Seat 1	No.: _	Enrolment No	
		GUJARAT TECHNOLOGICAL UNIVERSITY	
		B. Pharm – SEMESTER – III • EXAMINATION – WINTER • 2015	
Sub	ject	Code: 2230004 Date: 06-01-2016	
Sub	ject :	Name: Pharmaceutical Chemistry – IV (Organic Chemistry-I)	
Tim	e: 10	0:30 am - 01:30 pm Total Marks: 80	
Instr	uctio	ons:	
		Attempt any five questions.	
		Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	Write detail notes on Molecular Orbital theory	06
	(b)	•	05
	(c)	Define and explain following:	05
		i) Inductive effect	
		ii) Electrophile	
		iii) Alkynes	
		iv) Carbanion	
		v) Saytzeff's rule	
Q.2	(a)	Write short notes on Hyperconjugation reaction in detail.	06
	<b>(b)</b>		05
	(c)	Discuss bonding and antibonding orbital in detail.	05
Q.3	(a)	Write short notes on free radical chain reaction in alkane.	06
	<b>(b)</b>		05
	<b>(c)</b>	Write short notes on Markonikov's rule in detail.	05
Q.4	(a)	Write short notes on Diels Alder reaction in detail.	06
	<b>(b)</b>	· · ·	05
	<b>(c)</b>	Write short notes on $S_N2$ reaction in detail.	05
Q.5	(a)	Write short notes on Haworth synthesis of naphthalene in details.	06
	<b>(b)</b>	•	05
	(c)	How Grignard reagent prepared? Write synthetic utility of Grignard reagent.	05
Q. 6	(a)	Write detail short notes on Huckel Rule for aromaticity.	06
	<b>(b)</b>	Write detail short notes on Friedel-crafts alkylation reaction in detail.	05
	<b>(c)</b>	Give detail notes on Electrophilic aromatic substitution reaction of Benzene	05
		with reference to nitration reaction.	
<b>Q.7</b>	(a)	Write detail notes on Carbocation.	06
	<b>(b)</b>		05
	(c)	Give detailed notes on Aldol condensation reaction with reaction mechanism	05

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