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Total No. of Pages : 01

Total No. of Questions : 08

M.Sc. (Chemistry) (2018 & Onwards) (Sem.-1)

REACTIVE INTERMEDIATES-I

Subject Code : CHL402-18

M.Code : 75114

Time : 2 Hrs.

Max. Marks : 35

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE question(s), each question carries 7 marks.

Q1 Write a short note on :

- a) Sandmeyer reaction b) Hunsdiecker reaction.

Q2 What are the reaction intermediates? Give an account for formation and stability of carbenes and nitrenes.

Q3 Illustrate, with examples, the terms kinetic and thermodynamic control of reactions.

Q4 Discuss in brief the effect of substrate, structure and leaving group upon aliphatic nucleophilic substitution reaction.

Q5 Nucleophilic aromatic substitution occurs by two mechanisms namely addition-elimination mechanism and elimination-addition mechanism. How is it ascertained as to which of the two mechanism is operating in a particular case?

Q6 Suggest a mechanism of Bechmann reaction. Explain the synthesis of caprolactum.

Q7 What factors are responsible for ortho-para ratio in aromatic electrophilic substitution reactions?

Q8 Discuss the mechanism and orientation in pyrolytic elimination.

Note:Any student found attempting answer sheet from any other person(s), using incriminating material or involved in any wrong activity reported by evaluator shall be treated under UMC provisions.

Student found sharing the question paper(s)/answer sheet on digital media or with any other person or any organization/institution shall also be treated under UMC.

Any student found making any change/addition/modification in contents of scanned copy of answer sheet and original answer sheet, shall be covered under UMC provisions.