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COLLEGE: MHS

DEPARTMENT: PHYSIOLOGY

MATRIC NO: 17/MHS05/011

1a. Step1 105÷12= 8.75

 C7H21= [7×12 $+$ 21× 1= 105

 C6H33=6×12 $+$ 33×1=105

1b. IMPORTANCE OF ORGANIC CHEMISTY

- They can be used a medicines to cure diseases.

- They are essential as they are present in food substances which consists of mainly carbon and oxygen.

- They are used as sterilizing agents and disinfectants.

-Using different types of titration, chromatography techniques, they are used as analytic agents to analyze drugs, pesticides and other chemical substances.

- They are used as valuables and means of income and exchange when they exist in diamond, graphite, petroleum etc.

- Some can be used in the process to prepare other molecules or compound

-They are also used in textile and clothing.

1c.DIFFERENCES BETWEEN HOMOCYCLIC AND HETEROCYCLIC COMPOUNDS.

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|  | HOMOCYCLIC | HETEROCYCLIC |
| 1. | Homocyclic Compound ring contains only one types of atom. | Heterocyclic Compound ring contains at least two different types of atoms including carbon. |
| 2 | Homocyclic Compounds have 100% carbon atoms in their ring. | Heterocyclic Compounds have mainly carbon and, in addition, heteroatoms such as nitrogen, oxygen, and sulphur are found in their ring. |
| 3 | They are subdivided into; Alicyclic homocyclic and Aromatic homocyclic | Alicyclic heterocyclic and Aromatic heterocyclic |
|  | Phenol, Toluene, Naphthalene, and Anthracene | Tetrahydrofuran, Piperidine, Pyridine, Furan, and Pyrrole |

2.

a)retention factor RF, = Distance moved by the solvent

 Distance moved by the solute

Distance moved by solvent=12.2cm

Distance moved by solute A=2.4cm B=5.6cm C=8.9

Rf of A =2.4÷12.2 = 0.19

Rf of B= 5.6÷12.2 =0.46

Rf of C= 8.9÷12.2 =0.73

b)A- aldehydes

 B- alkenes.

c) aldehydes and ketones

d)

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|  | FUNCTIONAL GROUP | EXAMPLES |
| 1 | Alkane | Propane, methane. |
| 2 | Alkene | Ethene, propene |
| 3 | Alkyne | Ethyl, butyl |
| 4 | Haloalkane | 1-chloropropane, 2-bromopentane |
| 5 | Hydroxyl | Propanol, ethanol |
| 6 | Ketones | Propanone, |
| 7 | Carboxyl | Ethanoic acid, propanioc acid |