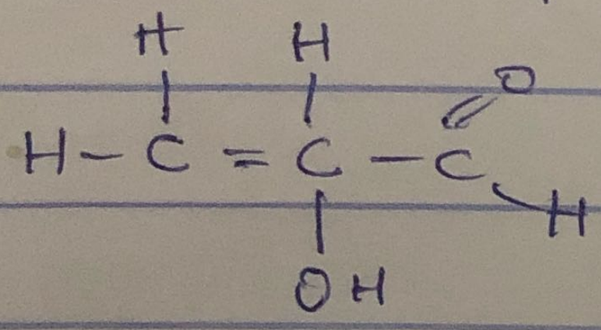
Ishaya Swadchet Comfort
19/mhs01/208
MBBS.
CtHM 102.

1. i, $CH_2=C(OH)HCHO$.

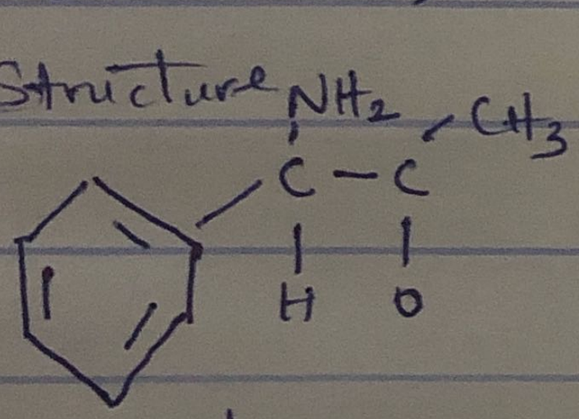
The structural formular:



functional group present
- Double bond chain(Alkane)
- OH (hydroxyl group)
- $-\overset{\overset{O}{\|}}{C}_{H}$ (alkanol)

ii, $C_6H_5CH(NH_2)COCH_3$

Structure



functional group present
- Phenoyl group(C_6H_5) with double bonds
- Amine
- Alkanone/Ketone ($\overset{\overset{O}{\|}}{C}-R$)

iii $CH_3C=CHCH(OH)^{O}CHO$

Structure

functional group present
- Alkene (C=C)
- Hydroxyl group(OH)
- Alkanol ($C^{=O}_{-H}$)

