

UZOWA CHINWE AGATHA

MEDICAL LAB. SCIENCE

17/MHS06/067

QUESTION 1

- (b) Organic compound is used in the production of insecticides.
- (i) Used in the production of some drugs.
 - (ii) Used as cleaning agents.
 - (iv) Used in the production of fuel.

(c) Homocyclic Compound

- (i) Have atoms of the same element as ring members.
- (ii) Have 100% carbon atoms in their rings.

- (iii) Aromatic homocyclic
- Alicyclic homocyclic

(iv) Phenol, Toluene

Heterocyclic Compound

Have atoms of different elements as ring members. Have Heteroatoms such as nitrogen, oxygen & sulphur in their ring.

Aromatic heterocyclic
Alicyclic heterocyclic

Pyridine, Furan

QUESTION 2

(a) Retardation Factor - $\frac{\text{Distance moved by bands}}{\text{Distance moved by solvent front}}$

$S_f = 12.2 \text{ cm}$

$$R_f \text{ (1)} = \frac{2.24 \text{ cm}}{12.2 \text{ cm}} = 0.199$$

$$R_f \text{ (2)} = \frac{5.6 \text{ cm}}{12.2 \text{ cm}} = 0.46$$

$$R_f \text{ (3)} = \frac{8.9 \text{ cm}}{12.2 \text{ cm}} = 0.73$$

(b) Aldehyde and ketone
(c) Aldehyde and ketone

d. (i) $C=C$ eg: (ene) Ethene, propene
(ii) $C\equiv C$ eg: (yne) Ethyne, (acetylene), propyne
(iii) $-C-OH$ eg: (anol) Ethanol, propanol
(iv) $H-C=O$ eg: (anal) Ethanal, propanal

(v) $>C=O$ eg: (anone) pentanone, Acetone

(vi) $OH-C-O$ eg: (anoic) Ethanoic acid, Propanoic acid
^(acetic)

(vii) $OH-C-O$ eg: (anoate)
OR

(viii) $-C=O$ eg: (anoate) Ethyl propanoate, Propyl methanoate etc

maximum number of carbon

$$\frac{105}{12} = \frac{8.75}{7.9} = 2N+2-19$$

C_8

to find H

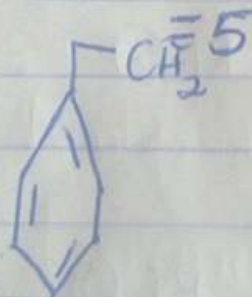
$$2 \times \frac{8+2-9}{2} = 4+5$$

$$12 \times 8 = 96$$

$$105 - 96$$

$$= 9$$

C_8H_9



2-Phenylethyl

Ethyl benzene