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100MMTS01/026 MBBS

Chemistry Assignment

- 1) $\text{CH}_2=\text{C}(\text{OH})\text{CHO}$ → Aldehyde group ($\text{C}-\text{CHO}$), hydroxyl group ($\text{C}-\text{OH}$) and double bond.
- 2) $\text{C}_6\text{H}_5\text{CH}(\text{NET}_2)\text{COCH}_3$ → phenyl group, carbonyl group ($\text{C}-\text{CO}$) and amine group ($\text{N}(\text{Et}_2)$)
- 3) $\text{CH}_3\text{C}=\text{CHCH}(\text{COH})\text{CHO}$ → hydroxyl group ($\text{C}-\text{OH}$), aldehyde group ($\text{C}-\text{CHO}$) and double bond.

2) A 0.856g sample of pure $(2R,3R)$ -fumaric acid was diluted to 10 cm^3 with water and placed in a 1dm polarimeter tube. The observed rotation at 20°C was α at 1.0° . Calculate the specific rotation of $(2R,3R)$ -fumaric acid.

$$0.856 \text{ g to cm}^3 = 0.856 \text{ g}/10 \text{ cm}^3 = 0.0856 \text{ g/cm}^3$$

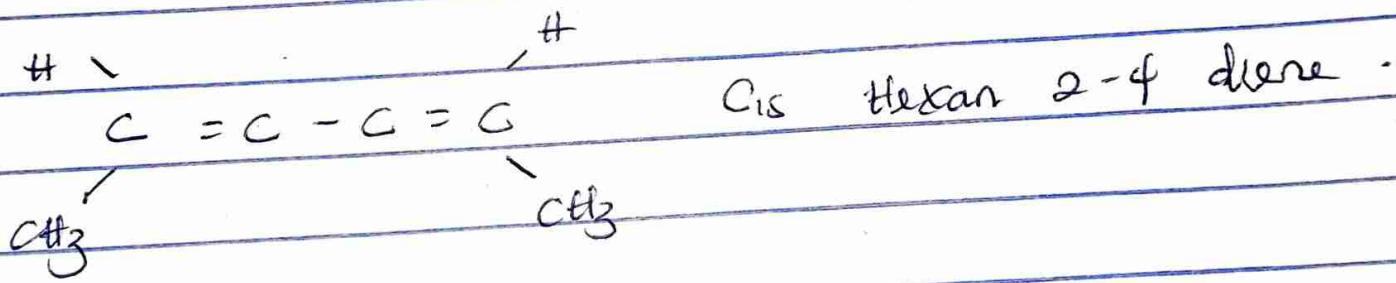
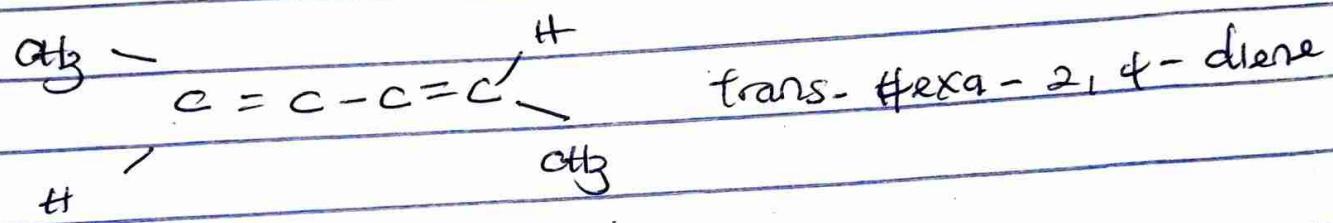
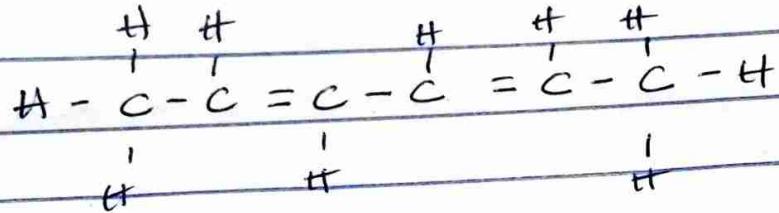
to find specific rotation = observed rotation (degrees) / conc path length of sample cells in dm

$$\frac{\alpha}{0.0856 \text{ g/cm}^3 (1 \text{ dm})} = 1$$

Specific rotation = $\frac{\alpha}{0.0856 \text{ g/cm}^3 (1 \text{ dm})}$

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

3) hexa - 2 - 4 diene .



2,3-Dimethylbut-2-ene

