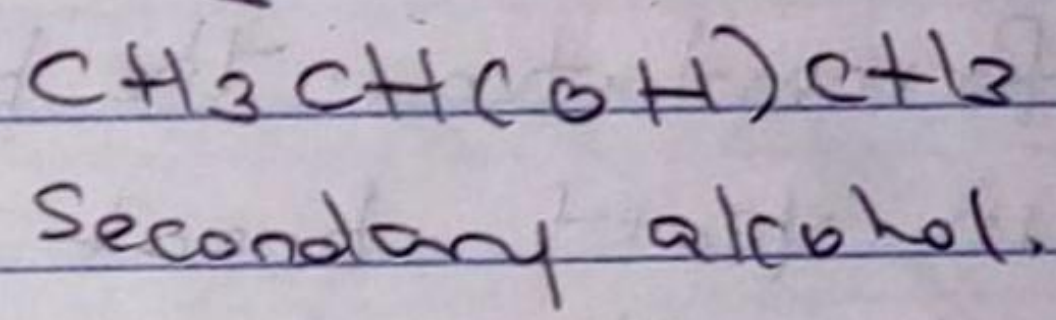
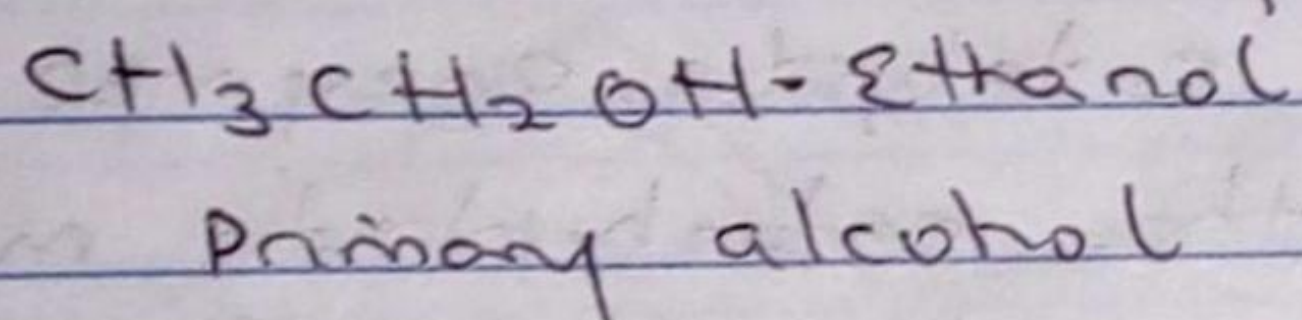
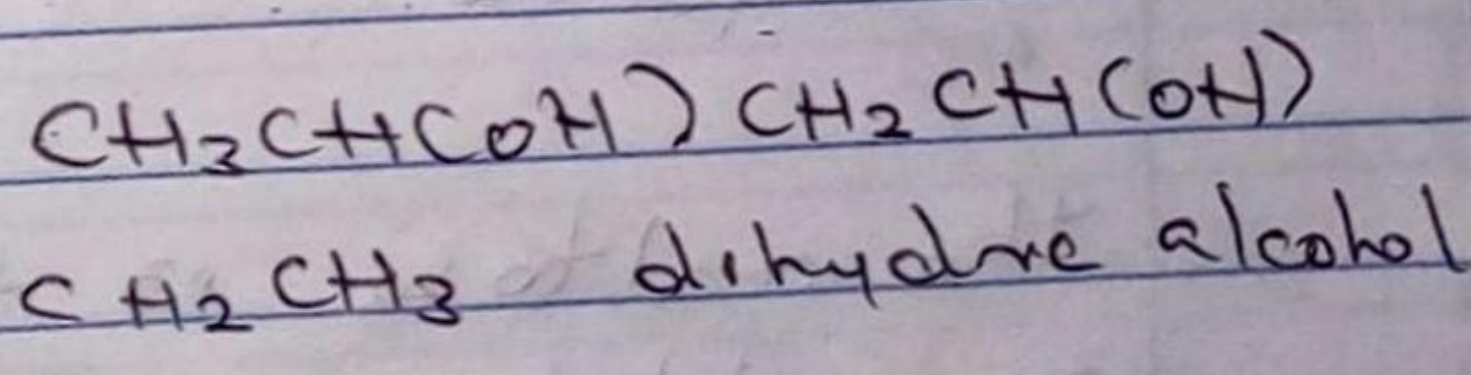
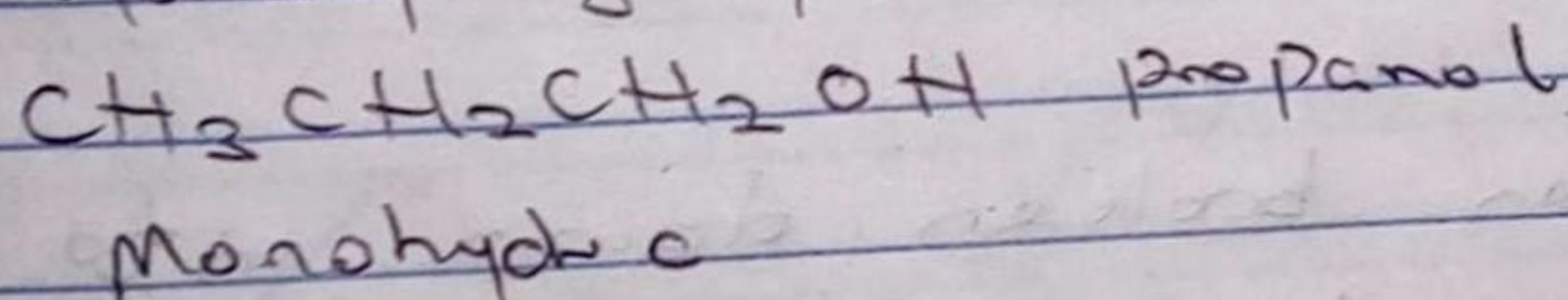


1. a) Alkanols are classified ~~the~~ based on the number of hydrogen atoms attached to the carbon atom containing the hydroxyl group. If the number of hydrogen atoms attached to the carbon atom bearing the hydroxyl group are two or three, it is called a primary alcohol. If it is one hydrogen atom, it is called a secondary alcohol and if no hydrogen atom is attached to the carbon atom bearing the hydroxyl group, it is called a tertiary alcohol. Eg.



