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MBBS

19/MAY/2020

CAM ASSIGNMENT

13/05/2020

1. CLASSIFICATION OF ALCOHOLS

A. BASED ON THE NUMBER OF HYDROXYL ($-OH$) GROUP: This has to do with the number of hydroxyl group present in an alcohol compound. The three classifications under this are:

- i. Monohydric alcohol e.g ethanol
- ii. Dihydric alcohol e.g ethane-1,2-diol
- iii. Trihydric alcohol e.g propane-1,2,3-triol

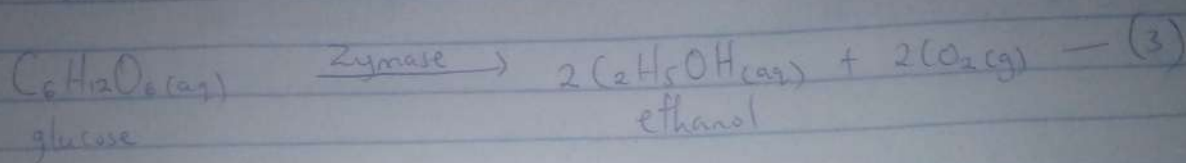
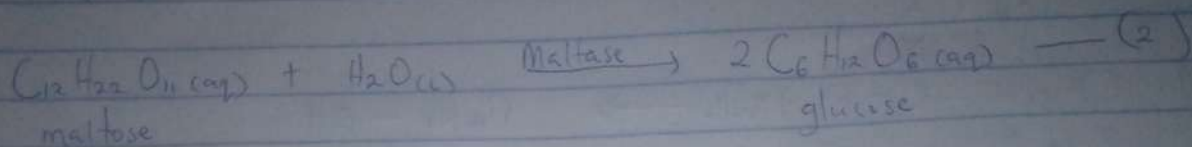
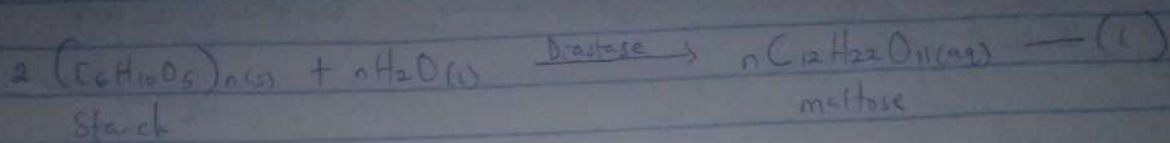
B. CLASSIFICATION BASED ON NUMBER OF ALKYL GROUP: This has to do with the number of alkyl groups attached to the carbon atom that carries the hydroxyl group. The three classifications under this are:

- i. Primary alcohol (1°) e.g ethanol
- ii. Secondary alcohol (2°) e.g propan-2-ol
- iii. Tertiary alcohol (3°) e.g 2-methyl butan-2-ol.

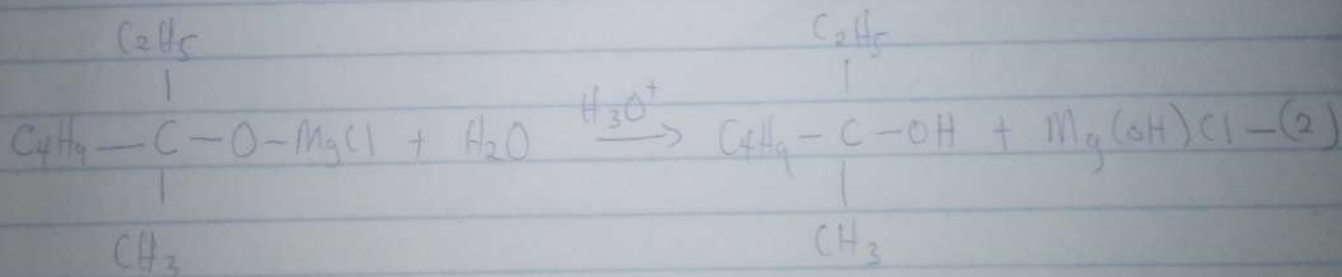
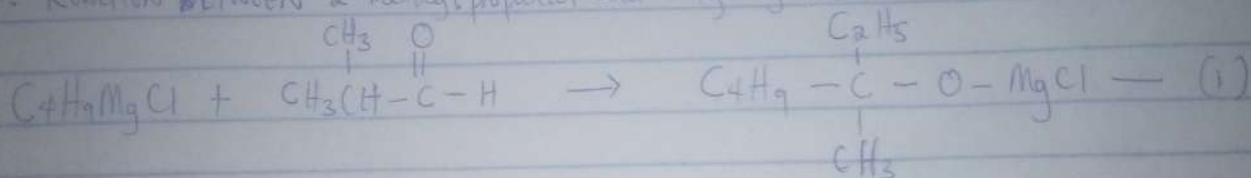
2. SOLUBILITY OF ALCOHOLS

The solubility of alcohols is affected by the presence of hydrogen bonding. Generally, hydrocarbons are not soluble in water, but alcohols are soluble because the hydroxyl groups in their molecules can form hydrogen bond with water. Primary alcohols with more than five carbon atoms are insoluble in water. And as for organic solvents, alcohols are soluble in them as the hydrogen hydroxyl group is capable of bonding to the other alcohol molecules.

3. STEPS IN THE MANUFACTURE OF ETHANOL



4. REACTION BETWEEN 2-methyl propanal and butylmagnesium chloride



5. REACTION BETWEEN 2-methyl propanone and butylmagnesium chloride

