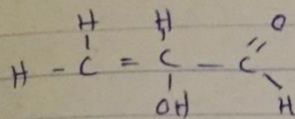


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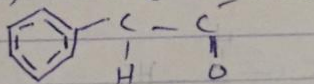
(i)  $\text{CH}_2 = \text{C}(\text{OH})\text{HCHO}$ .  
 The Structural Formula:



Functional Present are;

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

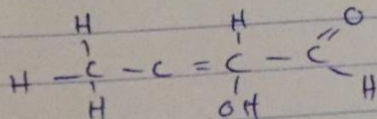
(ii)  $(\text{C}_6\text{H}_5)(\text{H})(\text{NH}_2)(\text{COCH}_3)$   
 Structure;



Functional Present

- Phenyl group ( $\text{C}_6\text{H}_5$ ) with double bonds
- Amine
- Alkanone / ketone ( $\text{C}^{\text{O}}-\text{R}$ )

(iii)  $\text{CH}_3\text{C}(\text{H})\text{CH}(\text{OH})\text{CHO}$   
 Structure:



Functional Present

- alkene ( $\text{C}=\text{C}$ )
- Hydroxyl group ( $\text{OH}$ )
- Alcohol ( $\text{C}^{\text{O}}-\text{H}$ )

2) Recall; 
$$[\alpha]_D = \frac{\alpha}{l \times c}$$

where

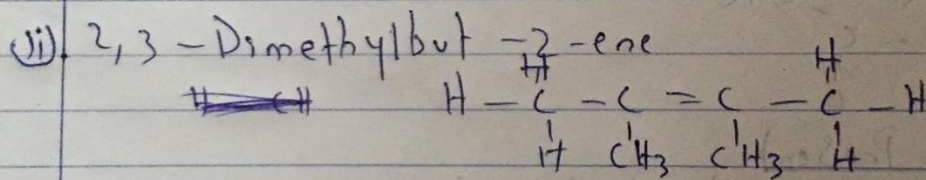
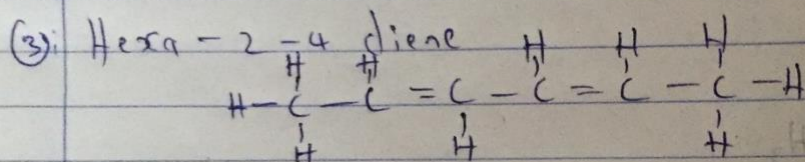
$l$  = ~~length~~ length of sample tube.

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

$\alpha$  = Observed rotation.

$$S_r = \frac{1.0}{1.0 \times \left(\frac{0.856}{18}\right)}$$

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



OR

