NAME: UZOMA FIDEL KETANDU

DEPARTMENT: MEDICINE AND SURGERY

MATRIC NUMBER: 17/MHS01/319

LEVEL: 100

COURSE CODE: CHEMISTRY 102

1a. What arethe possible formulars for a molecular ion (m/z) of 105

-C7H5O

-C7H7N

-C6HO2

-C6H9N2

-C6H5-CH2CH2

b. Importance of organic compounds

i) some drugs are made out of organic compounds eg antibiotics, anticancer drugs, painkillers, anti-depressants etc

ii) food materials are made of carbon compounds eg carbohydrates(cho), fats(ch-coo-ch)

iii) organic solvents can be used in industries and labs to clear impurities and as cleansing agents.

iv) most of the organic compounds like phenol ,formaldehyde are used as sterilizing agents and disinfectants

v) carbon compounds are used to make valuables such as diamonds, graphite and petroleum

c.

|  |  |
| --- | --- |
| HOMOCYCLIC | HETEROCYCLIC |
| 1. Compound ring contains only one type of atom ie carbon atom | Compound ring contains more than one atom including carbon |
| 2.They have 100% carbon atom in their ring | They have carbon and in addition nitrogen, oxygen and sulphur in their ring |
| 3.They are subdivided into alicyclic homocyclic and aromatic homocyclic | They are subdivided into alicyclic and aromatic heterocyclic |

2a) retardation factor= $\frac{distance moved by substance}{distance moved by solvent}$

RF1 $\frac{2.4}{12.2}$=0.197

RF2 $\frac{5.6}{12.2}$=0.459

RF3 $\frac{8.9}{12.2}$= 0.730

b) A- Aldehyde

 B- Ethene

c) It is used for identification of aldehydes and ketones.

d) alkanol- butanol, ethanol

 alkanoic acid- pentanoic acid, butanoic acid

 ester- ethyl ethnoate, butyl butanoate

 alkanes- septane, pentane

 alkene- octene, hexane

 alkanals- methanal, ethanol

 ketones- propanone, pentanone

$$\frac{}{}$$