Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharmacy Sem-II Examination July 2010

Subject code: 920101

Subject Name: Advanced Organic Chemistry-II

Date: 05 /07 /2010 **Time: 11.00 am – 02.00 pm**

Instructions: **Total Marks: 80**

1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	(a)	What is mean by Green Chemistry ? Why it is need of present time ? Discuss in detail about the different approaches to achieve it.	**12**
	(b)	Write a note on Racemic switches.	**04**
Q.2	(a)	Chemist always targets to obtain pure product in good yield in less time. What are the different methods to achieve these ? Discuss in brief about each method.	**12**
	(b)	Discuss in detail about the method of converting ketone to ester.	**04**
Q.3	(a)	How will you convert the following ? Discuss in detail about the mechanism of reaction involved in it.	
	(b)	i) Aniline to *p*-(N,N-dimethylamino)benzaldehyde	**06**
	(c)	ii) Acetonitrile to ethylacetate	**05**
		iii) Benzoic acid to benzylamine	**05**
Q.4		Write a short note on following (Give mechanism, applications and limitations)	**16**
	(a)	Swern oxidation reaction	
	(b)	Benzilic acid rearrangement	
	(c)	Suzuki coupling reaction	
	(d)	Dimroth rearrangement	
Q.5	(a)	What is mean by asymmetric plane ? How does it generates optical isomerism ? Enlist organic compounds, which generates plane asymmetry. Discuss in detail about any two.	**08**
	(b)	Define geometrical isomerism. What are the rules for defining its configuration ? How geometrical isomers are resolved ?	**05**
	(c)	Draw different conformational isomers of n-bromopropane. Which one is more stable? Why?	**03**
Q. 6	(a)	Give detail account on importance of stereochemistry in pharmacokinetics and pharmacodynamics	**08**
	(b)	Give stereoselective synthetic route for Ethambutol and Omeprazole	**08**
Q.7	(a)	Define: Reterosynthesis, Synthon, Functional Group Interconversion	**03**
	(b)	What are the general rule for disconnection ? Give synthon approach for i. Pyrimethamine ii) Diclofenac, iii) Ciprofloxacin	**13**

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