	Fnrollm	ent No:	Exam Seat No:						
	Em omn								
	C. U. SHAH UNIVERSITY								
		Summ	er Examination-2022						
	Subject Name: Organic Chemistry-IV								
	Subject (Code: 4SC06OCH1	Branch: B.Sc. (Chemistr	ry)					
	Semester	r: 6 Date: 05/05/2	2022 Time: 02:30 To 05:30	Marks: 70					
	Instruction	ons:							
		•	alator & any other electronic instrument is	prohibited.					
			n answer book are strictly to be obeyed.						
		Draw neat diagrams and fig Assume suitable data if nee	gures (if necessary) at right places.						
	(4) I	Assume suitable data il fiec	ueu.						
Q-1		Attempt the following qu	uestions.	(14)					
Q-1	a)	Draw the structure of M.		(1)					
	b)	Write one use of Wittig re		(1)					
	c)	What do you mean by iso	_	(1)					
	d)	Define: Optical isomers		(1)					
	e)	Define: Diastereomers		(1)					
	f)	What is called racemic ma	ixture?	(1)					
	g)	What do you mean by chi	iral molecule?	(1)					
	h)	Define: Aryl halides		(1)					
	i)	What do you mean by nuc	cleophiles?	(1)					
	j)	Draw the structure of buta	ane in Newmann projection.	(1)					
	k)	What do you mean by cor	nformation?	(1)					
	1)	Define: Metamers		(1)					
	m)	Draw the structure of ben	zyne.	(1)					
	n)	What do you mean by spe	ecific rotation?	(1)					
Atte	empt any f	four questions from Q-2 to	o Q-8						
Q-2	}	Attempt all questions		(14)					
	۵)	Write the synthesis of NP	OC and its machanism	(7)					

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Q-2		Attempt all questions	(14)
	a)	Write the synthesis of NBS and its mechanism.	(7)
	b)	Discuss LAH reagent with applications.	(7)
Q-3		Attempt all questions	(14)
	a)	Write the classification of isomerism with examples.	(7)
	b)	Explain Fischer and Newmann projection with proper examples.	(7)



Q-4	-4 Attempt all questions		(14)	
	a)	Explain conformational analysis of n-butane with energy diagram.	(7)	
	b)	Explain Enantiomers and assign R and S to the following molecules.	(7)	
Q-5		Attempt all questions	(14)	
	a)	Explain polarimeter with figure.	(6)	
	b)	Write the difference between enantiomers and diastereomers.	(5)	
	c)	Write a brief note on optical purity.	(3)	
Q-6		Attempt all questions	(14)	
	a)	Explain nucleophilic aromatic substitution with elimination addition mechanism	(7)	
	b)	Discuss Diazomethane with its applications.	(7)	
Q-7		Attempt all questions	(14)	
	a)	Give the physical properties of aryl halides. Explain why aryl halides are low reactive?	(7)	
	b)	Explain conformational analysis of 1,2, and 1,3 substituted cyclohexane.	(7)	
Q-8		Attempt all questions	(14)	
	a)	Write a note on nucleophilic aromatic substitution: bimolecular displacement with mechanism.	(7)	
	b)	Write any four applications of selenium dioxide.	(4)	
	c)	How do you get plane polarized light?	(3)	
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