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18/ENG02/074

COMPUTER ENG.

①a) Based on the no. of hydroxyl group they possess: Monohydric alcohols have one hydroxyl group present in the alcohol structure. Dihydric have two, trihydric have 3.

e.g. $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$ - propanol (monohydric)

$\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{CH}(\text{OH})\text{CH}_2\text{CH}_3$ - Hexane-2,4-diol
(Dihydric)

b) Based on the no. of hydrogen atoms attached to the carbon atom containing the hydroxyl group:

e.g. CH_3OH - methanol (1°)

$\text{CH}_3\text{CH}(\text{OH})\text{CH}_3$ - propan-2-ol (2°)

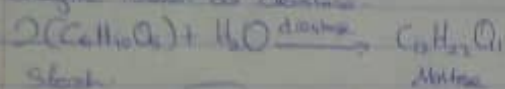
② Lower alcohols with up to 3 carbon in their molecules are soluble in water because these alcohols can form hydrogen bonds with water molecules. The water solubility of alcohols decreases with increasing relative molecular mass.

③ ~~Industrial~~ Starch is carbohydrate E₁ is an important source of ethanol. ~~Starch~~

— Extraction of starch! The Cashed potato is steamed at 110°C to 150°C under pressure to prepare starch solution

known as Malt.

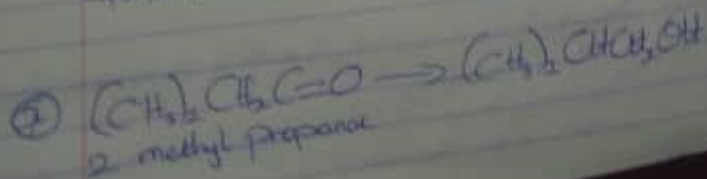
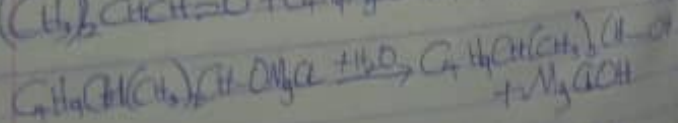
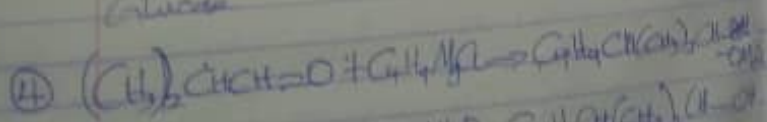
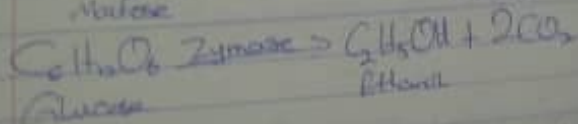
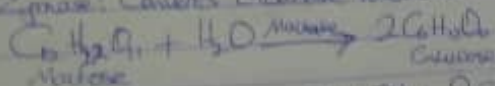
iii) Hydrolysis of Starch: Starch is hydrolyzed to maltose by enzyme known as diastase.



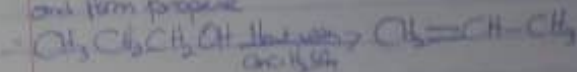
iii) Fermentation: Finally, yeast which converts into sugar is added to Maltose.

→ Maltase: Converts Maltose to glucose

→ Zymase: Converts Glucose to ethanol



(3) Heat in the presence of conc. H_2SO_4 to dehydrate it and form propene



Add water to propene to yield propan-2-ol

