OBASEKI PRECIOUS
NURSING
19/MHS02/082

1. Name the functional group present in each of the following molecules

i. $CH_2=C[OH]HCHO$

functional group: Aldehyde, Alcohol and Alkene

ii. $C_6H_5CH[NH_2]COCH_3$

Functional goup: Amide.

iii. $CH_3C=CHCH[OH]CHO$

Functional group: Aldehyde, Alcohol and Alkene

2. Calculate the specific rotation of (2R, 3R)-tartaric acid.

Soln.

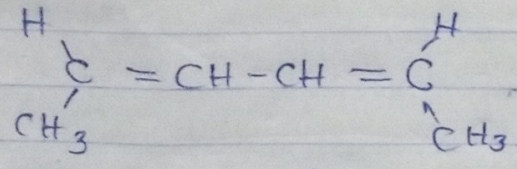
$$\text{Specific Rotation} = \frac{\text{Observed rotation (degrees)}}{(\text{Concentration g/cm}^3) \times \text{path length of Simple Cell}}$$

$$\text{Specific rotation} = \frac{1}{0.856 g/100cm^3 \times 1}$$

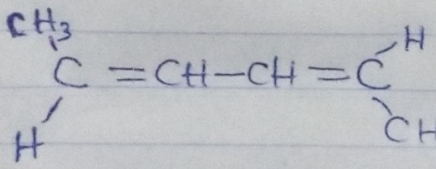
$$= 11.7 g^{-1} cm^3 dm^{-1}$$

3. Draw the possible geometric isomers (where possible)

i. Hexa-2,4-diene. $[CH_3CH=CH-CH=CH-CH_3]$

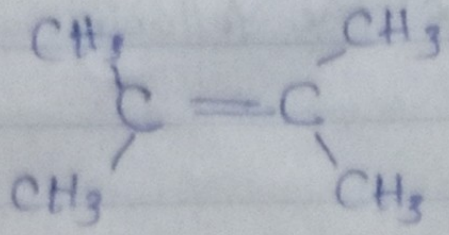


Cis Hexa-2,4-diene



Trans Hexa-2,4-diene.

2, 3- Dimethylbut-2-ene [$CH_3C(CH_3)=C(CH_3)CH_3$]



Geometric isomerism is not possible in 2, 3 Dimethylbut-2-ene