ST. LAWRENCE HIGH SCHOOL

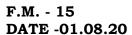
A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET-47(CLASS-12)

TOPIC- ALDEHYDE AND KETONE

SUBTOPIC-PREPARATION AND CHEMICAL REACTIONS

SUBJECT – CHEMISTRY DURATION – 30 mins



- 1.1 During the nucleophilic addition reaction of an aldehyde or Ketone the change in hybridization state of the carbonyl atom changes-
- a) sp² to sp³ b) sp³ to sp² c) sp² to sp d) sp to sp³
- 1.2 Wolff Kishner reduction of a ketone is carried out in the presence of which of the following?
- a) H₂ and Pt as catalyst b) Glycol with KOH c) Zn-Hg with HCld) LiAlH₄
- 1.3 The factor/factors that affect the rate of a chemical reaction of an aldehyde or a ketone is / are-
- a) Electronic effectb) steric effectd) both a and bd) none of these
- 1.4 The hydration of an aldehyde or a ketone is reversible due to-
- a) Slowest step b) Formation of geminal di ol c) Formation of vicinal di ol d) Tautomerism
- 1.5 Ammonia reacts with aldehyde or ketone to form-
- a) Imineb) Ureac) Amided) Amine
- 1.6Reaction of ethyl ethanote with limited supply of CH₃MgI followed by hydrolysis gives-
- a) Ethanol b) n-propyl alcohol c) Acetaldehyde d) Isopropyl alcohol
- 1.7 Both aldehyde and ketone can be identified by-
- a) Tollens reagent b) Sodium bisulphite addition c) Brady's reagent d) All of these
- 1.8 Aldehyde and ketone are reduced to form-
- a) Alcohol b) Ether c) Alkane d) alkyne
- 1.9 A strong base can abstract an alpha-hydrogen from -
- a) Amine b) Both c and dc) Ketoned) Ether

- 1.10 Reduction of aldehydes and ketones into hydrocarbons using Hydrazine, KOH and u der heating condition-
- a) Cope reduction b) Dow reductionc) Wolff-Kishner reduction d) Clemmensen reduction
- 1.11 Chloral forms stable geminal-di-ol, due to-
- a) Inter molecular H-bond formation b) Intra molecular H-bond formationc) Inductive effect
- d) Hyperconjugation
- 1.12Aldehydes are chemically more reactive than the ketones due to-
- a) Electrophilic character at the carbonyl carbon b) Steric factor c) both a and b d) none of these
- 1.13Semicarbazide on treatment with Aldehyde forms-
- a) Salicyldehydeb) Semicarbazenec) Semicarbazone d) Semicarbazyne
- 1.14aldehyde and ketone both undergo the type of chemical reaction/reactions-
- a) Condensation b) rearrangementc) additiond) all of these
- 1.15The geometry of the carbonyl group is-
- a) Trigonal planar b) Pyramidal c) Square planer d) Linear

PREPARED BY: MR. ARNAB PAUL CHOWDHURY