ABBAH MARY EDUCHU
19/MHS01/001
MBBS.

1) This is based on the number of hydrogen atoms attached to the Carbon atom Containing hydroxyl group

Example;

C_2H_5OH - Ethanol (1°)

$CH_3CH(OH)CH_3$ - Propan-2-ol (3°)

b. - This is based on the number of hydroxyl group they posses.

- Monohydric alcohols have one hydroxyl group present in the alcohol Structure.
- Dihydric alcohol have two hydroxyl group present in their alcohol structure.

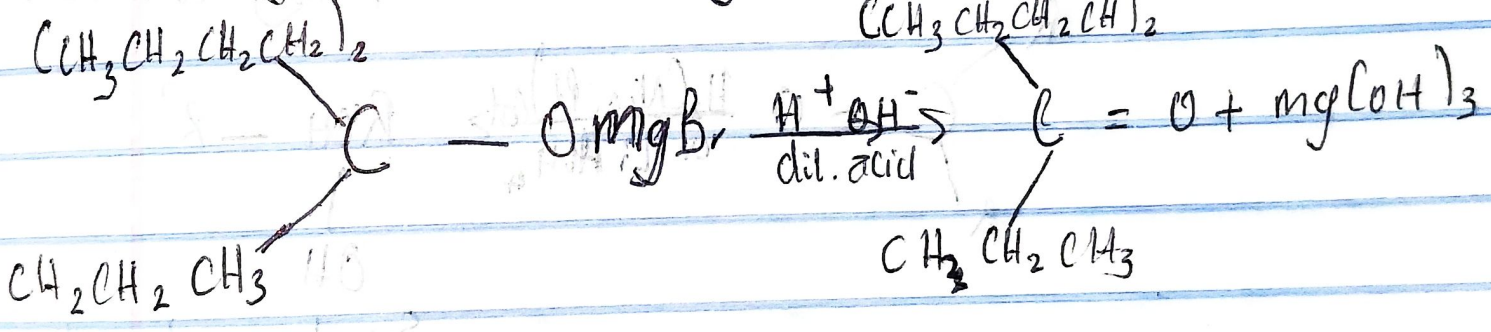
- Trihydric alcohol have three hydroxyl group present in their alcohol structure.
- Polyhydric alcohol have more than three hydroxyl groups

Example;

CH_3OH - Methanol (monohydric alcohol).

$CH_3CH(OH)CH(OH)CH(OH)CH(OH)CH(OH)CH_3$ - Heptane-2,3,4,5,6-pentaol (Polyhydric alcohol)

2. Named Gringard Reagent; Butyl magnesium bromide ($CH_3CH_2CH_2CH_2MgBr$) $CH_3CH_2CH_2MgBr + CH_3CH_2CH_2CH_2C=OCH_2CH_2CH_3$



3. Starch containing materials and on warming with malt to 60°C for a specific period of time are converted into maltose by the enzyme diatase contained in malt.

$2(C_6H_{10}O_5)_n + nH_2O \xrightarrow[\text{diatase}]{60^\circ C} nC_{12}H_{22}O_{11}$

Carbohydrate. maltose

The maltose is broken down into glucose on addition of yeast which contains the enzyme maltase and at a temperature of 15°C

$$C_{12}H_{22}O_{11} + H_2O \xrightarrow[\text{maltase}]{15^\circ C} 2C_6H_{12}O_6$$

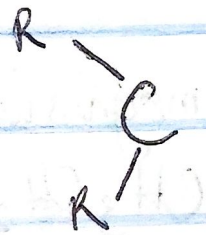
glucose

The glucose at constant temprature of 15°C is then converted into alcohol by the enzyme zymase Contained also in yeast.

$$C_6H_{12}O_6 \xrightarrow[\text{zymax}]{15^\circ C} 2CH_3CH_2OH + 2CO_2$$

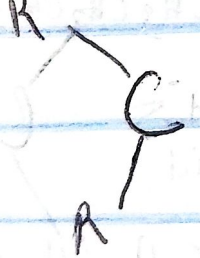
glucose. Ethanol

4.



$\xrightarrow[\text{or } LiALH_4]{H_2[Ni\,or\,Pt]/cat}$ RCH_2OH

Primary alcohol.



$\xrightarrow[\text{or } LiAlH_4]{H_2[Ni\,or\,Pt]/cat}$ $RCH(OH)-R'$

Secondary alcohol.