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DEPARTMENT: MBBS
MATRIC NO: 19/MHS01/241
SUBJECT: CHM 102.

1) i) $CH_2=C(OH)HCHO$ - Carboxyl group

ii) $C_6H_5CH(NH_2)COCH_3$ - Amines

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

2) Observed rotation = $+1.0°$

Concentration in $g/cm^3 = \frac{0.856}{10} = 0.0856\ g/cm^3$

Path length of sample cell in dm = 1 dm

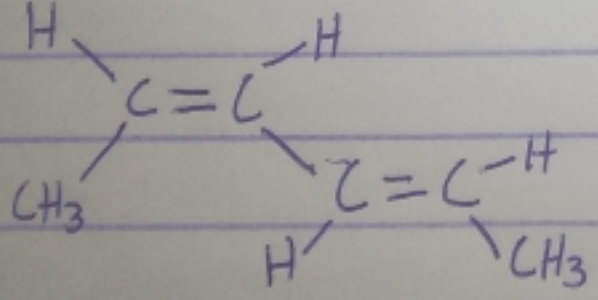
$\therefore$ Specific rotation of Sample = $\frac{\text{Observed rotation}}{(\text{concentration in } g/cm^3) \times (\text{Path length of Sample cell in dm})}$

$= \frac{1}{0.0856 \times 1} = \frac{1}{0.0856}$

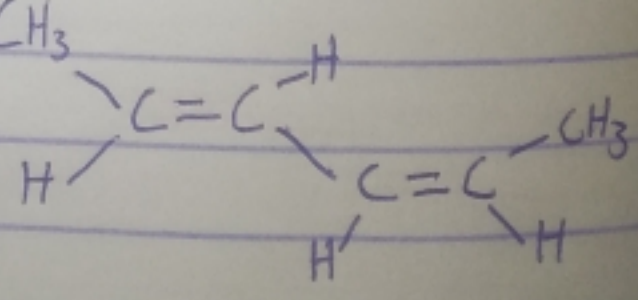
$= 11.68° g^{-1} cm^3 dm^{-1}$

3) A) Isomers of Hexa-2,4-diene

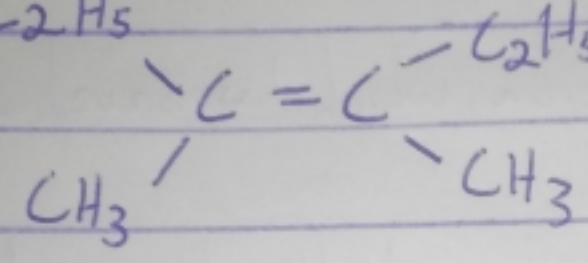
1)



2)



B) Geometric Isomers of 2,3-dimethylbut-2-ene

1) 

2)