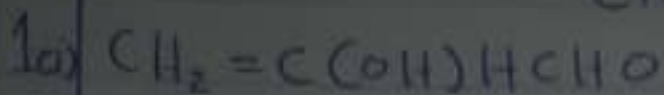
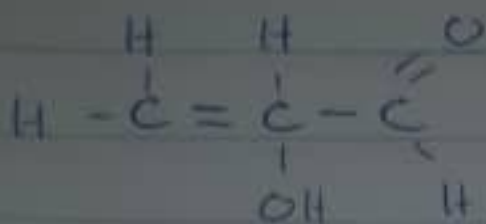


# CHM 102



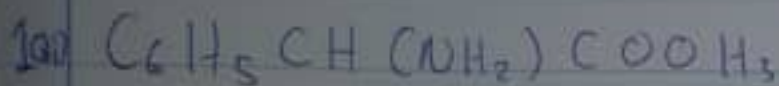
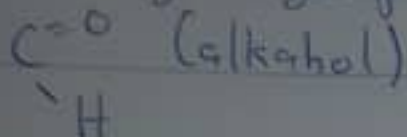
The structural formula



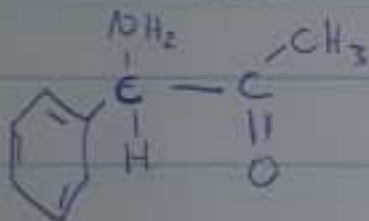
functional group present are:

Double bond chain = Alkene

OH (hydroxyl group)

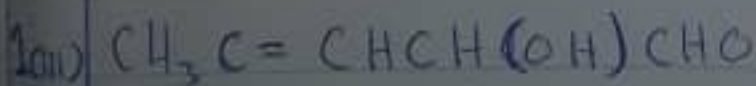


Structure

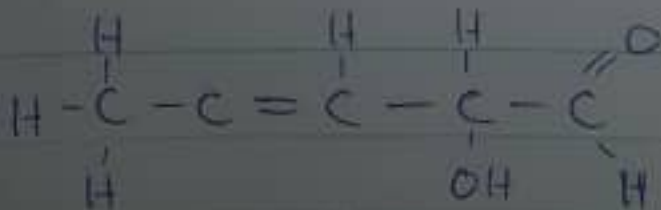


functional group present

- Phenyl group ( $\text{C}_6\text{H}_5$ ) with double bonds
- Amine
- Alkane / ketone  $\left( \begin{array}{c} \text{C} - \text{R} \\ || \\ \text{O} \end{array} \right)$



Structure



functional group present

- Alkene ( $\text{C} = \text{C}$ )
- Hydroxyl group (OH)
- Alkenal ( $\begin{array}{c} \text{C}=\text{O} \\ | \\ \text{H} \end{array}$ )

2. Recall

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

Where:

$l$  = Length of sample tube

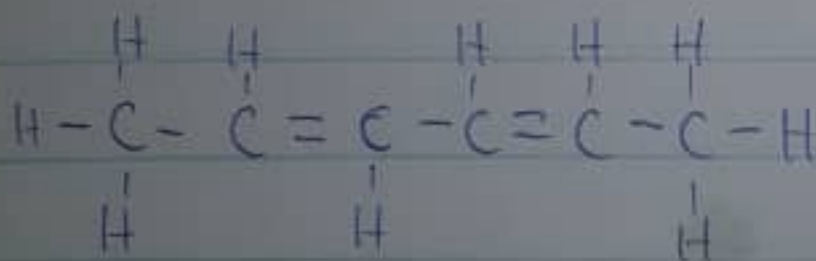
$c$  =  $\frac{\text{Mass}}{\text{Volume}}$  ( $\text{g/cm}^3$ ) or ( $\text{g/mol}$ )

$\alpha$  = observed rotation

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

$$S_r = \frac{1}{0.0856} = 11.68$$

3(i) Hexa-2,4-diene



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

