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DEPARTMENT: PHARMACY

MATRIC NO: 19/MYS11/136

1. Give the IUPAC names of the following

organic compounds:

a) $\text{CH}_3\text{CCH}_3 \rightarrow$ Methyl oxymethane

b) $\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_3 \rightarrow$ Ethoxyethane

c) $(\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2)_2\text{O} \rightarrow$ Butoxymethane

d) $\text{CH}_3\text{CH}_2\text{OCH}_3 \rightarrow$ Methoxy ethane

e) $\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_2\text{CH}_3 \rightarrow$ Ethoxy propane

2) Discuss the properties of ethers.

i) Physical states: Ethers are colourless at room temperature. They are neutral liquids with pleasant odours.

ii) Solubility: Ethers are less soluble in water than are the corresponding alcohols.

iii) Density: Most of the simple ethers are less dense than water but aromatic ethers are denser than water.

iv) Boiling point: Low molecular mass ethers have a lower boiling point than the corresponding alcohols.

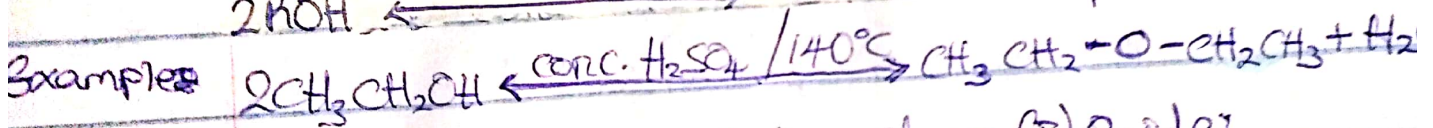
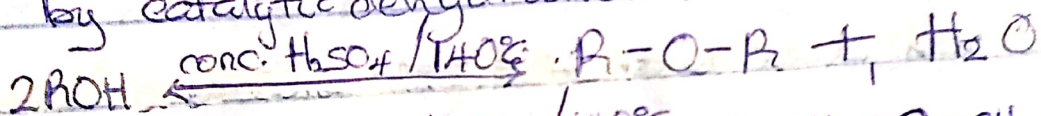
v) Reactivity: Ethers are inert at moderate temperature.

3. Discuss explicitly two methods of preparing ethers and show equations of reactions.

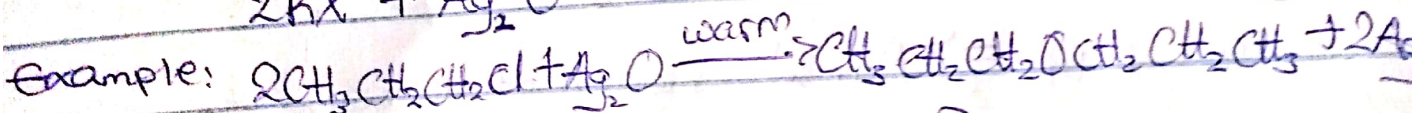
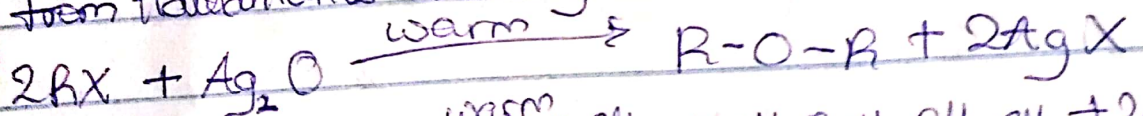
i) Partial dehydration of alcohols:

Simple ethers are manufactured from alcohols

by catalytic dehydration.



ii) From Haloalkenes and dry silver (I) Oxide:



Propoxypropane

A. State three uses of ethylene Oxide.

① Ethylene Oxide is used as a gaseous sterilizing agent.

② It is used as an intermediate in the hydrolytic manufacture of ethylene glycol.

③ It is used in the preparation of nonionic emulsifying agents, Plastics, Plasticizers and other products.