Enronm	ent No:			
	C.U	.SHAH	UNIVERSITY	
	Su	ımmer Ex	amination-2019	
Subject	Name: Organic Cl	nemistry-IV		
Subject Code: 4SC06OCH1			Branch: B.Sc. (Chemistry)	
Semeste	r: 6 Date:	30/04/2019	Time: 10:30 To 01:30 Marks: 70)
(2)] (3)]	Instructions written Draw neat diagrams	on main answer be and figures (if ne	ny other electronic instrument is prohibited. book are strictly to be obeyed. ecessary) at right places.	
(4)	Assume suitable dat	ta if needed.		
1	Attempt the follo	owing questions:		(
a)	Attempt the followard the structure	owing questions: e of Wittig reagen	nt.	
a) b)	Attempt the followard of the Structure What are enantion	owing questions: e of Wittig reagen mers?	nt.	
a)	Attempt the followard the structure What are enantion Define: Plan polar	owing questions: e of Wittig reagen ners? rized light	nt.	
a) b) c)	Attempt the followard of the Structure What are enantion	owing questions: e of Wittig reagen mers? rized light resolution?		
a) b) c) d)	Attempt the followard of the Structure What are enantion Define: Plan polar What is meant by	owing questions: e of Wittig reagen mers? rized light resolution? mational isomers?		
a) b) c) d) e)	Attempt the following Draw the structure What are enantion Define: Plan polar What is meant by What are Conform How many electron Draw the orbital process.	owing questions: e of Wittig reagen mers? rized light resolution? mational isomers? ons are delocalize	d in benzyne?	
a) b) c) d) e) f)	Attempt the following Draw the structure What are enantion Define: Plan polar What is meant by What are Conform How many electron Draw the orbital process of the Give only synthesis.	owing questions: e of Wittig reagen mers? rized light resolution? mational isomers? ons are delocalize picture of benzynesis of chlorobenze	d in benzyne?	
a) b) c) d) e) f) a)	Attempt the following Draw the structure What are enantion Define: Plan polar What is meant by What are Conform How many electron Draw the orbital properties only synthesis What is specific results.	owing questions: e of Wittig reagen mers? rized light resolution? mational isomers? ons are delocalize picture of benzyne sis of chlorobenze otation?	d in benzyne? e. ene.	
a) b) c) d) e) f) j)	Attempt the following Draw the structure What are enantion Define: Plan polar What is meant by What are Conform How many electron Draw the orbital process of the Give only synthesis what is specific reduction.	owing questions: e of Wittig reagen mers? rized light resolution? mational isomers? ons are delocalize octure of benzyne sis of chlorobenze otation? e of ethane as per	d in benzyne? c. ene. Newmann projection method.	
a) b) c) d) e) f) j) k)	Attempt the following Draw the structure What are enantion Define: Plan polar What is meant by What are Conform How many electron Draw the orbital properties only synthesis What is specific reduced Draw the structure Draw the most states.	owing questions: e of Wittig reagen mers? rized light resolution? mational isomers? ons are delocalize oicture of benzyne sis of chlorobenze otation? e of ethane as per	d in benzyne? e. ene. Newmann projection method. n-butane.	
a) b) c) d) e) f) b) j)	Attempt the following Draw the structure What are enantion Define: Plan polar What is meant by What are Conform How many electron Draw the orbital properties only synthesis What is specific reduced Draw the structure Draw the most states.	owing questions: e of Wittig reagen mers? rized light resolution? mational isomers? ons are delocalize oicture of benzyne sis of chlorobenze otation? e of ethane as per	d in benzyne? c. ene. Newmann projection method.	
a) b) c) d) e) f) j) k)	Attempt the following Draw the structure What are enantion Define: Plan polar What is meant by What are Conformed How many electron Draw the orbital properties only synthesis What is specific reduced Draw the structure Draw the most state Why para isomer	owing questions: e of Wittig reagen mers? rized light resolution? mational isomers? ons are delocalize oicture of benzyne sis of chlorobenze otation? e of ethane as per able conformer of r of dihalobenzen	d in benzyne? e. ene. Newmann projection method. n-butane.	

	i)	What is specific rotation?	(1)
	j)	Draw the structure of ethane as per Newmann projection method.	(1)
	k)	Draw the most stable conformer of n-butane.	(1)
	l)	Why <i>para</i> isomer of dihalobenzene possess higher boiling point than <i>ortho</i> and <i>meta</i> isomer?	(1)
	m)	What are diastereomers?	(1)
	n)	What is racemic mixture?	(1)
Attempt	any f	Four questions from Q-2 to Q-8	
Attempt	any f	our questions from Q-2 to Q-8	
Attempt Q-2	any f	Four questions from Q-2 to Q-8 Attempt all questions	(14)
-	a)	Attempt all questions Write a note on Manganese dioxide with its applications.	(7)
-		Attempt all questions	` , ,
Q-2	a)	Attempt all questions Write a note on Manganese dioxide with its applications. Give the synthesis and application of N-Bromo succinimide.	(7) (7)
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Q-2	a)	Attempt all questions Write a note on Manganese dioxide with its applications. Give the synthesis and application of N-Bromo succinimide.	(7) (7)



	b)	Discuss elimination-addition mechanism for nucleophilic aromatic substitution <i>via</i> benzyne.	(7)
Q-4		Attempt all questions	(14)
	a)	Give the physical properties of aryl halides and discuss structure of aryl halide.	(7)
	b)	Explain conformational analysis of 1, 2 & 1, 3 and 1, 4 substituted cyclohaxane.	(7)
Q-5		Attempt all questions	(14)
	a)	Explain low reactivity of aryl halides and vinyl halides in detail.	(7)
	b)	Discuss conformational analysis of butane with energy diagram.	(7)
Q-6		Attempt all questions	(14)
	a)	Write a note on LiAlH ₄ reagent.	(7)
	b)	Explain sequence rules of R, S nomenclature with examples.	(7)
Q-7		Attempt all questions	(14)
	a)	Write a note on nucleophilic aromatic substitution: bimolecular displacement with mechanism.	(7)
	b)	Discuss conformational analysis of ethane and optical purity.	(7)
Q-8		Attempt all questions	(14)
	a)	Discuss the resolution of acid, base and alcoholic racemic mixture.	(7)
	b)	Write a short note on optical activity, optical isomer and metamerism.	(7)

