

M. SC. (Organic Chemistry) Sem-III (Choice Based Credit & Grade System) : WINTER - 2018

SUBJECT : ADVANCED ORGANIC REACTION MECHANISM

Day : Friday
Date : 19/10/2018

W-2018-0991

Time : 03.00 PM TO 06.00 PM
Max. Marks : 60

N.B.:

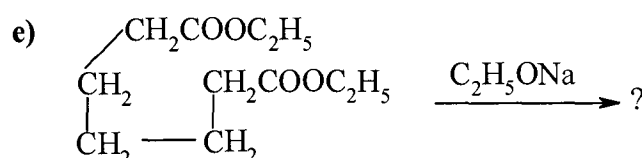
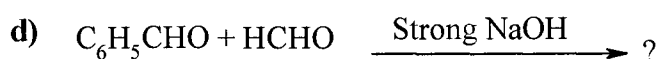
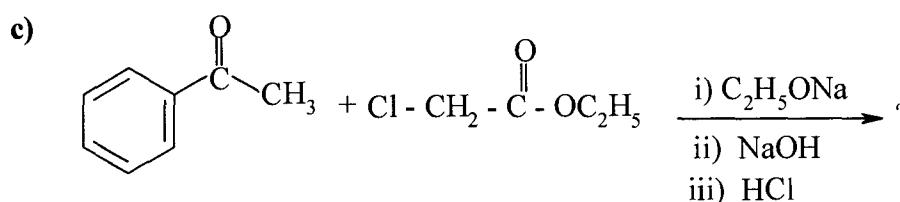
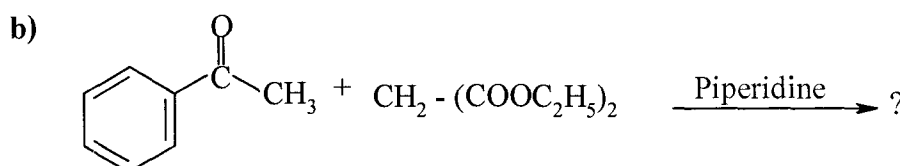
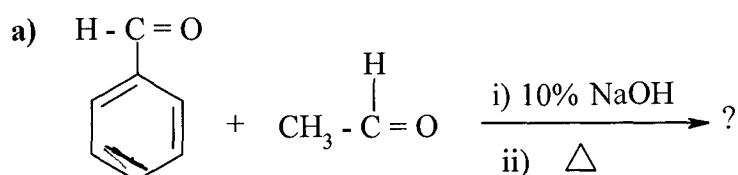
- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer books.

SECTION - I

Q.1 Attempt **ANY THREE** of the following: [15]

- a) What are Carbenes? Discuss the reactions of carbenes with alkenes.
- b) Discuss the mechanism and applications of Baylis – Hillmann reaction.
- c) What is Mannich reaction? Discuss its mechanism and applications.
- d) What are carbanions? Discuss concerted and carbanion mechanism for tautomerism.
- e) Write a note on : Benzoin Condensation.

Q.2 Predict the product/s with mechanism of **ANY THREE** of the following: [15]

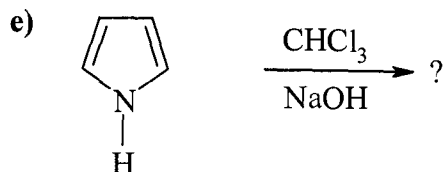
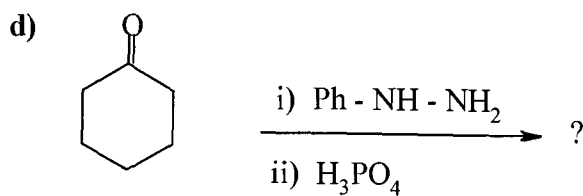
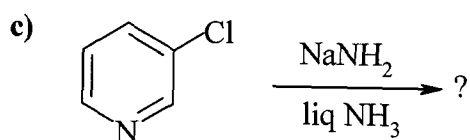
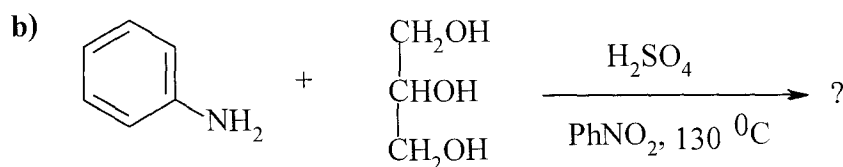
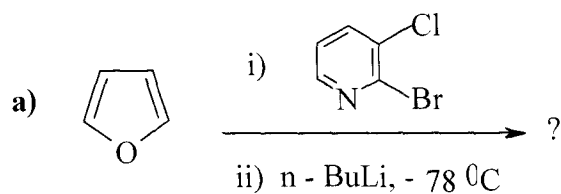


SECTION – II

Q.3 Attempt **ANY THREE** of the following: **[15]**

- a) How are Isoquinolines prepared from 2 – arylethaneamine by Bischler Napieralski method?
- b) How is Chloroquine prepared from Meta Chloraaniline?
- c) Why an electrophilic substitution reaction in indole takes place at C₃ and not at C₂ position? Explain with example.
- d) Give the synthesis of Amlodipine.
- e) Write a note on : Reactions of Benzofuran.

Q.4 Predict the product/s with mechanism of **ANY THREE** of the following: **[15]**



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