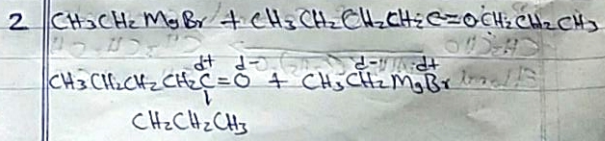
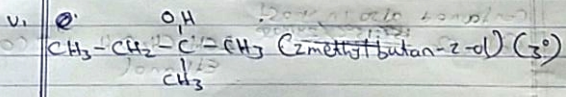
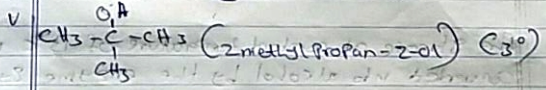
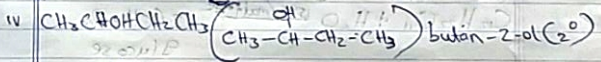
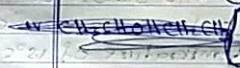
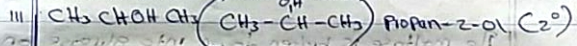
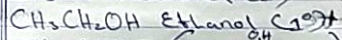
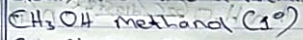
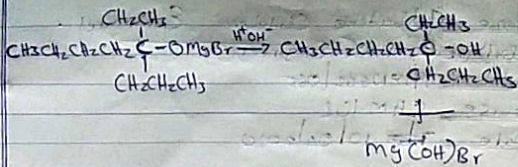


Name: Ubadike Chidelem Emmanuel.  
 Department: Computer Engineering  
 Matic No: ALENGOZ/065  
 Course: CHM 102  
 Date: 10/04/2020

Assignment

1 According to the number of hydrogen attached to the carbon atom containing the hydroxyl group. If the numbers of hydrogen atoms attached to carbon atom bearing the hydroxyl group are three or two, it is called a primary alcohol (1°) if it is one hydrogen atom, it is called secondary alcohol (2°) and if one hydrogen atom is attached to the carbon atom bearing the hydroxyl group, it is called a tertiary alcohol (3°) E.g

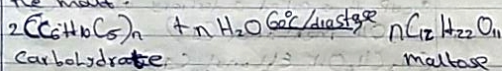




The alcohol produced is  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{C}(\text{OH})(\text{CH}_2\text{CH}_2\text{CH}_3)\text{CH}_2\text{CH}_2\text{CH}_3$   
 4 ethyl octan-4-ol

### 3 Production of Ethanol

Starch containing materials include ~~maltose~~ <sup>maltose</sup>, Potatoes, Cereals, rice and on warming with malt to  $60^\circ\text{C}$  for a specific period of time are converted into maltose by the enzyme ~~diastase~~ <sup>diastase</sup> contained in the malt.

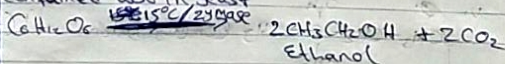


The maltose is broken down into glucose on addition of yeast which contains the enzyme ~~the~~ maltase and at a temperature of  $15^\circ\text{C}$

$$\text{C}_{12}\text{H}_{22}\text{O}_{11} + \text{H}_2\text{O} \xrightarrow{15^\circ\text{C}/\text{maltase}} 2\text{C}_6\text{H}_{12}\text{O}_6$$

Glucose

The glucose at constant temperature of  $15^\circ\text{C}$  is then converted into alcohol by the enzyme Zymase contained also in yeast



### 4 Reduction of Carbonyl Compounds

