

C.U.SHAH UNIVERSITY

Summer Examination-2017

Subject Name: Organic Chemistry-I

Subject Code: 5SC01OCH1

Branch: M.Sc.(Chemistry)

Semester: 1

Date: 22/03/2017

Time: 10:30 To 01:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator and any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
-

SECTION – I

- | | | |
|------------|---|-------------|
| Q-1 | Attempt the Following questions | (07) |
| | a. Write the full form of LUMO & HOMO | 02 |
| | b. Define homolytic and heterolytic bond fission | 02 |
| | c. Define Electrophile and Nucleophile reactions | 02 |
| | d. Draw the arrow of stereo specific reaction | 01 |
| Q-2 | Attempt all questions | (14) |
| A | Write the Horner-Wordwoth-Emmons reaction | 05 |
| B | Write the applications of Prins reaction | 05 |
| C | Discuss the Mukaiyama Electrocyclic C-C bond formation reaction | 04 |
| OR | | |
| Q-2 | Attempt all questions | (14) |
| A | Write Sonogashira coupling reaction with proper mechanism | 05 |
| B | Discuss the applications of Mitsunobu reaction | 05 |
| C | Write a note on | 04 |
| | 1. Wolff Kishner reaction | |
| | 2. Glaser coupling reaction | |
| Q-3 | Attempt all questions | (14) |
| A | Discuss the effect of structure on reactivity | 07 |
| B | Write a note on | 07 |
| | 1. Lithium diisopropylamide | |
| | 2. Wilkinson's catalyst | |
| OR | | |
| Q-3 | Attempt all questions | (14) |
| A | Discuss the different types of arrow notation | 07 |



B	Write a note on crown ethers	07
SECTION – II		
Q-4	Attempt the Following questions	(07)
	a. Write Elbs-persulphate reaction	02
	b. Write Grubb's reaction	02
	c. Write Leukart reaction	02
	d. Write the full forms of DCC and LDA	01
Q-5	Write the following rearrangement with reaction mechanism and nature of migration	(14)
	1. Baeyer-Villiger	14
	2. Demjanov	
	3. Neber	
OR		
Q-5	Write the following rearrangement with reaction mechanism and nature of migration	(14)
	1. Baker Venkatraman	14
	2. Newman-Kwart	
	3. Wagner-Meerwein	
Q-6	Attempt all questions	(14)
A	What are the organic coupling reactions? Discuss the Suzuki coupling reaction	07
B	Write notes on	07
	1. Lithium diisopropylamide	
	2. Ceric ammonium nitrate	
OR		
Q-6	Attempt all Questions	(14)
A	Write a note on chemical reactions of dicyclo hexylcabodiimide	07
B	Write a note on	07
	1. Dess Martin Periodinane,	
	2. Sodium Cyanoborohydride	

