

**GIRLS' HIGH SCHOOL AND COLLEGE**

**2020-2021**

**Class XII A & B**

**CHEMISTRY**

**WORKSHEET NO. – 5**

**Note:** - Parents please ensure that your ward refers to the given reference books and website at least for two days.

**Reference Books** – Nootan ISC Chemistry- Vol II Class XII - H.C. Srivastava

ISC Chemistry Vol II Class XII - K.L. Chugh

**Website** – [www.wikipedia.org](http://www.wikipedia.org)

[www.studiestoday.com](http://www.studiestoday.com)

[www.khanacademy.org](http://www.khanacademy.org)

**Chapter- Alcohols, Phenols and Ethers**

**Topic: Alcohols**

Q1). How will you convert the following (Give balanced equations) ?

- i. Methanol to methyl amine.
- ii. Ethanol to ethyl acetate.
- iii. Formaldehyde to ethanol.
- iv. Acetone to t-butyl alcohol.
- v. Methanol to ethanol.
- vi. Ethanol to ethane.
- vii. Acetylene to ethanol.
- viii. Propan-1-ol to propene.
- ix. Ethanol to acetic acid.
- x. Propan-2-ol to acetic acid and formic acid.

Q2). Give balanced chemical equations for the following.

- i. Ethyl alcohol is treated with thionyl chloride.
- ii. Excess of ethyl alcohol is heated with conc. Sulphuric acid at 413K.
- iii. Ethanol is heated in presence of Cu at 573 K.
- iv. Methyl acetate with lithium aluminum hydride.

- v. Methyl amine is treated with nitrous acid.
- vi. Ethanol with methyl magnesium bromide.
- vii. Methanol with phosphorus penta chloride.

Q3). What is esterification? Explain it with the help of an example.

Q4). How will you distinguish between primary, secondary and tertiary alcohol by Victor Meyer's test?

Q5). Account for the following.

- i. Alcohols have higher boiling points as compared to those of corresponding alkanes.
- ii. Solubility of alcohols in water decreases with increase in molecular mass.
- iii. Alcohols are weaker acids than water.

Q6). What is the relative order of acidic strength of 1°, 2° and 3° alcohols? Justify the order.

Q7). Give one chemical test to distinguish between Propan-1-ol and Propane-2-ol.

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