

Name: Chidera Christogonus Ndubisi

Dept: Electrical and Electronics Engineering

Chem 102 Assignment

Matri
No: 19/EENG04/012

Stereochemistry and functional Group -73

- (1) $C_6H_5CH=CHCOCH_3$ \Rightarrow (1) Double bond chain (Alkene) (2) hydroxyl group (3) alkanol
(ii) $C_6H_5C(=O)NH_2$ \Rightarrow (1) Phenyl group (2) Amides (3) Ketone
(iii) $C_6H_5C=CHCH(OH)COCH_3$ \Rightarrow (1) Alkene (2) Hydroxyl group (3) alkanol

(2)

$$\text{Specific rotation} = \frac{\alpha}{l \cdot c} = \frac{d}{c \cdot l}$$

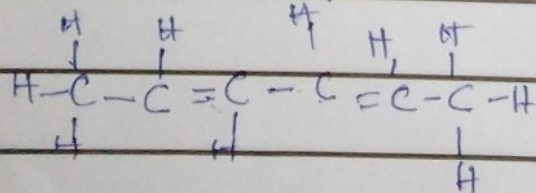
$$\therefore d = +1.0^\circ \quad l = 1.0 \text{ dm}$$

$$\therefore c = \frac{\text{Mass}}{\text{Volume}} = \frac{0.856 \text{ g}}{10 \text{ cm}^3} = 0.0856 \text{ g cm}^{-3} \quad l$$

$$\therefore \frac{\alpha}{l \cdot c} = \frac{d}{c \cdot l} = \frac{1.0}{0.0856 \times 1} = 11.68^\circ$$

(3)

(i) Hexa-2,4-diene



(ii) Dimethylbut-2-ene

