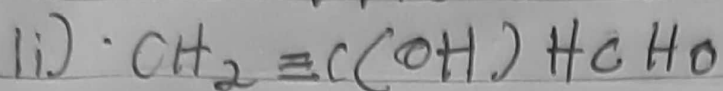


NAME: HARRY DOMINION BATEYIM

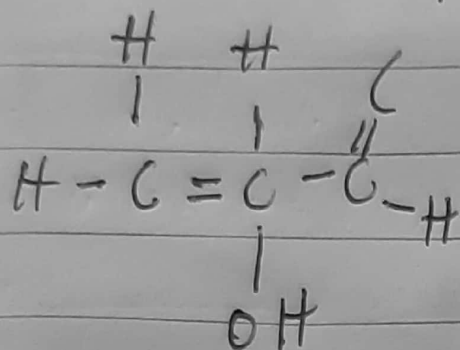
COURSE: CHEM 102

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MECHANICAL ENG



The structural formula

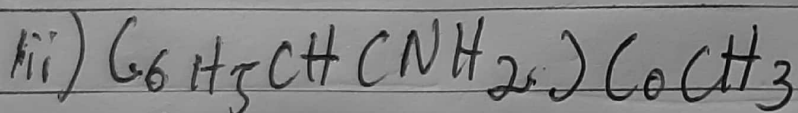


Functional present are,

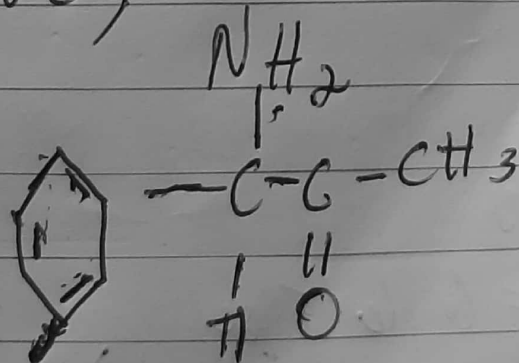
1) Double bond chain = (Alkene)

2) OH (hydroxyl group)

3)  $\text{C}^{\text{=O}}$  (aldehyde)



Structure;



Functional present

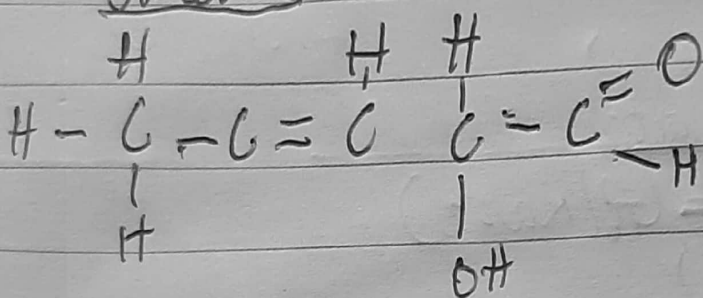
1) Phenyl group ( $\text{C}_6\text{H}_5$ ) with double bonds

2) Amine

3) Alkane / Ketone  $\begin{pmatrix} C-R \\ || \\ O \end{pmatrix}$

(iii)  $CH_3C=CHCH(OH)CHO$

Structure



Functions Present

1) Alkene ( $C=C$ )

2) Hydroxyl group ( $OH$ )

3) Alkane ( $C-H$ )

2) Recall

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

Where  $l$  = length of tube / Fuse

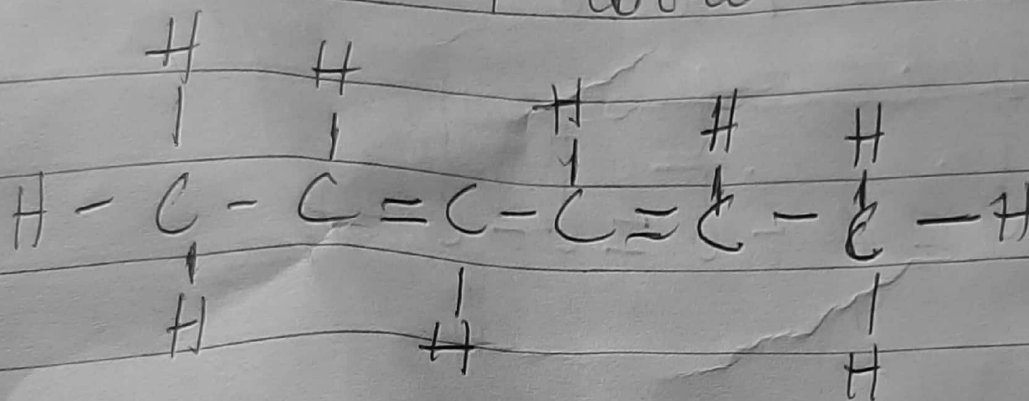
$c$  =  $\frac{\text{mass}}{\text{volume}}$  ( $g/cm^3$ ) or ( $g/mol$ )

$\alpha$  = observed rotation

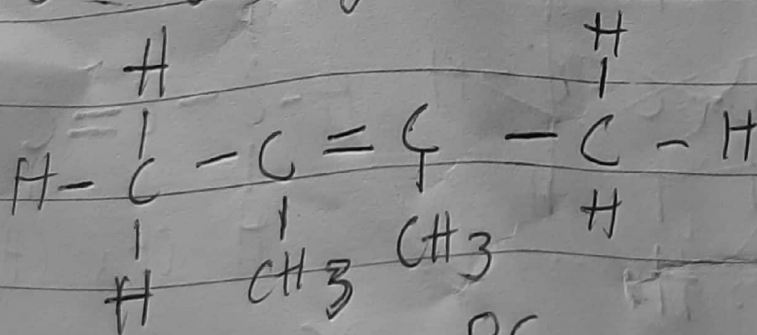
$$S_r = \frac{1.0}{1.0 \times \left( \frac{0.856}{4} \right)}$$

$$S_r = \frac{1}{0.856} = 11.68$$

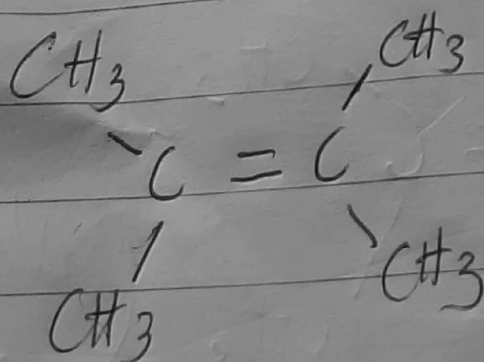
3) Hexa - 2 - 4 diene



3ii) 2, 3 - Dimethyl but - 2 - ene



or



(Neo - butane)