Amadi Chiburuoma Yvonne
19/MHS01/088
CHM 102

D) Name the functional groups present.

i) $CH_2=(COH)HCHO$ — Aldehyde (-CHO)
- Hydroxyl group (-OH)

ii) $C_6H_5CH(NH_2)COCH_3$ — Carbonyl group (-CO)
- Amine ($-NH_2$)

iii) $CH_3C=CHCH(COH)CHO$ — Aldehyde (-CHO)
- Hydroxyl grap (-OH)

2 Specific rotation = $\frac{\text{observed rotation (in degree)}}{\text{conc in g cm}^{-3} \times \text{path length (in dm)}}$

$$\text{conc. g/cm}^3 = \frac{0.856\text{g}}{10\text{ cm}^3}$$

$$= 0.0856\text{g/cm}^3$$

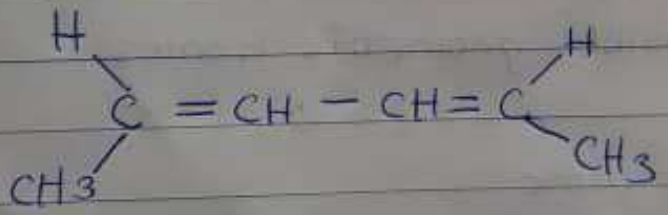
Observed rotation = +1.0°

path length of sample = 1 dm

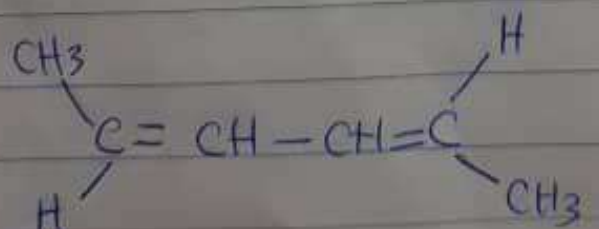
$$\text{specific rotation} = \frac{+1}{[0.085] \times 1}$$

$$= 11.68\ \text{g}^{-1}\text{cm}^3\text{dm}^{-1}$$

3) i Hexa-2-4 diene

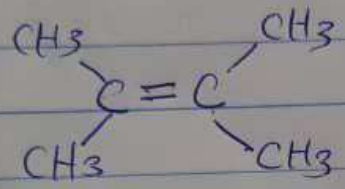


Cis Hexa-2,4-diene



Trans Hexa-2,4-diene.

ii) 2,3-dimethyl but-2-ene



Geometric isomerism is not possible 2,3-dimethyl but-2-ene.