Registration No.: | | | | | | | | | | |

Total Number of Pages: 03

Course: M.Sc.I
Sub_Code: FCYC701

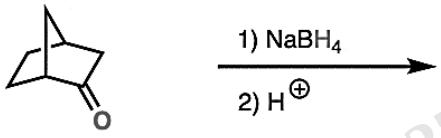
7th Semester Regular Examination: 2024-25
SUBJECT: Organic Chemistry-V
BRANCH(S): M.Sc.I(AC)
Time: 3 Hours
Max Marks: 70
Q.Code: R040

Answer Question No.1 (Part-I) which is compulsory, any five from rest (Part-II)
The figures in the right-hand margin indicate marks.

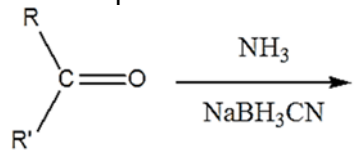
Part-I

Q1 **Answer the following questions:** **(2 x 10)**

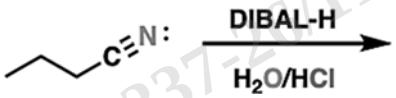
a) Write the product:



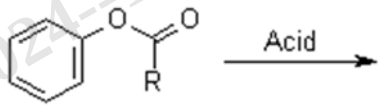
b) Write the product:



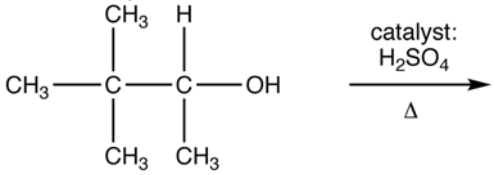
c) Write the product:



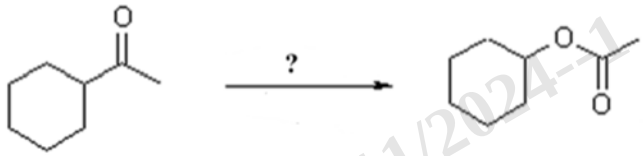
d) Write the product:



e) Write the product:



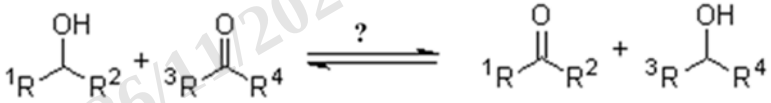
f) Write the reagent and name of the reaction:



g) How is Dickmann condensation different from Claisen condensation?

h) Fill the ? mark:

i) Name the reagent and name of the reaction:



j) Name the reagent and name of the reaction:

Part-II

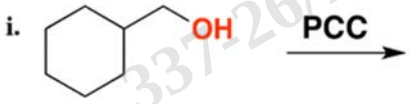
Long Answer Type Questions (Answer Any five)

Q2 **a)** What is meant by hydroboration oxidation reaction? Name some hydroboration oxidation reagents. Write the advantages of this reaction. **(5+5)**

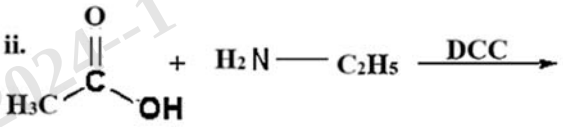
b) Give the detailed mechanism of the hydroboration oxidation reaction taking a suitable example

Q3 Write the product of the following reactions with mechanism: **(5+5)**

i.

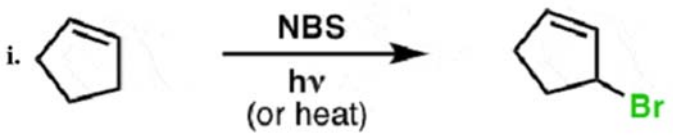


ii.

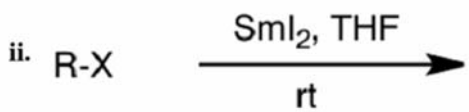


Q4 Write the product of the following reactions with mechanism: **(5+5)**

i.



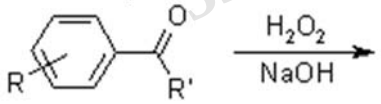
ii.

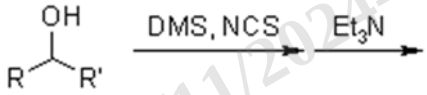


Q5 **a)** Write a note on Migratory aptitude in rearrangement reaction. **(5+5)**
b) Explain the memory effect in organic synthesis.

Q6 Explain the following rearrangements with mechanism: **(5+5)**
i. Pinacol-Pinacolone rearrangement
ii. Benzil-Benzilic acid

Q7 Write the product of the reaction with the mechanism: **(5+5)**





Q8 Describe the following reaction with mechanism: **(5+5)**
i. Negishi-cross coupling reaction
ii. Claisen rearrangement