Enrollment No: _____ Exam Seat No:_____

C.U.SHAH UNIVERSITY

Summer Examination-2019

Subject Name : Organic Chemistry-I
Subject Code : 5SC01OCH1 Branch : M.Sc. (Chemistry)
Semester : 1 Date : 14/03/2019 Time : 02:30 To 05:30 Marks : 70

Instructions:

(1) Use of Programmable calculator and 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.

SECTION – I

Q-1 **Attempt the following questions** **(07)**

a. Define: Rearrangement. **01**
b. Explain heterolytic bond fission with appropriate example. **01**
c. Define: Coupling reaction **01**
d. Write chemical equation of Apple reaction. **01**
e. Write a full form of CAN. **01**
f. Write the chemical reaction of Barton reaction. **01**
g. Define: Nuclophiles **01**

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

a. Describe the following reactions with mechanism and application. **07**
(i) Reformatsky reaction **(ii)** Brich reduction
b. Write a note on Vilesmeier - Haack reaction. **07**

OR

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

a. Describe the following reactions with mechanism and application. **07**
(i) Nazarov cyclization **(ii)** Leuckart reaction
b. Write a brief note on Michael Addition reaction. **07**

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

a. Write a note on Wolff-Kishner reaction. **07**
b. Explain Bouveault-Blanc reduction reaction with mechanism and application. **07**

OR

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

a. Write a note on Knoevenagel condensation. **07**
b. Explain Noyari reaction with mechanism and application. **07**

SECTION – II

Q-4 **Attempt the following questions** **(07)**

a. Write the full form of DCC. **01**

b. Draw the crown ether structure of Cyclen. **01**

c. Write the preparation of Lithium diisopropylamide. **01**

d. Complete the following reaction. **01**

e. Draw the structure of DCU. **01**

f. Draw the structure of complex of H_3O^+ with 18-crown-6. **01**

g. Write the chemical reaction of Prins recation. **01**

Q-5 **Attempt all questions** **(14)**

a. Describe the note on Neber rearrangement. **07**

b. Write a note on Newman-Kwart rearrangement. **07**

OR

Q-5 **Attempt all questions** **(14)**

a. Describe the note on Wagner-Meerwein rearrangement. **07**

b. Explain briefly about Wilkinson's catalyst. **07**

Q-6 **Attempt all questions** **(14)**

a. Write a brief note on Suzuki coupling and Glaser coupling reactions. **07**

b. Write a note on Crown ether. **07**

OR

Q-6 **Attempt all questions** **(14)**

a. Write a brief note on Hay coupling and Stille coupling reactions. **07**

b. Write a note on Sodium Cyanoborohydride. **07**