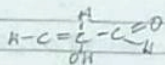
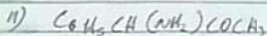


structural formula

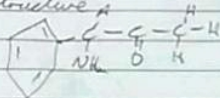


functional groups present are

- Double bond chain = (Alkene)
- OH (alcohol) (hydroxyl group)
- $\text{C}=\text{O}$ (aldehyde)

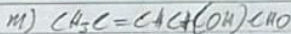


structure

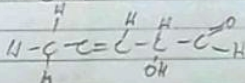


functional group present

- Phenyl group (C_6H_5) with double bonds
- Amide
- Alkane (ketone)



structure



functional group

- Alkene ($\text{C}=\text{C}$)
- Hydroxyl group (OH)
- Aldehyde ($\text{C}=\text{O}$)

2) Recall:

$$[\alpha]_D^{25} = \frac{\alpha}{l \times c}$$

where

l = length of sample tube

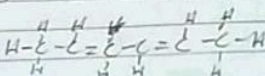
c = $\frac{\text{mass}}{\text{volume}}$ (g/ml) or (g/mol)

α = observed rotation

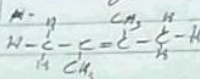
$$S_D = \frac{1.0}{1 \times \left(\frac{10}{10}\right)}$$

$$S_D = \frac{1}{0.02856} = 11.68$$

3) ~~Hex-2,4-diene~~



ii) 2,3-dimethylbut-2-ene



or

