

Name: Oru Fernando Jerome

Matric No 19/mats 01/359

Course code: CHM 102

### Assignment

1. Give IUPAC names

- (i)  $\text{CH}_3\text{OCH}_3 \Rightarrow$  methoxy methane (di-methyl ether).
- (ii)  $\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_3 \Rightarrow$  ethoxy ethane (di-ethyl ether).
- (iii)  $\text{C}_4\text{H}_9\text{OC}_4\text{H}_9 \Rightarrow$  Butoxybutane (di-butyl ether)
- (iv)  $\text{CH}_3\text{CH}_2\text{OCH}_3 \Rightarrow$  Methoxy ethane
- (v)  $\text{CH}_3\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_3 \Rightarrow$  Ethoxy propane.

2. Discuss the Properties of ethers.

(a) physical properties.

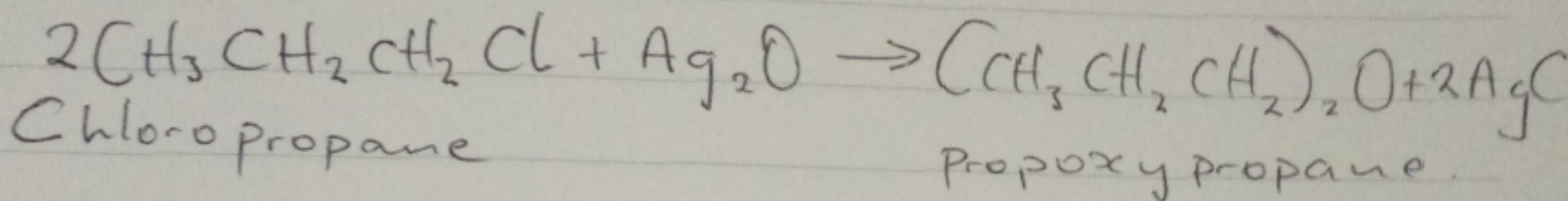
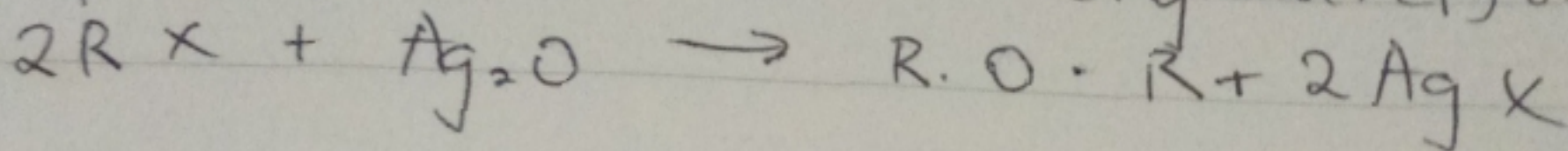
i. Density  $\rightarrow$  most of the simple ethers are less dense than water, although density increases with increasing relative molecular mass.

(ii) physical state  $\Rightarrow$  at room temperature, ethers are colourless, neutral liquids with pleasant odours

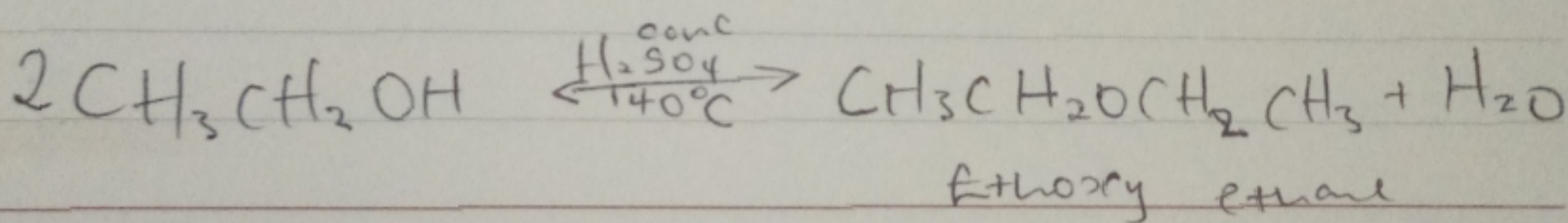
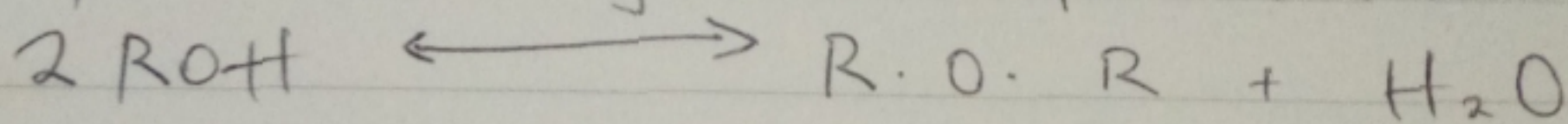
(iii) Solubility. ethers are less soluble in water than the corresponding alcohols. lower molecular weight ethers such as methoxyethane and methoxy

10 ~~Friday~~  
WEEK 24 162-204

(3.) (i) from haloalkanes and dry silver(I) oxide



(ii) i partial dehydration of alcohols

11 ~~Saturday~~  
WEEK 24 163-20312 ~~Sunday~~  
WEEK 24 164-202

(4.) (i) Ethylene oxide Sterilization processes can  
sanitize medical and pharmaceutical  
products

(ii) Ethylene is used in the production of  
chemicals used for making cosmetics and shampoo

(iii) Ethylene glycol; derived from ethylene oxide  
is used to manufacture fibre glass.