Lucky favour chiamaka

Chem 102

17/MHS02/051

Nursing department

Question 1

a).suggest possible formulas for a molecular ion (m/z) of 105

b). What are the importance of organic compounds

 i) They are important constituent in the food we eat.

 ii) Used in industries for production antiseptic

 iii) Ethanol is also a staple in the beverage industry.

 Iv) Important in medicine for production of drugs.

 v) They are important constituent of crude oil therefore used as fuels for automobiles.

c). differentiate between homocyclic and heterocyclic compounds.

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| Homocyclic compounds | Heterocyclic compounds |
| They are cyclic compounds that contain atoms of the same elements bonded to each other to form a ring. Eg benzene, cyclohexane, toluene. | They are cyclic compounds that contain atoms of different elements as ring members including carbon. Eg pyran, azocine, thocane. |

Question 2

4.) If the distance of the solvent front is 12.2cm, 2.4cm, 5.6cm, 8.9cm are distances of the different bands respectively. Calculate the retardation factor of the available bands.

Retardation factor= $distance of solute÷distance of solvent.$

For band A = $2.4cm÷12.2cm=0.20.$

For band b= $5.6cm÷12.2cm=0.46 \~0.5$

For band c =$8.9cm÷12.2cm=0.73 \~ 1.0$

5.) Two organic compounds were labeled A and B. A gave appositive test result (dark grey precipitate) to tollens test while B decolorized bromine water. Suggest the family to which these organic compounds belong.

Compound A belongs to Aldehyde family

Compound B belongs to the Alkyne family

6.) 2,4-Dinitrophenylhydrazine test is employed for : aldehyde and ketones.

7.)

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| Functional groups  | Examples of compounds |
| -COOH | Ethanoic acids(CH3COOH), |
| -OH | Methanol (CH3OH), ethanol(CH5OH) |
| >C=O |  |
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