b) They can also be classified based on the number of hydroxyl groups they possess. Monohydric alcohols have one hydroxyl group present in the alcohol structure, Dihydric or glycols and Trihydric or triols have two and three hydroxyl groups present in their alcohol structures respectively. Polyhydric alcohol or polyols have more than three hydroxyl groups. Eg.



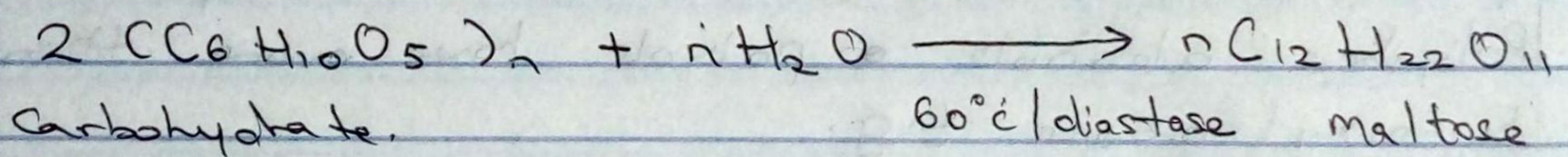
2. Solubility of alcohols in water:

Lower alcohols with up to three carbon atoms in their molecules are soluble in water because lower alcohols can form hydrogen bond with water molecules. The water solubility of alcohols decrease with increasing relative molecular mass.

