Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. - SEMESTER - III • EXAMINATION - SUMMER 2013

Subject Code: 230003 Date: 12-06-2013			
Γime		ne: Pharmaceutical Chemistry - III) am - 01.30 pm Total Marks: 80	
	 Att Ma 	tempt any five questions. The suitable assumptions wherever necessary. The suitable assumptions wherever necessary. The suitable assumptions wherever necessary.	
Q.1	(a)	What are different methods used to determine molecular weight of organic	06
	(b)	compound? Discuss any two methods in detail. Discuss in detail about method used for quantitative determination of Carbon and Hydrogen.	05
	(c)	Write a note on Molecular Orbital Theory. Differentiate bonding and antibonding orbitals	05
Q.2	(a)	Resonance and Hyperconjugation influence the stability of organic molecule. How? Discuss with suitable example.	06
	(b)	Which are the different properties of molecule influence by polarity? Discuss with suitable example.	05
	(c)	Comment on following i. All Lowrie-Bronsted acids and bases can be Lewis acids and bases but all Lewis acids and bases cannot be Lowrie-Bronsted acids and bases. ii. Alkynes are more acidic than alkenes.	05
Q.3	(a)	How Carbanion and Carbon free radical are generated? Discuss about their	06
C	(b)	stability and reactions. Chlorofluorcarbons (CFC) are dangerous for the environment. How?	05
		Discuss in detail.	
	(c)	Write a note on halogenation of methane. What are the inhibitors of this reaction?	05
Q.4	(a)	Define conformation. Draw different conformation of 1,2-dibromoethane. Discuss about stability of each conformation.	06
	(b)	Give chemical structure and IUPAC name of following	06
	(c)	Neopentane, Isopropanol, Allylbromide, Vinylchloride Write a note on Kjeldahl's method of Nitrogen estimation.	04
Q.5	(a)	What are different types of nucleophilic substitution reactions? Write in	06
	(b)	detail about each. Discuss in detail about Grignard reaction for the synthesis of alkane and alcohols.	05

	(c)	Give following conversions with suitable example 1. Alkyl halide to alkene 2. Alkene to diol 3. Alkyne to syn alkene	05
Q. 6	(a) (b)	Discuss about different types of elimination reaction with suitable example. Define Geometrical isomers. What are different methods used to define configuration of geometrical isomers.	06 05
	(c)	Discuss in detail about different type of dienes with their stability.	05
Q.7	(a)	What is antiMarkovnikov addition? Discuss in detail about the method for	06
	(b)	synthesis of alcohol involving antiMarkovnikov addition. Write a note on Sigmatropic reaction.	05
	(c)	What are ethers? What is its importance in organic chemistry. Give detail account on Wiliamsons synthesis **********************************	05