Udofia, Medara Ime

19/MHS11/139

Pharmacy

CHM 102

1&2.

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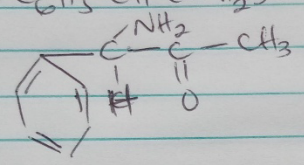
1. a) $CH_2 = C(OH)HCHO$

Functional group present:

- Double bond chain (Alkene)
- OH (Hydroxyl group)
- $C{=}O$ (Alkanol)
  H

b) $C_6H_5CH(NH_2)COCH_3$



Functional group present:

- phenol group with double bonds
- Amine (NH_2)
- Alkanone / Ketone $C{=}O$ R

c) $CH_3C{=}CHCH(OH)CHO$

Functional group present

- Double bond (=)
- $C{=}O$ Alkanol
  H
- OH Hydroxyl group.

2). mass of tartratic acid = 0.856g

vol. of water diluted in = $10cm^3$

Recall,

Mass conc. (c) = $\frac{Mass}{vol} = \frac{0.856g}{10cm^3}$

$= 0.0856g/cm^3$

Vol. of polarimeter tube = $1dm^3$

∴ length of tube = 1dm

Observed rotation (α) = +1.0° at 20°c

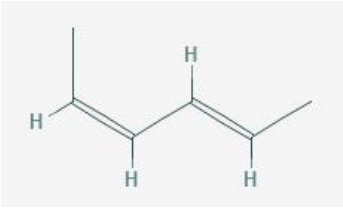
Specific rotation $[\alpha]$ = ?

$[\alpha] = \frac{\alpha}{c \times l}$

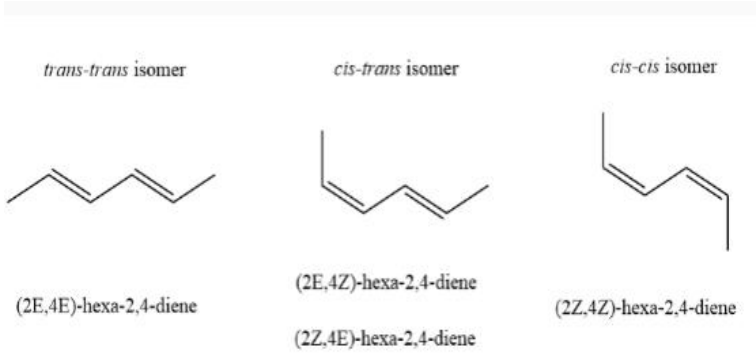
$= \frac{+1.0°}{0.0856gcm^{-3} \times 1dm}$

$[\alpha] = \frac{+1}{0.0856} = +11.6822°$

3. Hexa-2,4-diene – has only 3 isomers



Isomers



B. 2,3 dimethy but-2-ene. - does not have geometric isomers because there are two identical groups attached to the same carbon of the double bond.