Exam Seat No:\_\_\_\_\_

## C.U.SHAH UNIVERSITY Winter Examination-2018

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## Subject Name: Organic Chemistry - I

	Subject Code: 4SC03OCH1				Branch: B.Sc. (Chemistry)				
	Semeste	er: 3	Date : 29/11/2	2018	Time : 02:30 To 05	5:30 Marks	: 70		
	(2) (3)	Use of Prog Instructions Draw neat	s written on main	answer book a ures (if necessa	er electronic instrum re strictly to be obey ry) at right places.	-			
Q-1	<ul> <li>a)</li> <li>b)</li> <li>c)</li> <li>d)</li> <li>e)</li> <li>f)</li> <li>g)</li> <li>h)</li> <li>i)</li> </ul>	Due to wh chlorine? Define: Hy Give the e Which is r Write only Give the s Oxidation [A] Aceta [B] formic Complete R-CHO	ydrogen bond. xample of electro nore stable betwo v reaction to prep tructure of 2,2-D of ethyl alcohol dehyde	n pair of coval ophilic substitu een these two c are pyrrole fro imethyl cycloh using acidified [C] fa [D] a		ene. $C^+$ and [2] $R_2$ -H $C^+$ .	<ul> <li>(14)</li> <li>(1)</li> <li>(1)</li> <li>(1)</li> <li>(1)</li> <li>(1)</li> <li>(1)</li> <li>(1)</li> <li>(1)</li> <li>(1)</li> </ul>		
		нзс   нзс—сн	о    - с— он						
	j) k) l)	Write only By using v [A] Ester	[B] Carboxyli	tone and aldeh	n'. yde convert into… Amine [D] Alker	ne	(1) (1) (1)		
	m) n)		tructure of furan. tero atom is prese		other than four carb	ons?	(1) (1)		
Attempt any four questions from Q-2 to Q-8									

## Q-2Attempt all questions(14)a)Write brief note on reactive intermediate 'carbocations' and 'carbanions' with<br/>example and discuss its stability also.(10)b)Explain hemolytic cleavage and heterolytic cleavage with example.(4)



Q-3		Attempt all questions	(14)		
	a)	What is electrophilic substitution reaction explain helogenation and friedel- craft alkylation with any two example of each.	(7)		
	<b>b</b> )	Discuss addition reaction and rearrangement reaction with one example.	(4)		
	c)	Write note on reaction of ketone and aldehyde with primary amines.	(3)		
Q-4		Attempt all questions			
	a)	Explain Wittig reaction with mechanism.	(5)		
	b)	Explain Aldol condensation with mechanism.	(5)		
	c)	Write any two methods of preparation of aldehyde with example.	(4)		
Q-5		Attempt all questions			
	a)	Discuss any four derivatives of carboxylic acid.	(8)		
	b)	Write Hell valhard zelinsky reaction with mechanism.	(4)		
	c)	Give the structure of [1] phenyl acetic acid [2] 3-phenylpropenoic acid.	(2)		
Q-6		Attempt all questions	(14)		
	a)	Discuss nucleophilic addition reaction for aldehyde and ketone with general mechanism and write acid and base catalyzed addition reaction of it.	(7)		
	b)	Write synthesis of carboxylic acid by Grignard method with any two examples and mechanism.	(7)		
Q-7		Attempt all questions	(14)		
	a)	Write knorr synthesis of pyrrole with mechanism.	(5)		
	b)	Write Fiest - Benary synthesis of furan with mechanism.	(5)		
	c)	Write any two physical property of carboxylic acid and explain why butanoic acid has higher boiling point then 1-pentanol.	(4)		
Q-8		Attempt all questions	(14)		
	a)	Explain tautomerisum in five membered heterocyclic rings by using example of furan and pyrrole.	(7)		
	b)	Discuss briefly chemical reaction of thiophene.	(7)		