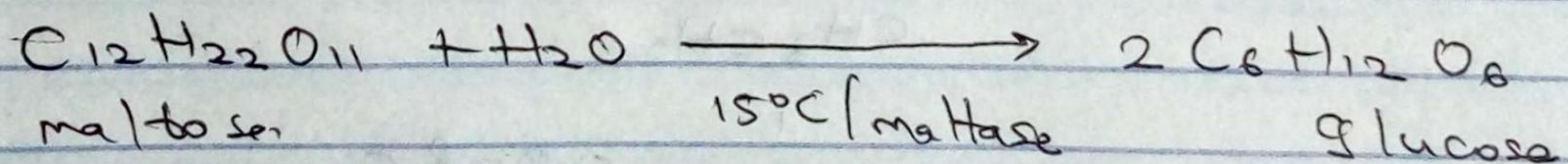
Solubility of alcohols in ~~water~~ organic solvents

All monohydric alcohols are soluble in organic solvents. The solubility of simple alcohols and polyhydric alcohols is largely due to ~~the~~ their ability to form hydrogen bonds with water molecules.

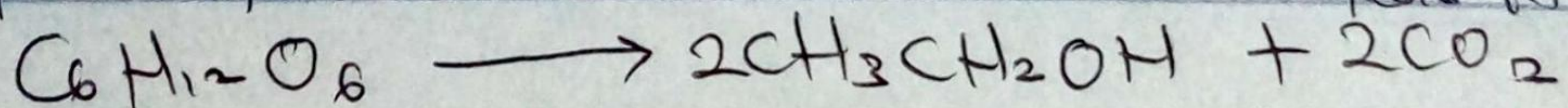
