

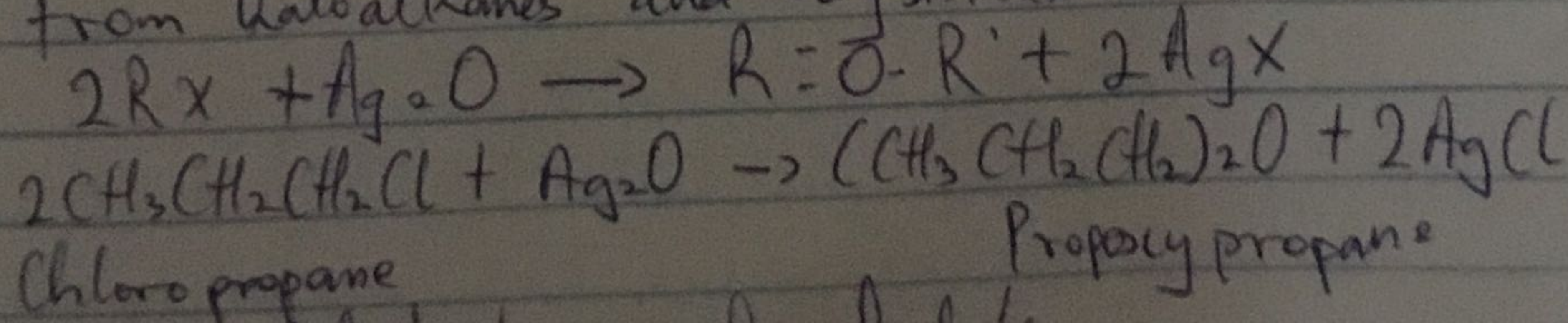
The Chidra
 Computer Engineering
 19/ENG02/020
 CHM 102

1. Give IUPAC Names
 - i. $\text{CH}_3\text{OCH}_3 \rightarrow$ Methoxymethane (di-methyl ether)
 - ii. $\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_3 \rightarrow$ Ethoxyethane (di-ethyl ether)
 - iii. $(\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2)_2\text{O} \rightarrow$ Butoxybutane (di-butyl ether)
 - iv. $\text{CH}_3\text{CH}_2\text{OCH}_3 \rightarrow$ Methoxyethane
 - v. $\text{CH}_3\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_3 \rightarrow$ Ethoxypropane.

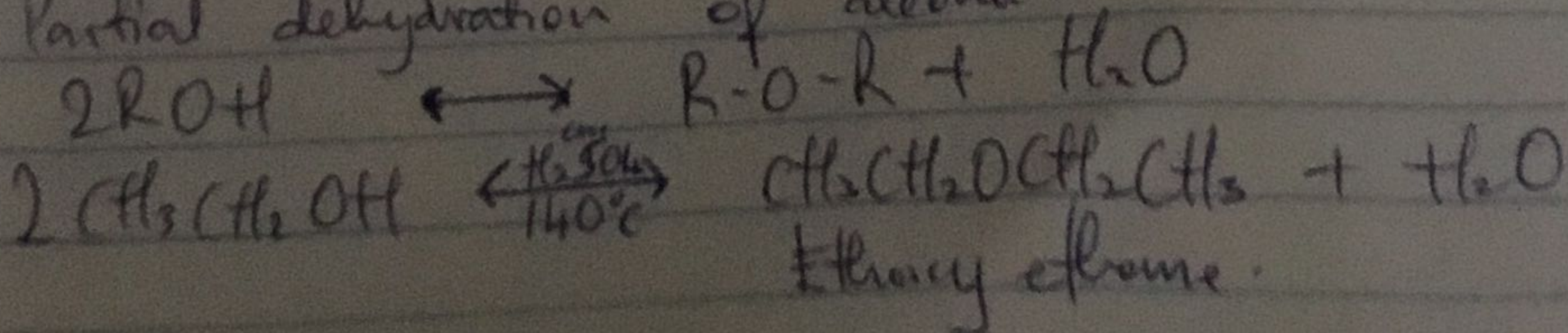
2. Discuss properties of Ethers.


- a. Physical Properties
 - i. Density - most of the simple ethers are less dense than water although density increases with increasing relative molecular mass.
 - ii. Physical state \rightarrow at room temperature ethers are colourless, neutral liquids with pleasant odours.
 - iii. Solubility: Ethers are less soluble in water than the corresponding alcohols. Lower molecular weight ethers such as methoxyethane and methoxy methane are fairly soluble in water.

3i. From haloalkanes and dry silver oxide



ii. Partial dehydration of alcohols



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- i. Ethylene oxide sterilization processes can sanitize medical and pharmaceutical products.
 - ii. Ethylene glycol, derived from ethylene oxide, is used to manufacture fiber of glass.
 - iii. It is used in the production of chemicals used for making cosmetics and shampoos.