

SUBJECT – CHEMISTRY

**DURATION – 30 mins** 

ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET-17(CLASS-12)

TOPIC- ALCOHOL, PHENOL AND ETHER SUBTOPIC-CHEMICAL REACTIONS OF ALCOHOL



F.M. - 15 DATE -11.06.20

1.1 Monochlorination of toluene in sunlight followed by hydrolysis with aq. NaOH yields-a) o-

Cresol b) m-Cresol c) 2, 4-Dihydroxytoluene d) Benzyl alcohol

1.2 How many alcohols with molecular formula  $C_4H_{10}O$  are chiral in nature? (a) 1 (b) 2 (c) 3(d) 4

1.3 What is the correct order of reactivity of alcohols in the following reaction?

 $\begin{array}{c} R & - OH + HCl \xrightarrow{ZnCl_2} R & - Cl + H_2O \\ a) 1^{\circ} > 2^{\circ} > 3^{\circ} b) 1^{\circ} < 2^{\circ} > 3^{\circ} c) 3^{\circ} > 2^{\circ} > 1^{\circ} d) 3^{\circ} > 1^{\circ} > 2^{\circ} \end{array}$ 

### 1.4 CH<sub>3</sub> CH<sub>3</sub> OH can be converted into CH<sub>3</sub>CHO by-

a) Catalytic hydrogenation b) Treatment with LiAlH<sub>4</sub>

c) Treatment with pyridinium chlorochromate d) Treatment with KMnO<sub>4</sub>

#### 1.5 The process of converting alkyl halides into alcohols involves-

a) Addition reaction b) Substitution reaction

c) Dehydrohalogenation reactiond) Rearrangement reaction

### 1.6 Which of the following compounds is aromatic alcohol?



a) A, B, C, D b) A, D c) B, C d) A

### 1.7 Which of the following cannot be used to convert RCHO into RCH<sub>2</sub>OH?

a) H<sub>2</sub>/Pd b) LiAlH<sub>4</sub>c) NaBH<sub>4</sub>d) Reaction with RMgX followed by hydrolysis

### 1.8 Which of the following reagents can be used to oxidise primary alcohols to aldehydes?

a) CrO<sub>3</sub> in anhydrous medium b) KMnO<sub>4</sub> in acidic medium.

c) Pyridinium chlorochromate d) Heat in the presence of Cu at 573K.

# 1.9 Which alcohol will undergo elimination reaction to give alkene in the presence of acidic potassium dichromate?

a) Primary alcohol b) Secondary alcohol c) Tertiary alcohol d) All of above

1.10The distinction test for primary secondary and tertiary alcohol required to react each of them is-

a) Conc. HCI and anhydrous SOCl<sub>2</sub> b) Conc. HCI and anhydrous ZnCl<sub>2</sub>

- b) Cone. HCI and anhydrous CaCl<sub>2</sub>d)Conc. HCI and anhydrous PbCl<sub>2</sub>
- 1.11Which compound is also known by the name of carbolic acid?

a) C<sub>2</sub>H<sub>5</sub>OH b) C<sub>6</sub>H<sub>5</sub>OH c) H<sub>2</sub>CO<sub>3</sub> d) CH<sub>3</sub>OH

- 1.12Heating phenol with Zn will yield-
- a) Benzene b) Benzoic acid c) Benzaldehyde d) Phenoxide ion
- 1.13 When phenol is heated with concentrated nitric acid the product is-
- a) Picric acid b) o-nitrophenolc) 1 3 5 -trinitro benzene d) p-nitrophenol
- 1.14 Which compound shows hydrogen bonding?
- a)  $C_2H_5OH$  b)  $C_6H_6$  c)  $C_2H_6d$ )  $CH_2CH_2$
- 1.15Ethanol can be converted into ethanoic acid by-
- a) Hydrogenationb) Hydration c) Oxidation d) Fermentation

## PREPARED BY: MR. ARNAB PAUL CHOWDHURY