Seat No Elifolitett No.	Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – III • EXAMINATION – SUMMER • 2015

	Subje	ect Code: 230003 Date: 17-06-2015	
	Subje	ect Name: Pharmaceutical Chemistry III	
	_	: 02:30 pm - 05:30 pm Total Marks: 80	
	Instru		
		1. Attempt any five questions.	
		2. Make suitable assumptions wherever necessary.	
		3. Figures to the right indicate full marks.	
<u> </u>			
Q.1	(a)		06
		absorbed in 110 ml of semi normal H ₂ SO ₄ . The residual acid required 150 ml of	
		0.25M NaOH solution. Determine the percentage of Nitrogen in the compound. (Atomic weight $-N=14$).	
	(b)		05
	(c)	Discuss the different types of chemical bolids. Discuss the orbital picture of methane and ethane.	05
	(0)	Discuss the orbital picture of methane and ethane.	US
Q.2	(a)	An organic substance on analysis was found to contain 20.06% of C, 1.6% H and	06
C	()	166.5% Cl. Calculate the empirical formula. Determine molecular formula if the	
		molecular weight is 239. (Atomic weights – C=12, H=1, Cl=35.5)	
	(b)	Discuss different types of non bonding intermolecular interactions	05
	(c)	Write a note on electronegativity and polarity.	05
Q.3	• •	Discuss with examples 'Carbocation' and 'Carbanion'.	06
	(b)	Write a note on Hyperconjugation and its effect on chemical properties with	05
	(a)	relevant examples.	05
	(c)	Write a note on delocalized electrons and resonance with appropriate examples.	05
Q.4	(a)	Discuss mechanism of free radical halogination of alkanes with examples.	06
~··	(b)	Write a short note on reaction intermediates- carbenes and nitronium ions.	05
	(c)	Write a note on Williamson synthesis of ether	05
Q.5		Discuss the E2 mechanism and evidence in favour of the mechanism.	06
	(b)	Give the general methods of preparations of alcohols.	05
	(c)	Write a short note on pericyclic reactions.	05
7	(a)	Disgues CN1 and CN2 reactions reactions with avamples	06
Q. 6	(a) (b)	Discuss SN1 and SN2 reactions reactions with examples. Give the structural formulae of the following- 3, 6-dimethyloctene, Vinyl	05
	(0)	chloride, acetylene, any one simple allene, any one tertiary alcohol.	US
	(c)	Write a short note on Grignards reaction.	05
	(0)	The a short note on original as reaction.	•••
Q. 7	(a)	Write a note on ethers and epoxides	06
	(b)	Write a note on 'Peroxide effect' in relation to addition of alkyl halides to alkenes	05
	(c)	Write a short note on neighbouring group effects	05