3. Starch containing materials include molasses, potatoes, cereals, rice and on warming with malt to 60°C for a specific period of time are converted into maltose by the enzyme diastase contained in the malt.



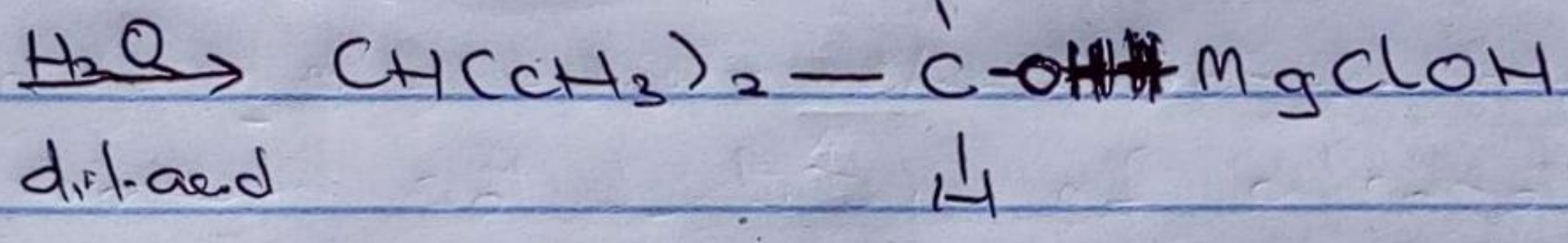
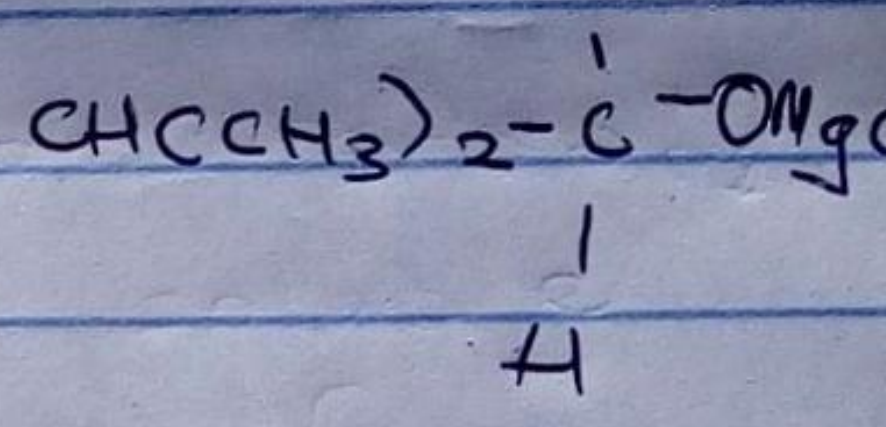
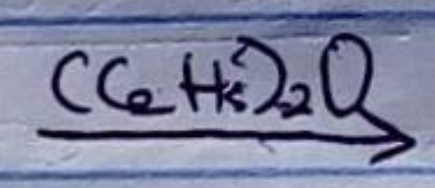
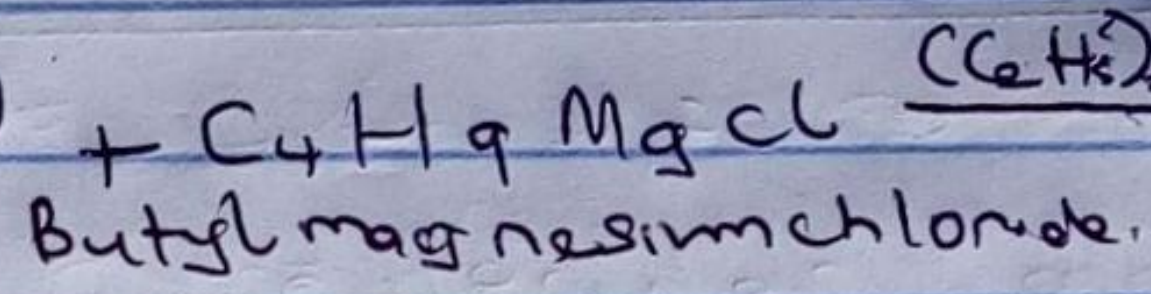
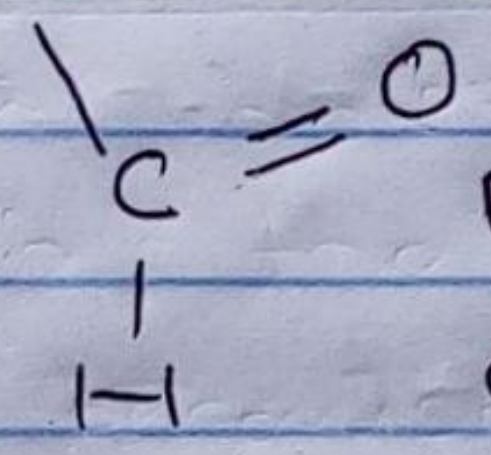
