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MEDICINE AND SURGERY
19/MHS01/130

1. Name the functional groups present in each of the following molecule

i $CH_2=C[OH]HCHO$
Functional grap = Aldehyde, Alcohol and Alkene

ii $C_6H_5CH[NH_2]COCH_3$
Functional group = Amide

iii $CH_3C=CHCH[OH]CHO$
Functional group = Aldehyde, Alcohol and Alkene

2. Specific rotation = observed rotation [in degree]
path length of sample cell in dm [Conc, gm^{-3}]

Conc, g/cm^3 = $\frac{0.856g}{10cm^3}$

$= 0.0856 g/cm^3$

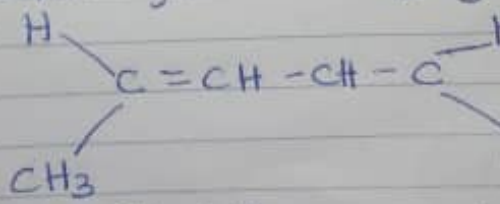
observed rotation = ~~0.116~~ $+1.0^\circ$

path length of sample = 1dm

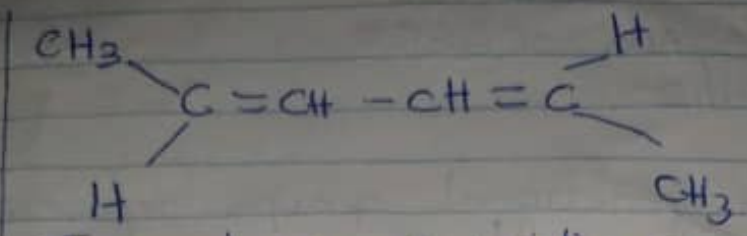
∴ Specific rotation = $\frac{+1}{[0.0856][1]}$

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

3 (i) Hexa-2,4-diene $[CH_3-CH=CH-CH=CH-CH_3]$

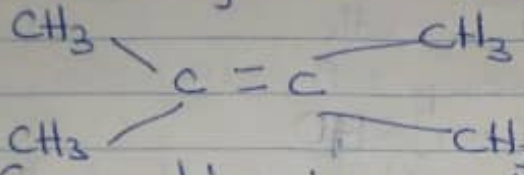


Cis Hexa-2,4-diene



Trans hexa-2,4-diene

ii 2,3-dimethyl but-2-ene ($CH_3-C[CH_3]=C[CH_3]CH_3$)



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