2. Recall; $[\alpha]_{\lambda}^{T} = \frac{\alpha}{l \times c}$

where l = length of Path = 1dm

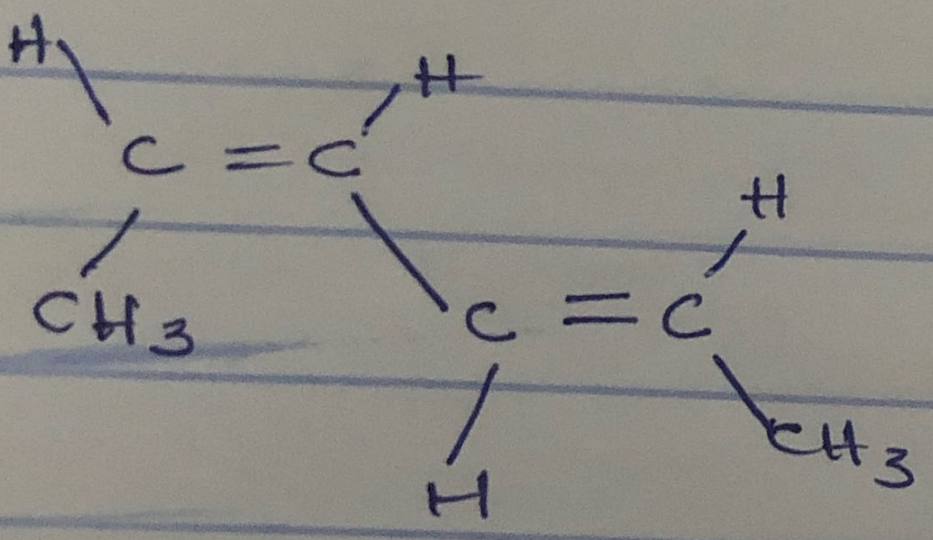
α = observed rotation = 1°

$C = \frac{\text{mass}}{\text{volume}} = \frac{0.856}{10} = 0.0856 g/ml$

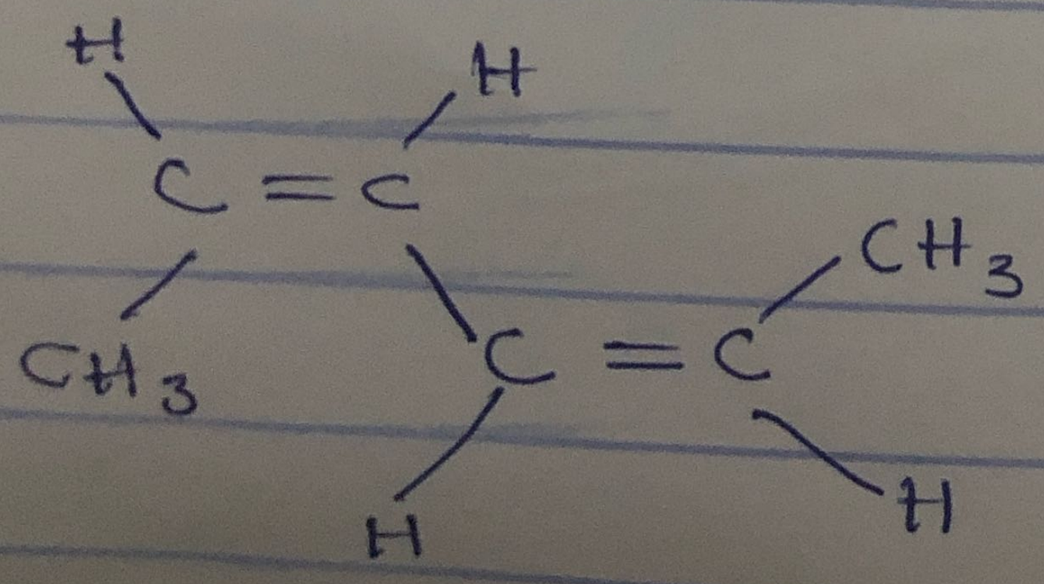
$\alpha_{\lambda}^{T} = \frac{1}{0.0856 \times 1}$

$\alpha_{\lambda}^{T} = 11.682°$

3a. Hexa-2,4-diene

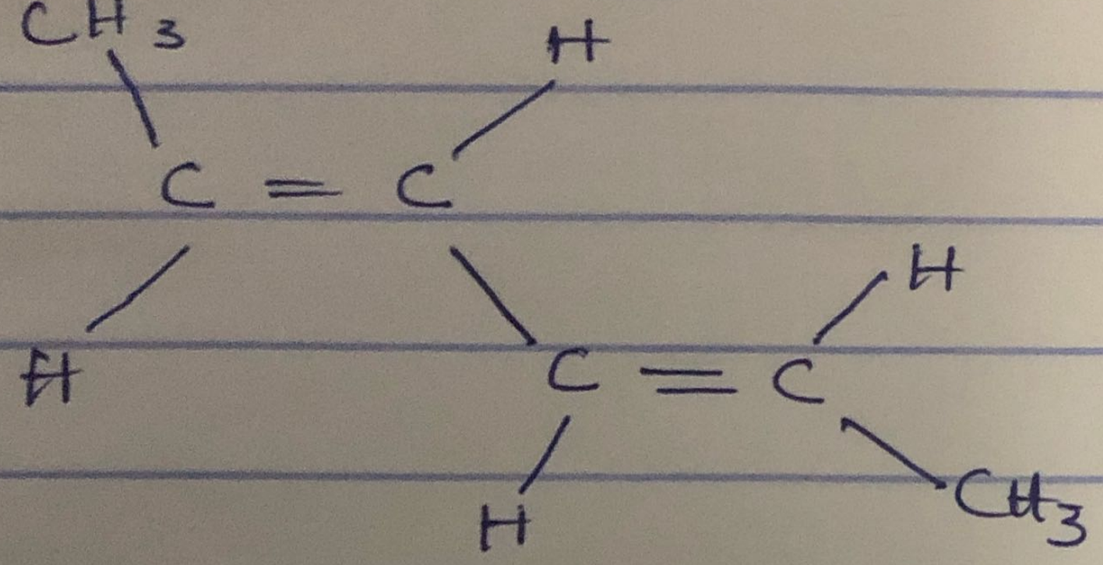


i. Cis, trans-hexa-2,4-diene

ii. 

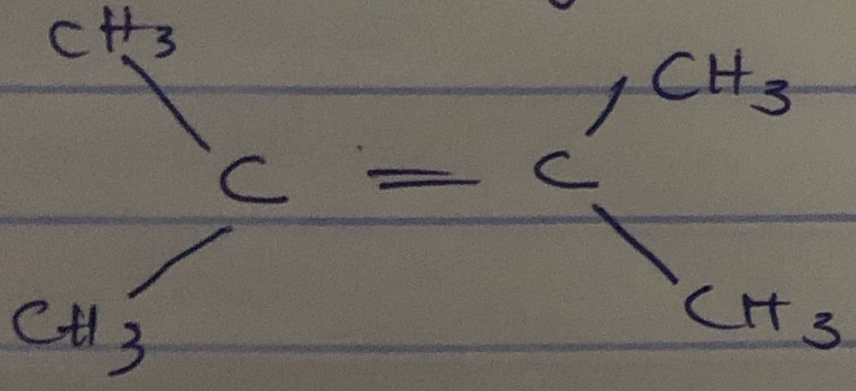
Cis, cis-hexa-2,4-diene

iii.



trans, trans-hexa-2, 4-diene.

b. 2, 3-dimethyl but-2-ene



This compound has no geometric isomers because there are two identical groups attached to the same carbon atom of the double bond.