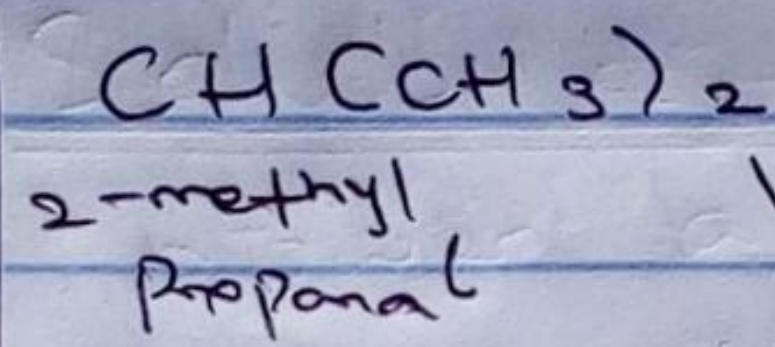
The maltose is then broken down into glucose on addition of yeast which contains the enzyme maltase and at a temperature of 15°C



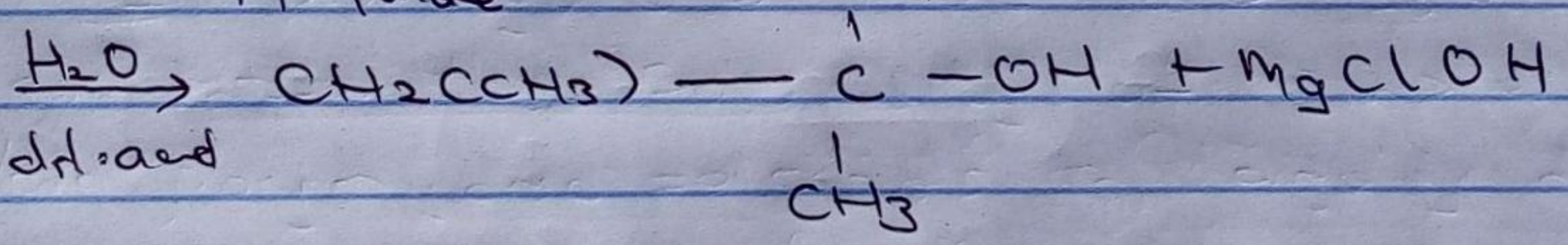
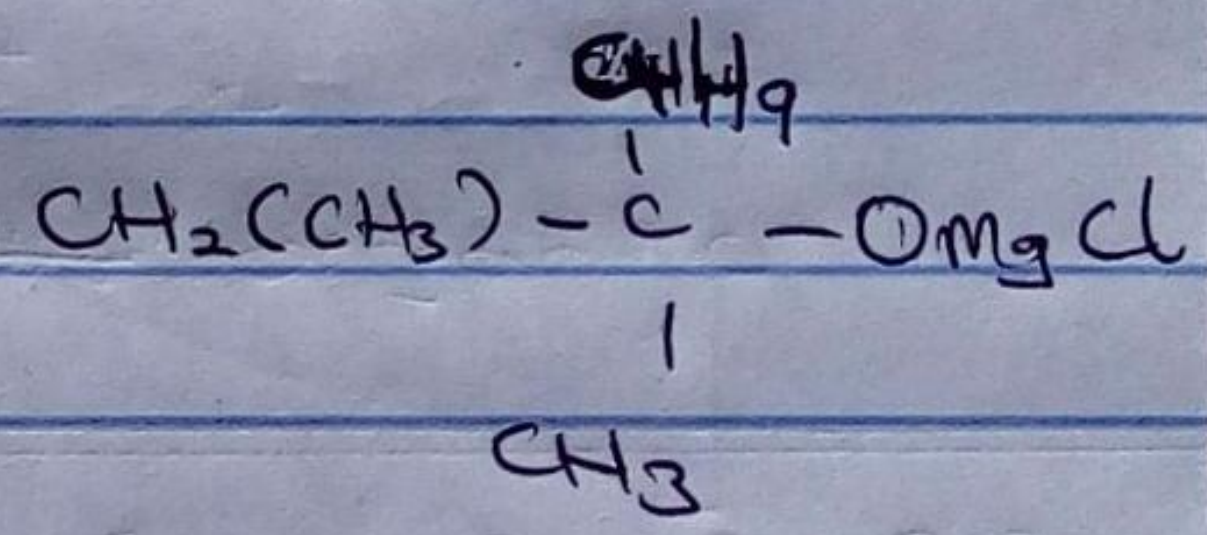
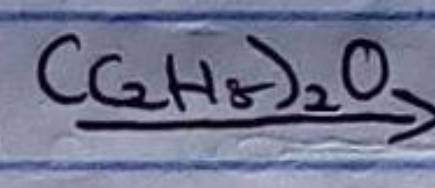
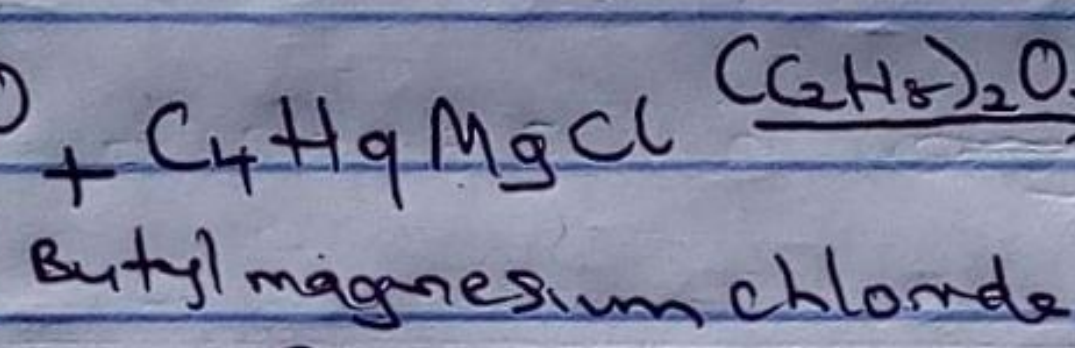
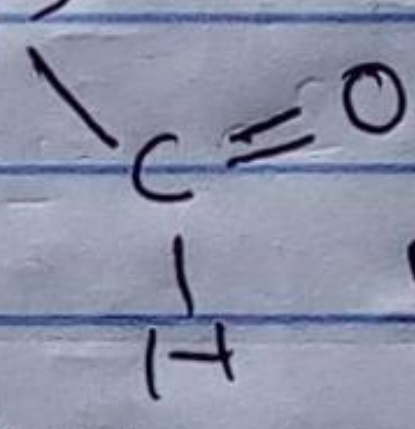
