

NAME: PREMU BRAESSING AYOMIDE
DEPARTMENT: PHARMACY
MATRIC NO: 19/MHS11/033
COURSE CODE: CHEM 102

1.a) This is based on the number of groups hydrogen atoms attached to the carbon atom containing the hydroxyl group. If the numbers of hydrogen atom attached to the carbon atom bearing the hydroxyl group are one, three or two, it is called primary alcohol, one is called secondary alcohol, zero is called tertiary alcohol. e.g CH_3OH (methanol) (1°)

b) This is based on the number of hydroxyl groups they possess. Monohydric alcohols have one hydroxyl group present in the alcohol structure. Dihydric alcohols are also called glycols because of the two hydroxyl groups present in the alcohol structure. Trihydric have three hydroxyl groups present in the alcohol structure.

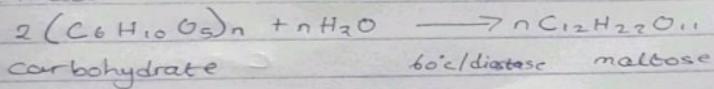
20) In water:

Lower alcohols with up to three carbon atoms in their molecules are soluble in water because these lower alcohols can form hydrogen bond with water molecules. The solubility of alcohols

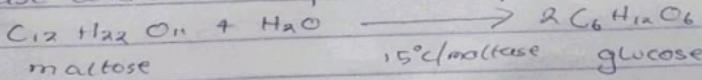
b) Organic solvents:

All monohydric alcohols are soluble in organic solvents. The solubility of simple alcohols and polyhydric alcohols is largely due to their ability to form hydrogen bonds with water molecule.

- 3a) The starch containing materials include molasses, potatoes, cereals, rice and on warming with malt to 60°C for a specific period of time are converted into maltose by an enzyme diastase contained in the malt.

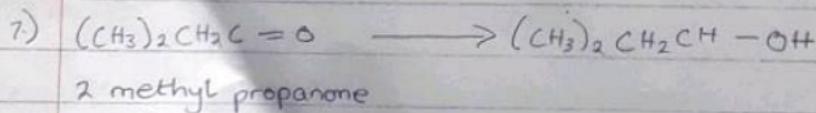
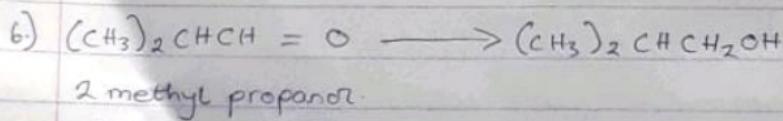
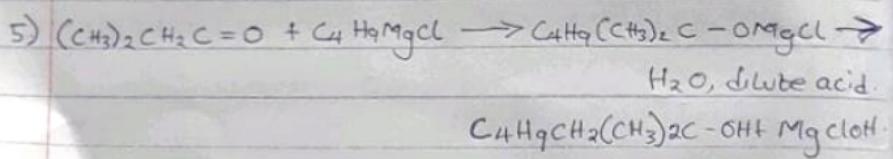
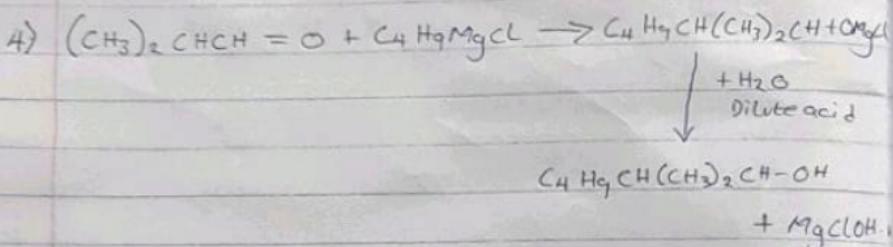
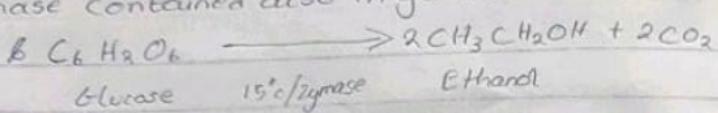


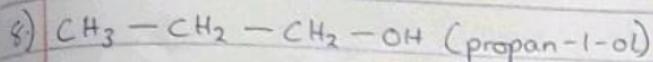
- b) The maltose is broken down into glucose on addition of yeast which contains the enzyme maltase and at a temperature of 15°C .



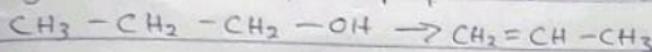
- c) The glucose at constant temperature of 15°C is then converted into alcohol by the enzyme

Zymase contained also in yeast



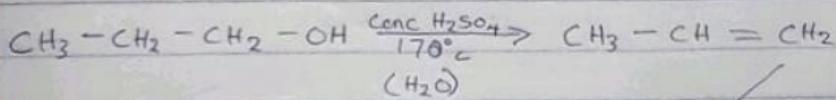
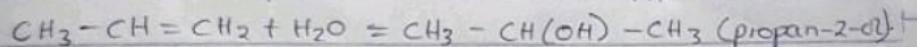


Heat in the presence of concentrated H_2SO_4 , to dehydrate it and form propene ($\text{CH}_2 = \text{CH} - \text{CH}_3$)₂



(after heating with concentrated H_2SO_4).

Now to propene add water (you may use mercuric acetate as it favours Markownikoff addition).



HBr

