Enrollment No:	Exam Seat No:

C. U. SHAH UNIVERSITY

Winter Examination-2022

Subject Name: Organic Chemistry - IV

Subject Code: 4SC06OCH1 Branch: B.Sc. (Chemistry)

Semester: 6 Date: 21/09/2022 Time: 11:00 To 02:00 Marks: 70

Instructions:

- (1) Use of Programmable calculator & 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.

Q-1		Attempt the following questions:	(14)
	a)	Define: Aromatic compound	(1)
	b)	Write one use of Wittig reagent.	(1)
	c)	What do you mean by isomerism?	(1)
	d)	Define: Reaction mechanism	(1)
	e)	Draw the structure of MPV reduction reagent.	(1)
	f)	What is conformation?	(1)
	g)	What do you mean by chiral molecule?	(1)
	h)	Define: Epimer	(1)
	i)	Write the structure of Aluminium isopropoxide.	(1)
	j)	Draw the structure of butane in Newmann projection.	(1)
	k)	Define specific rotation	(1)
	1)	What is Nucleophile? Give its example.	(1)
	m)	Draw the structure of benzyne.	(1)
	n)	What is known racemic mixture?	(1)
Attempt	t any f	Cour questions from Q-2 to Q-8	
Q-2		Attempt all questions	(14)
	a)	Write the classification of isomerism with examples.	(7)
	b)	Discuss Lithium Aluminum hydride reagent with applications.	(7)
Q-3		Attempt all questions	(14)
-	a)	Write note on Manganese dioxide with example.	(7)
	b)	Explain conformational analysis of n-butane with energy diagram.	(7)
Q-4		Attempt all questions	(14)
•	a)	Explain Enantiomers and assign R and S to the following molecules.	(7)



	b)	Explain Fischer and Newmann projection with proper examples.	(7)
Q-5		Attempt all questions	(14)
	a)	Write a brief note on polarimeter with figure.	(6)
	b)	Give the differences between enantiomers and diastereomers.	(5)
	c)	Explain how we get plane polarized light?	(3)
Q-6		Attempt all questions	(14)
	a)	Explain nucleophilic aromatic substitution with elimination addition mechanism.	(7)
	b)	Explain Diazomethane with its applications.	(7)
Q-7		Attempt all questions	(14)
	a)	Give the physical properties of aryl halides and explain why they are low reactive?	(7)
	b)	Explain conformational analysis of 1, 2 and 1, 3-disubstituted cyclohexane.	(7)
Q-8		Attempt all questions	(14)
	a)	Discuss nucleophilic aromatic substitution: bimolecular displacement with mechanism.	(7)
	b)	Write any four applications of NBS.	(4)
	c)	Discuss optical purity.	(3)
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