

OLADIPURO ABOLA NEWHALL

PHARMACY COLLEGE

CHEM 101

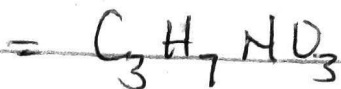
(7/10/2023) 023

M.H.S

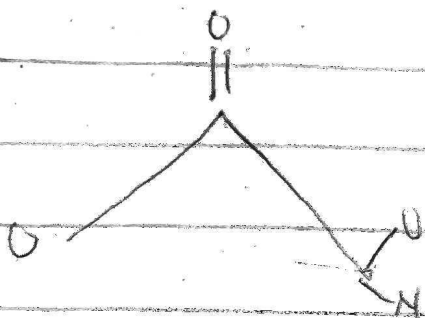
$$105 = (16 \times 3 + 4)$$

$$105 - 52 = 43$$

$$\frac{43}{12} = 3 \text{ remains } 7$$



$$IHD = \frac{2 \times 3 + 2 - 7 + 1}{2} = \frac{2}{2} = 1$$



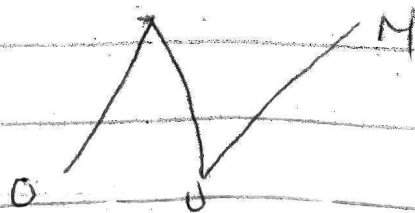
ii  $105 - (16 \times 2 + 14)$

$$105 - 46 = 59$$

$$\frac{59}{12} = 4 \text{ remains } 11$$



$$IHD = \frac{2 \times 4 + 2 - 11 + 1}{2} = 0$$



1b) They are used to make up human diet

i) They make up hydrocarbons.

ii) They are the basis of food.

iii) They are used in the production of nuclear acid.

iv) They are constituents of carbohydrates.

| Homocyclic   | Heterocyclic  |
|--|---|
| i. This compound have 100% Carbon atom in their ring   | This compound has carbon atom and either atoms like nitrogen, oxygen and sulphur in the ring. |
| ii. This compound ring contains only one type of atom. | This compound ring contains at least two different types of atoms include carbon.             |

2a  $R_f = \frac{\text{Distance of the band}}{\text{Distance moved by solvent front}}$

$$= \frac{2.4}{12.2}, \frac{5.6}{12.2}, \frac{8.9}{12.2}$$

$$= 0.20 \text{ cm}, 0.50 \text{ cm}, 0.73 \text{ cm}$$

- b. Aldehydes
- ii. Alkenes.

c. 2,4-Dinitrophenylhydrazine - Aldehydes / Ketones.

- di. Alcohol ( $\text{C}-\text{OH}$ ) e.g. Methanol and Ethanol
- ii. Alkane ( $\text{C}-\text{C}$ ) e.g. Methane and Butane.
- iii. Alkanoic acid ( $\text{C}-\text{C}(=\text{O})-\text{OH}$ ) e.g. Propanoic acid and Butanoic acid
- iv. Ketone ( $\text{C}-\text{C}(=\text{O})-\text{R}$ ) e.g. Acetone and Hexanone.
- v. Amine ( $\text{C}-\text{NH}_2$ ) e.g. Diphenylamine and Methylamine
- vi. Alkene ( $\text{C}=\text{C}$ ) e.g. Ethene and Butene
- vii. Alkyne ( $\text{C}\equiv\text{C}$ ) e.g. Ethyne and Propyne