ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

FOR GOD AND COUNTRY

WORKSHEET-46(CLASS-12)

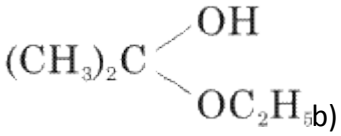
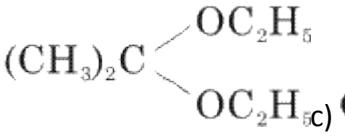
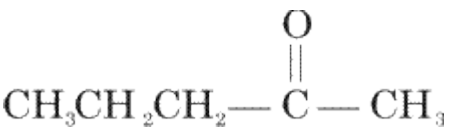
TOPIC- ALDEHYDE AND KETONE

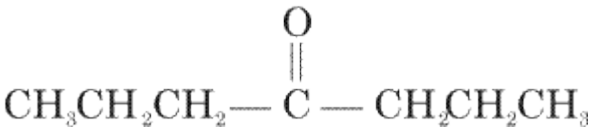
SUBTOPIC-PREPARATION AND CHEMICAL REACTIONS

SUBJECT – CHEMISTRY **F.M. - 15**

DURATION – 30 mins **DATE -27.07.20**

1.1 **Acetone is treated with excess of ethanol in the presence of hydrochloric acid. The product obtained is-**

a)  b)  c) 

d) 

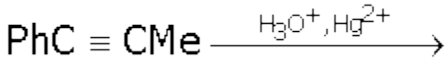
Ans.b

1.2 **Clemmensen reduction of a ketone is carried out in the presence of which of the following?**

a) H_2 and Pt as catalyst b) Glycol with KOH c) Zn-Hg with HCld) $LiAlH_4$

Ans. c

1.3 **Identify the product in the reaction-**



a) $PhCH_2CH_2CHO$ b) $PhCOCH_2CH_3$d) $PhCH_2COCH_3$d) PhCOCOMe

Ans. b

1.4 **The compound which forms acetaldehyde when heated with dilute NaOH is-**

a) 1-chloro ethane b) 1, 1-dichloro ethane c) 1, 2-dichloro ethane d) 1, 1, 1 -trichloro ethane

Ans. b

1.5 **An organic compound X is oxidized by using acidified $K_2Cr_2O_7$. The product obtained reacts with phenyl hydrazine but does not answer silver mirror test. The possible structure of X is-**

a) $(CH_3)_2CHOH$ b) CH_3CHO c) CH_3CH_2OHd) Acetone

Ans. a

1.6**Reaction of ethyl formate with limited supply of CH_3MgI followed by hydrolysis gives-**

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

Ans. c

1.7 **For making distinction between 2-pentanone and 3-pentanone the reagent to be employed is-**

a) $K_2Cr_2O_7/H_2SO_4$ b) Zn-Hg/HCl c) SeO_2 d) Iodine/NaOH

Ans. d

1.8 **In which of the following reactions new carbon-carbon bond is not formed-**

a) Cannizzaro reaction b) Wurth reaction c) Aldol condensation d) Friedel-Crafts reaction

Ans. a

1.9 **A strong base can abstract an alpha-hydrogen from –**

a) Amine b) Alkane c) Alkene d) Ketone

Ans. d

1.10 **Reduction of aldehydes and ketones into hydrocarbons using zinc amalgam and conc. HCl is called –**

a) Cope reduction b) Dow reductionc) Wolff-Kishner reduction d) Clemmensen reduction

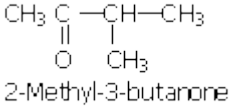
Ans. d

1.11 **The product formed in Aldol condensation is –**

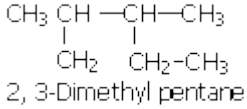
a) a beta-hydroxy aldehyde or a beta-hydroxy ketone b) an alpha-hydroxy aldehyde or ketone c) an alpha, beta unsaturated esterd) a beta-hydroxy acid

Ans. a

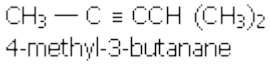
1.12**The incorrect IUPAC name is-**

a) 

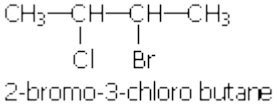
2-Methyl-3-butanone

b) 

2, 3-Dimethyl pentane

c) 

4-methyl-3-butanane

d) 

2-bromo-3-chloro butane

Ans. a

1.13**Formalin is an aqueous solution of-**

a) Formic acid b) Acetaldehyde c) Formaldehyde d) Ethanoic acid

Ans. c

1.14**Carbonyl groups add flavor and fragrance to nature in the forms given below except-**

a) Vanillinb) Salicylaldehyde c) Formic acidd) Cinnamaldehyde

Ans. c

1.15**The geometry of the carbonyl group is-**

a) Trigonal planar b) Pyramidal c) Square planer d) Linear

Ans. a

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