# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

FOR GOD AND COUNTRY

## SOLUTION-17(CLASS-12)

**TOPIC- ALCOHOL, PHENOL AND ETHER**

**SUBTOPIC-CHEMICAL REACTIONS OF ALCOHOL**

**SUBJECT – CHEMISTRY** **F.M. - 15**

**DURATION – 30 mins** **DATE -11.06.20**

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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

**Ans. d**

1.2 **How many alcohols with molecular formula $C_4H_{10}O$ are chiral in nature?**

(a) 1 (b) 2 (c) 3(d) 4

**Ans. a**

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

$$R{-}OH + HCl \xrightarrow{ZnCl_2} R{-}Cl + H_2O$$

a) 1° > 2° > 3° b) 1° < 2° > 3° c) 3° > 2° > 1° d) 3° > 1° > 2°

**Ans. c**

1.4 **$CH_3$ $CH_3$ OH can be converted into $CH_3CHO$ by-**

a) Catalytic hydrogenation b) Treatment with $LiAlH_4$

c) Treatment with pyridinium chlorochromate d) Treatment with $KMnO_4$

**Ans. c**

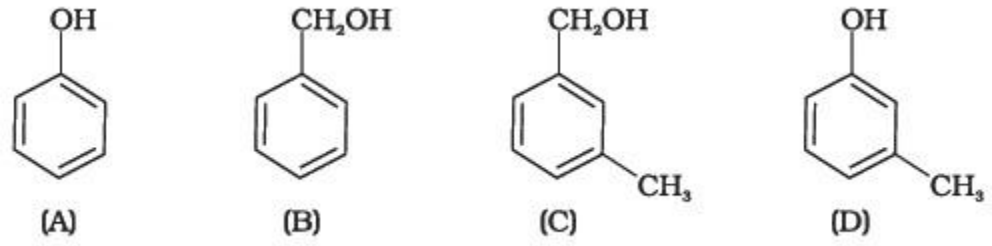
1.5 **The process of converting alkyl halides into alcohols involves-**

a) Addition reaction b) Substitution reaction

c) Dehydrohalogenation reactiond) Rearrangement reaction

**Ans. b**

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




(A) (B) (C) (D)

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

**Ans. b**

1.7 **Which of the following cannot be used to convert RCHO into $RCH_2OH$?**

a) $H_2$/Pd b) $LiAlH_4$c) $NaBH_4$d) Reaction with RMgX followed by hydrolysis

**Ans. d**

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

a) $CrO_3$ in anhydrous medium b) $KMnO_4$ in acidic medium.
c) Pyridinium chlorochromate d) Heat in the presence of Cu at 573K.
**Ans. c**

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
**Ans. c**

1.10 **The distinction test for primary secondary and tertiary alcohol required to react each of them is-**
**a)** Conc. HCI and anhydrous $SOCl_2$ b) Conc. HCI and anhydrous $ZnCl_2$
b) Cone. HCI and anhydrous $CaCl_2$ d)Conc. HCI and anhydrous $PbCl_2$
**Ans. b**

1.11 **Which compound is also known by the name of carbolic acid?**
a) $C_2H_5OH$ b) $C_6H_5OH$ c) $H_2CO_3$ d) $CH_3OH$
**Ans. b**

1.12 **Heating phenol with Zn will yield-**
a) Benzene b) Benzoic acid c) Benzaldehyde d) Phenoxide ion
**Ans. a**

1.13 **When phenol is heated with concentrated nitric acid the product is-**
**a)** Picric acid **b)** o-nitrophenol **c)** 1 3 5 -trinitro benzene **d)** p-nitrophenol
**Ans. a**

1.14 **Which compound shows hydrogen bonding?**
a) $C_2H_5OH$ b) $C_6H_6$ c) $C_2H_6$ d) $CH_2CH_2$
**Ans. a**

1.15 **Ethanol can be converted into ethanoic acid by-**
**a)** Hydrogenation **b)** Hydration **c)** Oxidation **d)** Fermentation
**Ans. c**

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