

19/MHS01/424

CHE 102

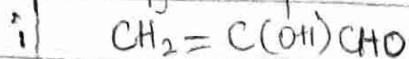
MBBS

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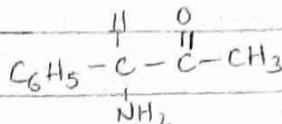
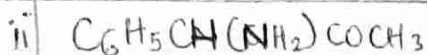
UNUANE-HENRY

OSEREMHEN C.

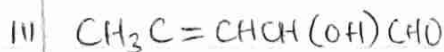
1 Identify the functional groups in



- Double bonds (in alkenes) (=)
- Hydroxyl group (OH)
- Carbonyl group (CHO)



- Amines ( $\text{NH}_2$ )
- Alkanal Carbonyl group ( $\text{C}=\text{O}$  in ketones)



- Double bonds (in alkenes) (=)
- Hydroxyl group (OH)
- Carbonyl group (CHO)

2

observed rotation =  $+1.0^\circ$

mass of acid = 0.856g

Diluted in solution of  $10\text{cm}^3$

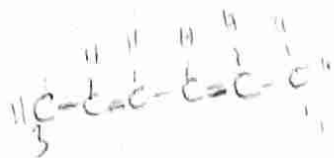
$$\therefore \text{mass concentration} = \frac{0.856\text{g}}{10\text{cm}^3} = 0.0856\text{gcm}^{-3}$$

Path length = 1dm

$$\text{Specific rotation} = \frac{\text{observed rotation}}{(\text{concentration in g/cm}^3) (\text{path length in dm})}$$

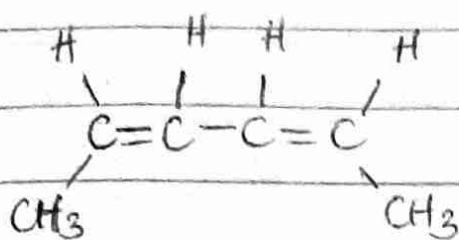
$$= \frac{+1^\circ}{(0.0856\text{g/cm}^3) \times (1\text{dm})}$$

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

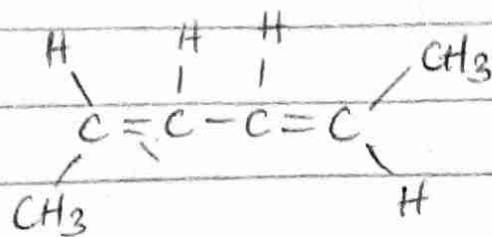


3. Geometric Isomers of

i Hexa-2,4-diene -  $\text{CH}_3 - \text{CH} = \text{CH} - \text{CH} = \text{CH} - \text{CH}_3$

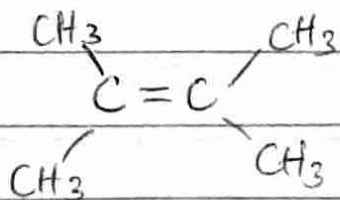


cis-Hexa-2,4-diene



trans-Hexa-2,4-diene

ii 2,3 dimethylbut-2-ene -  $\text{CH}_3 - \text{C}(\text{CH}_3) = \text{C}(\text{CH}_3) - \text{CH}_3$



Due to the structure of the compound and the presence of 4 methyl groups that are the same, geometric isomerism cannot occur.