Enrollment No: _____ Exam Seat No: _____

C. U. SHAH UNIVERSITY

Summer Examination-2022

Subject Name: Organic Chemistry-II

Subject Code: 4SC04OCH1 **Branch: B.Sc. (Chemistry)**

Semester: 4 **Date: 04/05/2022** **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)	What do you mean by reaction mechanism?	**01**
b)	Write only reaction of Barbier-Wieland reaction.	**01**
c)	Write any use of methyl orange.	**01**
d)	Draw the structure of malachite green.	**01**
e)	What do you mean by alkaloids?	**01**
f)	Draw the structure of isoprene unit	**01**
g)	What is called carbocation?	**01**
h)	Draw the structure of menthol	**01**
i)	What type of the product you will get at the end of Arndt-Eistert reaction?	**01**
j)	Write any one use of ibuprofen.	**01**
k)	Write only reaction of Curtius rearrangement	**01**
l)	What is isoprene rule for terpenoids?	**01**
m)	Write one application of Mannich reaction.	**02**

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

Q-2 **Attempt all questions** **(14)**

a)	Explain Michael addition reaction with its mechanism and applications	**07**
b)	Explain Fries rearrangement with its mechanism and applications	**07**

Q-3 **Attempt all questions** **(14)**

a)	Write the synthesis and uses of Congo red.	**07**
b)	Write the synthesis and uses of Indigo.	**07**

Q-4 **Attempt all questions** **(14)**

a)	Prove the constitution of conine.	**07**
b)	Determine the structure of nicotine.	**07**

Q-5		**Attempt all questions**	**(14)**
	a)	Introduce the term terpenoids and classify it.	**07**
	b)	Prove the constitution of citral.	**07**
Q-6		**Attempt all questions**	**(14)**
	a)	Write the synthesis citral.	**07**
	b)	Write the synthesis and uses of atenolol.	**07**
Q-7		**Attempt all questions**	**(14)**
	a)	Discuss the synthesis and uses of alizarine.	**07**
	b)	Discuss Hofmann rearrangement with mechanism.	**07**
Q-8		**Attempt all questions**	**(14)**
	a)	Discuss Beckmann rearrangement with mechanism.	**07**
	b)	Write the classification of alkaloids on the basis of their structure and source.	**07**