ASSIGNMENT ON ETHER

CHEMISTRY 12

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19/MHS09/014

DENTISTRY

1.a. Methoxymethane

b.Ethoxyethane

c. butoxymethane

d. methoxyethane

e. ethoxypropane

2. a. they are colorless, neutral liquids with pleasant odors at room temperature

b. they are less soluble in water than are the corresponding alcohols.

c. most of the simple ethers are less dense than water, although the density increases with increasing relative molecular mass and some are denser than water.

d. low molecular mass ethers have a lower boiling point than the corresponding alcohols but those ethers containing alkyl radicals larger than four carbon atoms, the reverse is true.

e. ethers are inert at moderate temperature.

3. a. by partial dehydration of alcohols

Simple ethers are manufactured from alcohols by catalytic dehydration. The alcohol in excess and concentrated tetraoxosulphate(vI) acid is heated at a carefully maintained temperature of 140 degrees.

2ROH conc. H2SO4/140 R-O-R +H2O

b. controlled catalytic hydration of olefins

2CH3CH=CH2 + H2O (CH3)2CH-O-CH(CH3)2

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

It is used in the preparation of nonionic emulsifying agents, plastics, plasticizers and several synthetic textiles.

It is used as a gaseous sterilizing agent.