MATRIC NO: 17/MHS05/013
NAME: IKEORA CHISOM. C
DEPT: Physiology
COLLEGE: MHS

Chemistry Ass.

(i) $\frac{M}{2} = 105$

$\frac{105}{2}$ (To find number of carbon)

Nitrogen

So if the mass of the molecular ion is odd number it contain Nitrogen

Mass no of N = 14

105 - 14 = 91

To determine the no of Carbon atom we divide by 12

$\frac{91}{12} = 7.5$, C_7NH

It means the no of Carbon atom is 7 C_7N + enough H atom to complete

12x7 + 14 = 98

105 - 98 = 7

C_7NH_7

So the compound is C_7NH_7

$1Hs = \frac{2(7) + 2 - 7}{2} = 5$

Step (ii) Add an atom of Oxygen

$C_7NH_7 = C_6NOH_8$

105 - 16 = 89

89 - 14 = 75

Divide by 12

$75/12 = 6.25$

$C_6NOH_8 = \frac{2(6) + 2 - 3}{2}$

$= 5$

b) Important of organic Compound

i) They serve as the base of all Carbon - based on earth

ii) They are composed of Hydrogen, Oxygen and Carbon and are found in all life form.

iii) Carbohydrate provide life forms with the energy needed

iv) Crude Fuel is refined in gasoline, propane, diesel, kerosene and natural gas so cars and heating system can work.
v) They deple ozone level and cause smog.

c Homocyclic	Heterocyclic
i) They have atom of the same element and ring members	They have atoms of different element ring element
2) They have 100% of carbon atom in their ring.	They have mainly carbon atom and atoms such as N, O, S found in the ring
3) Ring contain only atoms of the same element	They contain atom of different element.

2) $Rf = \frac{\text{distance moved by substance}}{\text{distance moved by front}}$

$Rf = \frac{2.4 + 5.6 + 8.9}{12.2}$

$Rf = \frac{16.9}{12.2}$

$Rf = 1.39$

b(i) A belong to Aldehydes group (RCOH)
(ii) B is either Alkane or Alkyne.

c) 2,4 Dinitrophenyl hydrazine is employed to check or detect the carbonyl functionality of a ketone or aldehyde functional group.

d) Functional group

Functional group	Examples
1) Alkane	C_2H_6 (Ethane), C_3H_8 (propane)
2) Alkene	C_3H_6 (propene); C_5H_{10} (pentene)
3) Alkyne	C_7H_{12} (heptyne), C_8H_{14} (Octyne)
4) Aldehyde	$CH_3CH_2CH_2CH(CHO)$ (pentanal); $CH_3CH_2(CHO)$ (Ethanal)
5) Alkanol	$CH_3CH_2CH(OH)CH_3$ (Butanol); $CH_3CH(OH)CH_3$ (propanol)
6) Ether	$CH_3CH(O)CH_2CH_3$ (Ethoxyethane), $CH_3CH(O)CH_3$ (Ethoxy propane)
7) Amines	$CH_3CH_2CH_2CH(NH_2)CH_3$, Aminopentane, $CH_3CH(NH_2)CH_3$, Aminopropane