Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. Semester – IIND Examination –June/July- 2011

Subject code: 920101

Subject Name: Advance Organic Chemistry-II

Date:01/07/2011 **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)**	Define relative and absolute configuration. Discuss in detail about various methods for resolving Racemic mixture.	**06**
	(b)	What are different methods used to obtain single isomer as a major product in reaction.	**05**
	(c)	Stereochemistry of Spirans and Biphenyls.	**05**
Q.2		Write Short Notes on (Give Mechanism, application and limitations)	
	(a)	Vilsmeir Haack Reaction	**04**
	(b)	Sonogashira Reaction	**04**
	(c)	Curtius Rearrangement	**04**
	(d)	Reformatsky Reaction	**04**
Q.3	**(a)**	Explain in detail need of Retrosynthesis along with its guidelines	**04**
	(b)	Give synthon approach for I) Captopril II) Losartan III) Diclofenac	**12**
Q.4	**(a)**	Define and explain concept of Green chemistry along with its Principles	**06**
	(b)	Write a note on solvent free reaction with examples	**05**
	(c)	How to design safer chemicals, Give benefits and industrial application of Green Chemistry	**05**
Q.5	**(a)**	Outline the asymmetric synthesis of i) Thalidomide ii) Ampicillin	**08**
	(b)	Write in detail role of stereochemistry in Pharmacokinetics and Pharmacodynamics	**08**
Q. 6	**(a)**	Describe the principle and applications of Microwave synthesis. Distinguish between microwave and conventional methods of synthesis with examples	**06**
	(b)	Write in detail about bottom up and top down approach in Nanochemistry with examples.	**05**
	(c)	Write note on Sharpless oxidation.	**05**
Q.7	**(a)**	What are Enantiomers and Diastereomers explain difference and Stereo chemical relationship with examples.	**06**
	(b)	Classify constitutional isomers with examples	**04**
	(c)	Write a note on Racemic switches	**06**

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