DATE - 14/11/2020
Matric no - 19/SCI07/006
Topic - CHM 102 Assignment
NAME - ILORI KOLAWOLE ADESHINA
DEPT - AGRICULTURAL SCIENCE

1) Name the functional groups present in each of the following molecules

i) $CH_2=C(OH)-HCHO$
functional group - Alkene (double bond chain)
- OH (hydroxyl group)
- CHO (Aldehyde)

ii) $C_6H_5CH(CNH_2)COCH_3$
functional group - phenol group
Amine
Alkanone / ketone

iii) $CH_3\ C=CHCH(OH)CHO$
functional group: Alkene
Hydroxyl / OH
Alkanal

2) Recall

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

where

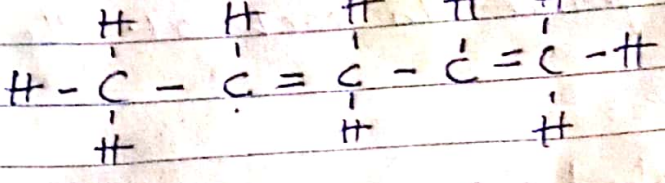
l = length of sample pure
$c = \frac{\text{mass}}{\text{volume}}$ (g/cm^3) or (g/mol)
α = observed rotation

$$S_1 = \frac{1.0}{10 \times \left(\frac{0.85}{1.0}\right)}$$

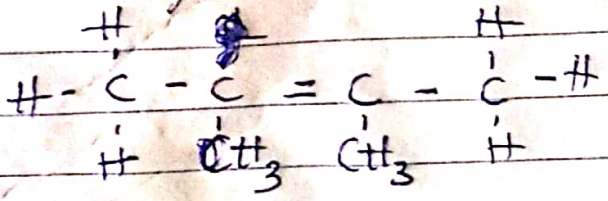
$$S_1 = \frac{1}{0.0856} = 11.68$$

3) Draw the possible geometric isomers (wherever possible) of the following compounds:

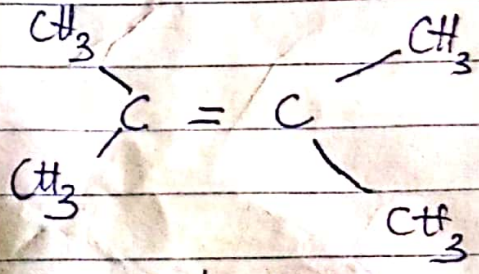
1) Hexa-2,4-diene



2) 2,3-dimethylbut-2-ene



OR



Neo butane