

Enrollment No: _____ Exam Seat No: _____

C.U.SHAH UNIVERSITY

Winter Examination-2015

Subject Name : Organic Chemistry

Subject Code : 5SC01CHC2

Branch: M. Sc. (Chemistry)

Semester: I

Date: 02-12-2015

Time: 10.30 to 01.30 pm

Marks: 70

Instructions:

1. Attempt all questions of both sections in same answer book/ Supplementary
2. Make suitable assumption wherever necessary.
3. Figures to the right indicate full marks.
4. Draw figure / Diagram wherever necessary.

Section – I		Marks
Q-1	Do as Directed.(All Questions are compulsory)	(07)
a)	Define homolytic and heterolytic fission with reactions	(02)
b)	Write the Leuckart reaction	(02)
c)	Draw the structure of cyclen	(02)
d)	Define Nucleophil and electrophile	(01)
Q-2	Answer the following in detail.	(14)
a)	Write the different types of arrow notation in detail	(05)
b)	Complete the reaction with suitable mechanism	(05)
c)	Write the Vilsmeier hack reaction with mechanism	(04)
OR		
Q-2	Answer the following in detail.	(14)
a)	Write a note on Clemmensen reduction	(05)
b)	Complete the reaction with suitable mechanism	(05)
c)	Discuss the Bouveault-Blank reduction	(04)
Q-3	Answer the following in detail.	(14)
a)	Discuss the Noyari reaction with application and proper mechanism	(07)
b)	Complete the reaction with proper mechanism and application	(07)

OR

- Q-3 Answer the following in detail. (14)
a) Discuss the Suzuki reaction with application and proper mechanism (07)
b) Write a note on Stille coupling and Hantzsch synthesis (07)

Section – II

Marks

- Q-4 Do as Directed. (All Questions are compulsory) (07)
a) Discuss the hydroboration reaction (02)
b) Complete the reaction (02)

- c) Complete the reaction (02)

- d) Draw the structure of potassium thioester (01)

- Q-5 Answer the following in detail. (14)
a) Write the Michael addition reaction with proper mechanism and application (05)
b) Write a note on Stobbe reaction (05)
c) Discuss the Wagner-Meerwein rearrangement (04)

OR

- Q-5 Answer the following in detail. (14)
a) Write the Arndt-Eistert rearrangement with proper mechanism and application (05)
b) Write a note on DMP reagent (05)
c) Write a note on DCC (04)

- Q-6 Answer the following in detail. (14)
a) Discuss in details "Crown ethers" (07)
b) Write a note on (07)
1. Shapiro reaction 2. Neber rearrangement

OR

- Q-6 Answer the following in detail. (14)
a) Write a note on (07)
1. Olefin metathesis 2. Favorskii rearrangement
b) Complete the reaction with proper mechanism and application (07)

1.

2.

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