 2. Imidazole 3. Thiophene	**06**
	(b)	Write a note on Eicosanoids Approved for Human Clinical use.	**05**
	(c)	Write a note on 1. Antispasmodic agents 2. Antidiarrheal	**05**
Q.5	(a)	Outline synthesis of following 1. Promethazine 2. Diphenhydramine 3. Cyproheptadine	**06**
	(b)	What are Eicosanoids? Discuss nomenclature and its SAR.	**05**
	(c)	Write a note on Radiopharmaceuticals	**05**
Q. 6	(a)	Classify Antihistaminic agents and give its importance in combating various types of allergic conditions? Give suitable examples to support answer?	**06**
	(b)	Write a note on 1. Laxative 2. Enzymes	**05**
	(c)	Note on proton pump inbhitors and synthesis of omeprazole	**05**
Q.7	(a)	Write a note Prokinetics & Decongestants	**06**
	(b)	SAR amongst H1-receptor blockers	**05**
	(c)	Discuss electrophilic substitution reaction in Pyrrole	**05**

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