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Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – IV • EXAMINATION – WINTER 2013

Subj	ect (Code: 240003 Date: 30-11-2013	
•		Name: Pharmaceutical Chemistry - IV	
_		.30 pm - 05.30 pm Total Marks: 80	
Instru			
	2.	Attempt any five questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Define and Classify amines? Give any three general methods of preparation and three reactions of amines.	06
	(b)	How cannizaro reaction differs from aldol condensation? Write a mechanism for aldol condensation.	05
	(c)	Give mechanism of action for Hofmann's Degradation of amides.	05
Q.2	(a)	What is resolution? Explain the methods for recemic modification into enantiomers.	06
	(b) (c)	Write a note on Biphenyls and Allenes with suitable examples. Write various reactions involved in oxidation and reduction of aldehydes and ketones.	05 05
Q.3	(a) (b)	What is polynuclear aromatic compound? Discuss the reactions of naphthalene. What are phenols? How do they differ from alcohols? Give general methods of preparation of phenol.	06 05
	(c)	Enlist the various acid derivatives. Give one general method for preparation of each of them with one example.	05
Q.4	(a)	Discuss the preparation and reactions of Diazonium salt. Write not on stereoselective and stereospecific reactions.	06 05
	(b) (c)	What are arenes? Write a note on Friedel craft alkylation. Discuss the limitation of it.	05
Q.5	(a)	Write a note on Green Chemistry. Mention the advantages of microwave heating over convectional heating.	06
	(b)	Give mechanism for Riemer Tiemann reaction.	05
	(c)	What is nano chemistry? Discuss four nano particles used in Pharmacy.	05
Q. 6	(a)	Explain the following statements. 1. Chloroacetic acid is stronger acid than acetic acid. 2. Halogens are ortho-para director but ring deactivator. 3. Staggered conformation is more stable than eclipsed.	06
	(b)	Differentiate between the following with suitable examples 1. Enantiomers and Diastereomers 2. Electrophile and Nucleophile	05
	(c)		05

- Q.7 (a) Explain Diels-Alder reaction with reference to conservation of orbital symmetry rules.
 - (b) What do you understand by reactive methylene group? Write a detail on synthesis **05** of aceto acetic ester.
 - (c) Of the name of following

Give the name of following.

$$2. \begin{array}{c|c} H_2 & H_2 \\ \hline H_3C & C & C \\ \hline H_2 & H_2 \\ \end{array}$$

06