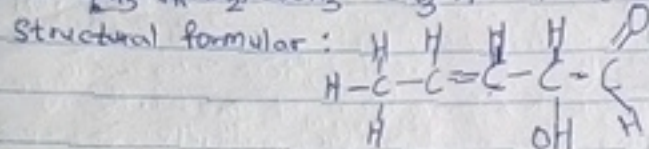
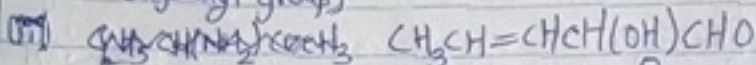


Functional groups present are:

- double bond chain (Alkene)

- (Alkanal)

- OH (hydroxyl group)

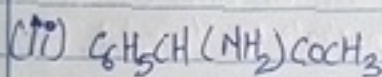


Functional group present

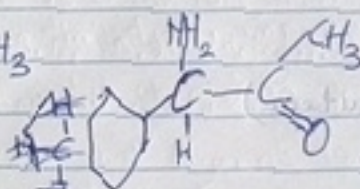
- alkene ($\text{C}=\text{C}$)

- hydroxyl group (OH)

- alkanal ()



Structural formula



Functional group present are:-

- Amine

- Alkanone / ketone ($\text{C}=\text{O}-\text{R}$)

- phenyl group (C_6H_5) with double bonds.

2. Recall that:
$$[\alpha]_D^{25} = \frac{\alpha}{l \times c}$$

where l = length of sample

$$c = \frac{\text{mass}}{\text{Volume}} \quad (\text{g/dm}^3) \quad \text{or} \quad (\text{g/mol})$$

α = Observed rotation

$$S_r = 1.0$$

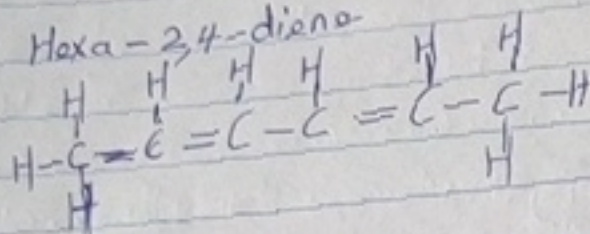
$$1.0 \times \left(\frac{0.856}{10} \right)$$

$$S_r = 1$$

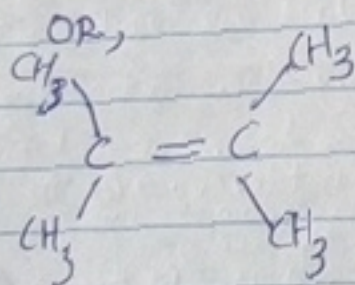
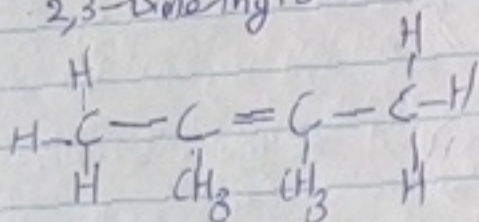
$$0.0856$$

$$S_r = 11.68$$

3 (i) Hexa-2,4-diene



(ii) 2,3-Dimethylbut-2-ene



(Neobutene)