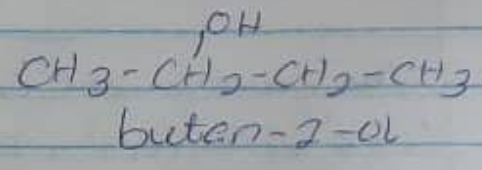
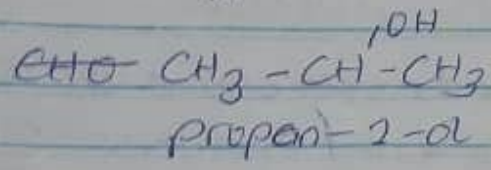


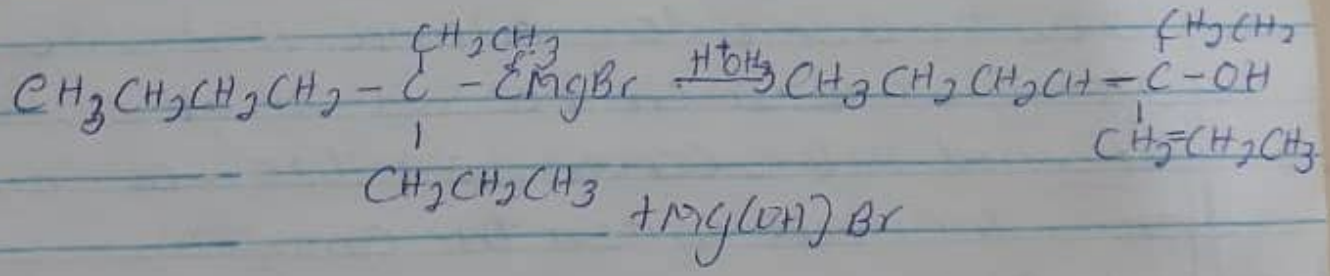
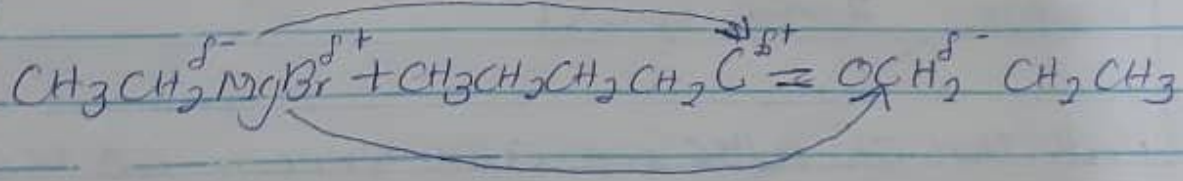
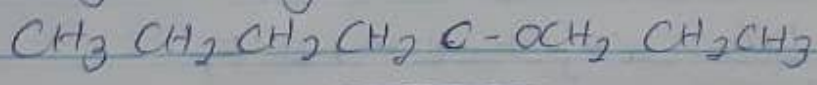
NAME: IKOBIND DUBORAH - LUAN. DATE: 09/04/2020  
 COURSE: CHEMISTRY 102 DEPARTMENT: MBBS  
 MATRIC NO: 191115011204

1) Primary alcohol is an alcohol which has the hydroxyl group connected to a primary carbon atom. It can also be defined as a molecule including ethanol and butanol.

Secondary alcohol are those where the carbon atom of the hydroxyl group is attached to two alkyl group on either side. The two alkyl present may be either structural, identical or even structural <sup>different</sup>. Some of the examples



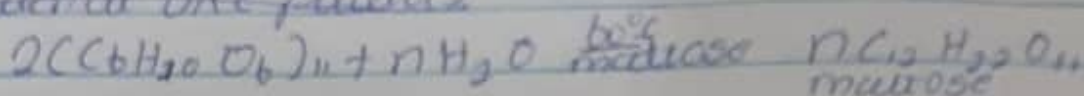
2) Grignard synthesis



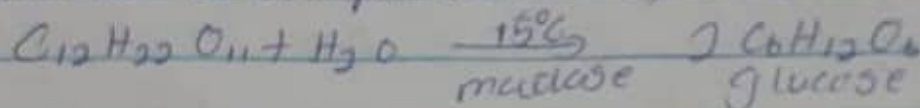
3) Carbohydrate such as starch are major group of natured compound that can be made to yield ethanol by biological process of fermentation. Enzymes found in yeast breakdown, the carbohydrate molecules into ethanol to give a yield of 95%. The starch containing molecules like potato, mallee

on warming with malt to  $60^{\circ}\text{C}$  for a specific period of time are converted into maltose by the enzyme diastase contained in the malt.

