C.U.SHAH UNIVERSITY Summer Examination-2019

Subject Name: Organic Chemistry-II

	Subject Code: 4SC04OCH1		Branch: B.Sc. (Chemistry, Physics)		
	Semester: 4 Date: 18/04/2019		Time: 02:30 To 05:30	Marks: 70	
	 Instructions: (1) Use of Programmable calculator & any other electronic instrument is prohibite (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 quest	tions:		
	 a) b) c) d) e) f) g) h) 	Define: Reaction mechanism Draw the chemical structure of What is the use of Ibuprofen? What do you meant by rearra Give any one example of hen Write the reaction to detect hy Write the general molecular f Draw the structure of isopren	of Alizarin. ? .ngement? nlock alkaloid. ydroxyl group in alkaloids. formula of Diterpene.		

h)	Draw the structure of isoprene unit.	01
i)	Give any one example of alkaloid containing pyridine - pyrrolidine group.	01
j)	Write one application of fries rearrangement	01
k)	In which type of organic reaction allylic rearrangement is observed?	01
n	Write any two physical properties of terpenoids	01

l)	Write any two physical properties of terpenoids.		01
m)	What is the use of congo red?		01
n)	In alkaline medium alizarin gives	coloured solution.	01

Attempt any four questions from Q-2 to Q-8

Q-2	a) b)	Attempt all questions Discuss Arndt- Eistert reaction with mechanism and its applications. Write a brief note on Hofmann rearrangement with mechanism and its applications.	(14) 07 07
Q-3	a) b)	Attempt all questions Explain Curtius reaction with its mechanism and application. Explain Barbier-Wieland reaction with mechanism.	(14) 07 07
Q-4	a) b)	Attempt all questions Write a brief note on Indigo dye. What is terpenoids? Discuss classification of terpenoids.	(14) 07 07



(14)

Q-5		Attempt all questions	(14)
	a)	Write the synthesis and uses of methyl orange.	07
	b)	Give the evidence for the presence of -CHO, Isopropylidene, Acyclic structure,	07
		-C=C- group in Citral.	
Q-6		Attempt all questions	(14)
	a)	Give the synthesis and applications of Atenolol.	07
	b)	What is dye? Give the preparation of malachite green.	07
Q-7		Attempt all questions	(14)
-	a)	What are alkaloids? Explain its classification in detail.	07
	b)	Prove the constitution of coniine.	07
Q-8		Attempt all questions	(14)
•	a)	Prove that A) Nicotine must have a pyridine nucleus.	07
	,	B) Nicotine must contain a pyrrolidine nucleus.	
		C) In nicotine the side chain must contain an N-methyl group.	
	b)	Explain the synthesis of alizarin with applications.	07
			07

