

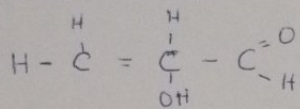
AGU EMMANUELLA CHIAMAKA

MEDICINE AND SURGERY

19/MHS01/059

CHEMISTRY 102

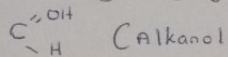
(i) $\text{CH}_2 = \text{C}(\text{OH})\text{HCHO}$



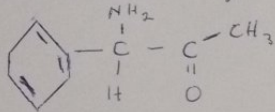
Functional Group present

- Double bond chain = (Alkene)

- OH (hydroxyl group)



(ii) $\text{C}_6\text{H}_5\text{CH}(\text{NH}_2)\text{COCH}_3$



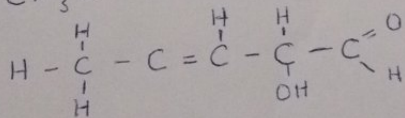
Functional Group present

- Phenyl group (C_6H_5) with double bonds

- Amine

- Alkanone / ketone ($\begin{array}{c} \text{C} - \text{R} \\ || \\ \text{O} \end{array}$)

(iii) $\text{CH}_3\text{C} = \text{CHCH}(\text{OH})\text{CHO}$



Functional Group present

Alkene ($\text{C} = \text{C}$)

Hydroxyl group (OH)

Alkanol ($\begin{array}{c} \text{C} \\ | \\ \text{H} \end{array}$)

(2) Recall; $[\alpha]_D^{25} = \frac{\alpha}{L \times C}$

Where L = length of sample

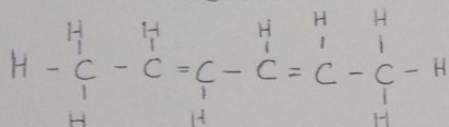
$$C = \frac{\text{mass}}{\text{Volume}} \text{ (g/dm}^3\text{) or (g/mol)}$$

α = Observed rotation

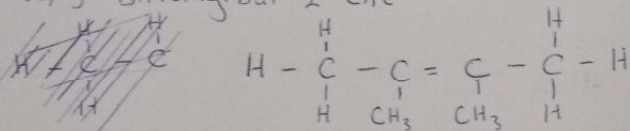
$$S_r = \frac{1.0}{1.0 \times \left(\frac{0.856}{10}\right)}$$

$$S_r = \frac{1.0}{0.0856} = 11.68$$

(3i) Hexa-2-4diene



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



OR

