NAME: DANIEL DAMILOLA FAVOUR
MATRIC NO: 19/MHS01/133
DEPARTMENT: MEDICINE AND SURGERY
COURSE: CHM 102 (ASSIGNMENT ON STEREOCHEMISTRY AND FUNCTIONAL GROUPS

ANSWERS

1i; $CH_2=C(OH)HCHO$

Functional group present are: a, Double bond chain = (Alkene)
b, OH (hydroxyl group)
c, $C(=O)H$ (alkanol)

ii; $C_6H_5CH(NH_2)COCH_3$

Functional group present are: a, phenoyl group (C_6H_5) with double bonds
b, Amine
c, Alkanone/ketone $\left(\begin{matrix}C-R\\ \|\\ O\end{matrix}\right)$

iii; $CH_3C=CHCH(OH)CHO$

Functional groups present are: a, Alkene (C=C)
b, Hydroxyl group (OH)
c, Alkanol $\left(\begin{matrix}C=O\\ |\\ H\end{matrix}\right)$

2. Recall:

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

where l = length of sample

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

α = observed rotation

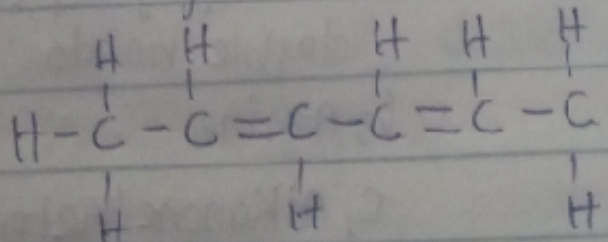
~~Bra~~

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

$$Sr = \frac{1}{0.0856} = 11.68_{11}$$

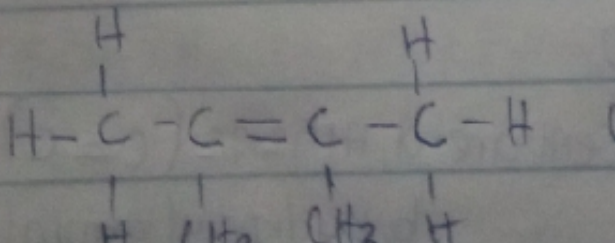
3. Possible geometric isomers

i,

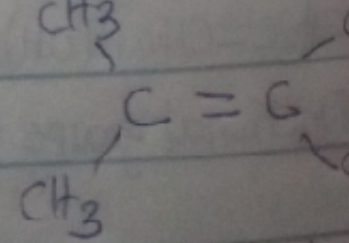


= Hexa-2-4 diene

ii,



OR



2,3-Dimethylbut-2-ene

(Neo-butane)