

ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET-45(CLASS-12)

TOPIC- ALDEHYDE AND KETONE



SUBTOPIC-PREPARATION AND CHEMICAL REACTIONS

SUBJECT – CHEMISTRY DURATION – 30 mins F.M. - 15 DATE -25.07.20

1.1 Which of the following has the most acidic hydrogen?

a) Hexane-2,4-dione b) Hexane-2,3-dione c) Hexane-2,5-dione d) Hexan-3-one

1.2 A new C-C bond formation is possible in-

a) Cannizzaro reaction b) Friedel crafts reaction c) Clemmensen reduction d) Reimer-Tiemann reaction

1.3 The formation of cyanohydrin from a ketone is an example of-

a) Electrophilic addition b) Nucleophilic addition d) Nucleophilic substitution d) Electrophilic substitution

1.4 Benzoic acid reacts with conc.HNO $_3$ and conc.H $_2SO_4$ to give-

a) o-nitrobenzoic acid b) p-nitrobenzoic acid c) m-nitrobenzoic acid d) o,p-dinitrobenzoic acid

1.5 An inorganic compound producing an organic compound on heating is-

a) Ammonium cyanate b) Soda lime c) Sodamide d) Potassium cyanide

1.6 Reaction of ethyl formate with excess of CH₃Mgl followed by hydrolysis gives-

a) Ethanol b) n-propyl alcohol c) Propanal d) Isopropyl alcohol

1.7 Formic acid and acetic acid are distinguished by reaction with-

a) Sodium ethoxide b) Sodium c) HgCl₂d) 2,4-dinitrophenylhydrazine

1.8 Heating a mixture of sodium benzoate and soda lime gives-

a) Calcium benzoate b) Benzene c) Sodium benzoate d) Methane

1.9 A mixture of benzaldehyde and formaldehyde on heating with aqueous NaOH solution gives-

a) Benzyl alcohol + Sodium formate
b) Sodium benzoate + Methanol c) Benzyl alcohol + Methanol
d) Sodium benzoate + Sodium formate

1.10 Under Wolff-Kishner reduction conditions, the conversions which may be brought about are-

a) Cyclohexanone into Cyclohexane b) Benzaldehyde into Benzyl alcohol c) Cyclohexanone into Cyclohexanol d) Benzophenone into Diphenyl Methane

1.11 Which of the following IS the most reactive towards participating in nucleophilic addition reaction?

a) Formaldehyde b) Acetone c) Pentanone d) Butanone

1.12 The chemical reactions of aldehyde and ketones are governed by-

a) Steric effect b) Electronic effect c) Both a and b d) None of these

1.13 The type of chemical interaction that exists within aldehyde and ketone is-

a) Dipolar interaction b) H-bonding c) Van der waals forces d) None of these

1.14 Which of the following statements is not correct?

a) Aldehydes and ketones undergo nucleophilic addition b) Aldehydes and ketones undergo electrophilic substitution c) Aldehydes and ketones contain polar carbonyl group d) Lower members of aldehydes and ketones are soluble in water due to hydrogen bonding

1.15 Compound 'A' undergoes formation of cyanohydrins which on hydrolysis gives lactic acid (CH₃CHOHCOOH). Therefore, compound 'A' is-

a) Formaldehyde b) Acetaldehyde c) Acetone d) Benzaldehyde

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