AKINAJIYE FERANMI DAVID

ANATOMY

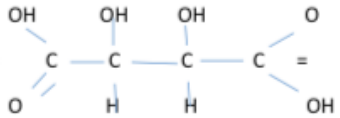
19/MHS03/001

STEREOCHEMISTRY AND FUNCTIONAL GROUPS.

1. Name the functional groups present in each of the following molecules
   i) $CH_2C(OH)HCHO$--------- Formyl group (aldehyde) group(CHO), Hydroxyl group(OH), Alkene group
   ii) $C_6H_5CH(NH_2)COCH_3$-------- Amines, carbonyl group, aromatic
   iii) $CH_3C{=}CHCH(OH)CHO$---------- Alkene, hydroxyl group, aldehyde group.

2. Concentration (mol/dm³)= $\frac{\text{conc. (g/dm}^3)}{\text{molar mass (g/mol)}}$

$[\alpha]^T_l = \frac{\alpha}{C.L}$

Tartaric acid=  $C_4H_6O_6$

Molar mass = 150 g/mol

0.856g----------10cm³

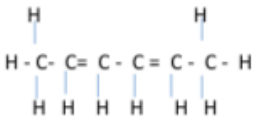
Xg----------1000cm³

$\frac{0.856 \times 1000}{10} = 85.6 g/dm^3$

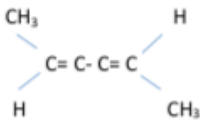
Concentration in g/cm³ = $\frac{\text{concentration in (g/dm}^3)}{1000}$

$= \frac{85.6}{1000} = 0.0856 g/cm^3$

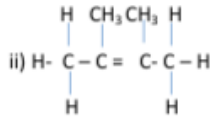
$[\alpha]^T_l = \frac{\alpha}{C.L} = \frac{4.10°}{0.0856} = 11.68°$

3i)  Hexa-2,4-diene

Cis-



Trans-

ii) 

2-3 dimethylbut-2-ene

No geometric isomer