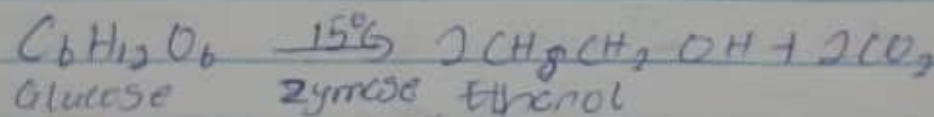
maltose like polymer



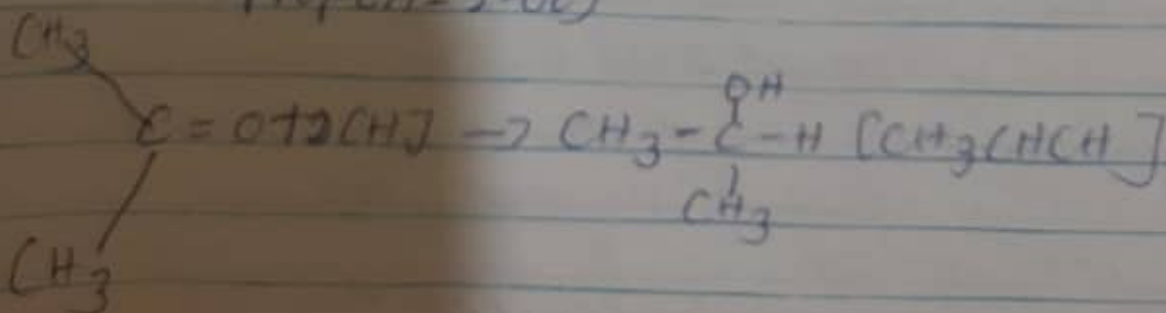
The maltose is broken down into glucose on addition of yeast which the enzymes maltase and at a temperature of  $15^{\circ}\text{C}$ .



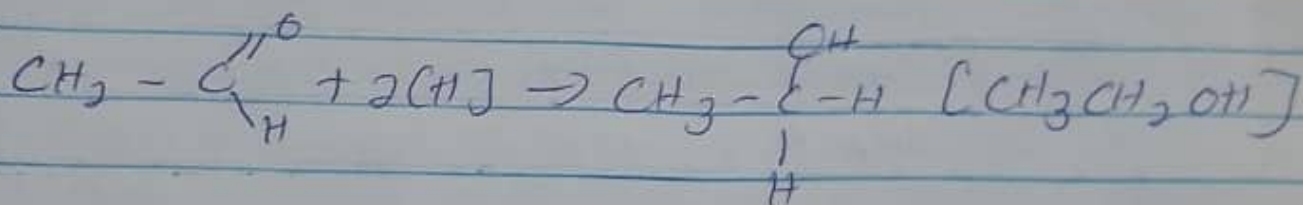
The glucose at constant temperature of  $15^{\circ}\text{C}$  is then converted into alcohol by enzyme zymase contained also in yeast.



ii) Reduction of alkenone also known as ketone leads to a secondary alcohol. A secondary alcohol is one which has two alkyl groups attached to the carbon with the  $-\text{OH}$  group on it. They all contain the grouping  $-\text{CHOH}$  [example with propanone you get propan-2-ol]



The reduction of an aldehyde for example with ethanal you get ethanol



The H in square bracket means "hydrogen from a reducing agent in general terms, reduction of an aldehyde leads to a primary alcohol. A primary alcohol is ~~one~~ one which only has one alkyl group attached to the carbon the -OH group on it. They all contain the grouping -CH<sub>2</sub>OH.