Enrollment No: _____ Exam Seat No: _____

C.U.SHAH UNIVERSITY

Summer Examination-2018

Subject Name: Organic Chemistry-II

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

Semester: 4 **Date: 26/04/2018** **Time: 10:30 To 01:30** **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) How many isoprene units are present in Diterpene? (1)
b) Give one example of Curtius reaction. (1)
c) Define: Alkaloids (1)
d) Define: Isoprene rule (1)
e) Draw the structure of atenolol. (1)
f) Opium contains _____% of morphine and _____% of Cinchona. (1)
g) Give the structure of geranic acid. (1)
h) Give the name of any two methods for the isolation of essential oil from plant. (1)
i) Give the structure of methyl orange. (1)
j) Draw the chemical structure of Nicotine. (1)
k) Give the name of method by which $-OCH_3$ group can be detected. (1)
l) Define: stas-otto process (1)
m) Potassium mercury iodide known as _____ reagent. (1)
n) Define the term 'Drugs'. (1)

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

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

a) Discuss Mannich reaction with mechanism and give its applications. **(7)**
b) Give the synthesis and its applications of Ibuprofen. **(7)**

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

a) Discuss Hoffmann rearrangement with mechanism and give its applications. **(7)**
b) Give the synthesis and uses of Malachite green. **(7)**

Q-4		**Attempt all questions**	**(14)**
	a)	Discuss Fries rearrangement with mechanism and give its applications.	**(7)**
	b)	Give the synthesis and uses of Alizarin.	**(7)**
Q-5		**Attempt all questions**	**(14)**
	a)	Explain the classification of alkaloids on the basis of sources and presence of heterocyclic ring with suitable examples.	**(7)**
	b)	Discuss Michael reaction with mechanism and application.	**(7)**
Q-6		**Attempt all questions**	**(14)**
	a)	Discuss on the constitution of Coniine.	**(7)**
	b)	Give the evidence for the presence of –CHO, Isopropylidene, Acyclic structure, -C=C- group in Citral.	**(7)**
Q-7		**Attempt all questions**	**(14)**
	a)	Give the synthesis of Citral.	**(7)**
	b)	Write a note on general procedure for determining structure of terpenoids.	**(7)**
Q-8		**Attempt all questions**	**(14)**
	a)	Explain two types of the classification of terpenoids.	**(7)**
	b)	Discuss Grignard reaction with mechanism and give its applications.	**(7)**