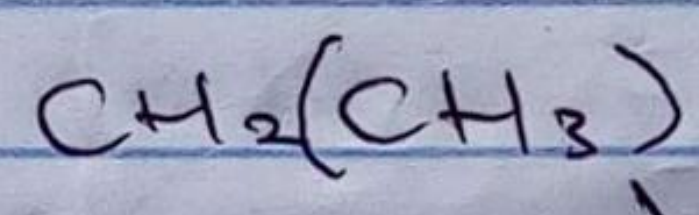
The glucose at constant temperature of 15°C is then converted into alcohol by the enzyme zymase contained also in yeast.



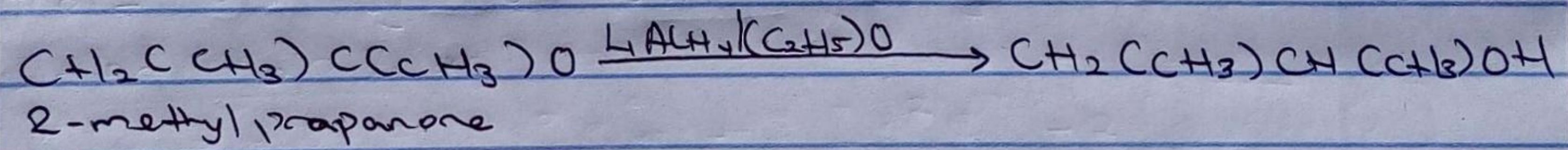
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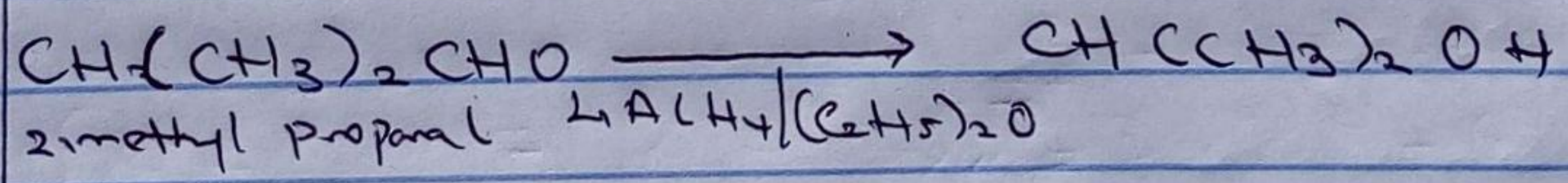
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8 Conversion of propan-1-ol to propan-2-ol

