

Enrolment No:



Course: Advanced Organic Chemistry

End Semester Examination (December 2021)

Semester: I

Program: M.Sc. Chemistry

Time : 3 Hours

Course Code: CHEM 7018

Max. Marks: 100

Instructions: Read all the below mentioned instructions carefully and follow them strictly:

- 1) Write your enrolment number on the top left of the question paper
- 2) Do not write anything on the question paper except your enrolment number
- 3) Attempt all part of a question at one place only

Section - A

1. Each Question will carry 4 Marks
2. Answer should be short
3. You have to very careful to write the answer.

1.	Arrange the following in the order of increasing acid strength ClCH_2COOH , FCH_2COOH , BrCH_2COOH , ICH_2COOH	[4]	CO1
2.	Explain the basicity of primary amine, secondary amine and tertiary amine in water	[4]	CO1
3.	Discuss necessary conditions for any compound to be aromatic	[4]	CO2
4.	Why the carbon-carbon bond distance in benzene is intermediate between the bond distance in ethane and ethane?	[4]	CO1
5.	Classify the following species as electrophiles and nucleophiles with reasoning HO^- , BF_3 , NH_3 , AlCl_3 , H_2O , Br^+	[4]	CO1

SECTION-B

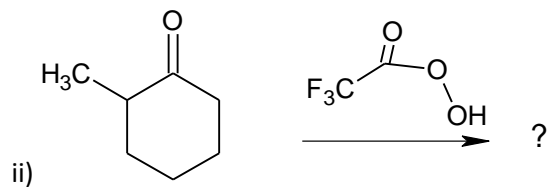
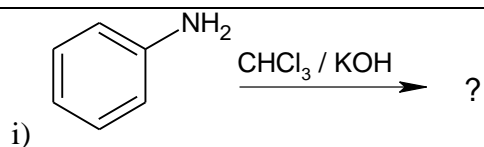
Instructions:

1. Each question will carry 10 marks
2. Write short/brief notes of 1-2 page answer.
3. Internal Choice is given in question 4

1.	Write the product with mechanism	[5+5]	CO3
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2.	<p>Complete the reaction with mechanism</p> <p>i) </p> <p>ii) </p>	[6+4]	CO3
3	<p>Discuss the mechanistic approach of the following reaction</p> <p></p>	[10]	CO2
4	<p>Elaborate the mechanism of following reaction</p> <p>i) </p> <p>ii) </p>	[5+5]	CO2

OR



SECTION - C

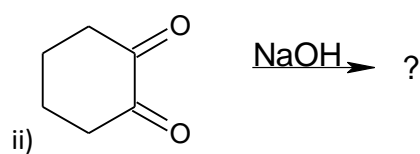
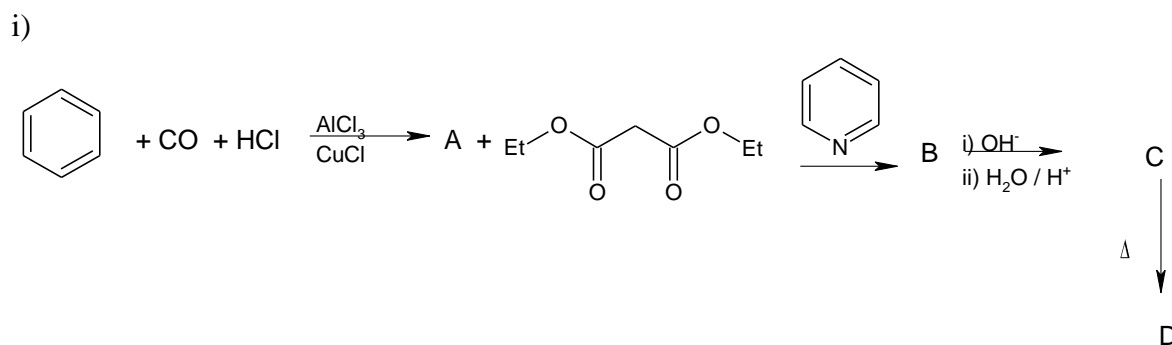
Instructions:

1. Each Question is of 20 marks

2. Internal choices is given in question 2

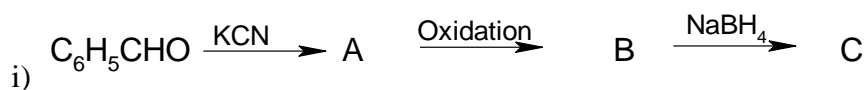
1. Elucidate the product with mechanism

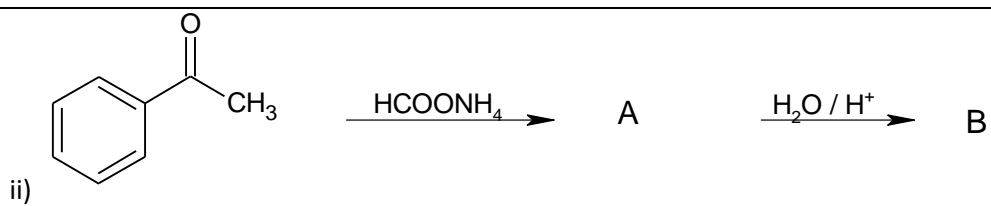
[12+8] CO3



2. Complete the reaction with mechanism

10+10 CO3





OR

