* Question 1; there are two major classifications of alkanol. Alkanol are also known as alcohols
* They are ; primary alkanols(1o)
* Secondary alkanols (2o)

**Primary alkanols**

The carbon which carries the –OH group only attracted to one alkyl group. Some examples of primary alkanol include

CH3CH2-OH CH3-CH-CH2-OH

(ETHANOL) (PROPAN-1-OL)

CH3-CH-CH2-OH

|

CH3

(2-METHYL PROPAN-1-OL)

* **Secondary alkanol**

The carbon with one –OH group attached to two alkyl groups, which may be the same or different

Examples

OH OH

| |

CH3-CH-CH3 CH3-CH-CH2-CH3

**(propan-2-ol)** (butan-2-ol)

O

||

2. **CH3 Mg Br + CH3CH2CH2CH2CCH2CH2CH3**

**(GRIGNARD REAGENTS) ( OCTAN-4-ONE)**

**CH3**

**Mg(Br)Cl + CH3CH2CH2CH2-C-CH2CH2CH3 QUESTION 3;**

**INDUSTRIAL MANUFACTURE OF ETHANOL**

**Carbohydrate is converted into maltose at a temperature of 60o and by the enzyme diastase**

**2(C6H10O5)n+H2O 60OC/diastase n C12H22O11**

(Maltose)

**Maltose is broken down into glucose or addition of yeast which contains enzyme maltose at 15oC**

**C12H22O11** + **H2O 15OC/maltose** **C6H12O6**

(**Glucose)**

**Glucose at constant temp 15oC is converted into alcohol with enzyme zymase contained also in yeast**

**C6H12O6 15OC/zymase** **2CH3OH + Co2**

**(ethanol) ( carbondioxde)**

O

**4. CH2CH3C** **LiAlH2 CH3CH2CH2OH**

H **H2O**