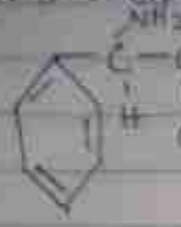
OBELEYE HANNAH ADEWUNMI
19/MHS11/095 PHARMACY CHM 102

a) $CH_2=C(OH)HCHO$

Functional group present: Double bond chain (Alkene)
OH (Hydroxyl group)
$C(=O)H$ (Alkanol)

b) $C_6H_5CH(NH_2)COCH_3$



Functional group present: Phenol group with double bonds
Amine (NH_2)
Alkanone / Ketone $C(=O)R$

c) $CH_2C=CHCH(OH)CHO$

Functional group present: Double bond (=)
$C(=O)H$ Alkanol
OH Hydroxyl group

2) Mass of tartaric acid = 0.856g
Vol. of water diluted in = $10cm^3$
Recall, Mass conc. (c) = $\frac{\text{mass}}{\text{vol}} = \frac{0.856g}{10cm^3} = 0.0856g/cm^3$
Vol. of Polarimeter tube = $1dm^3$
∴ Length of tube = 1dm
Observed rotation (α) = $+1.0°$ at $20°C$
Specific rotation $[\alpha]$ = ?

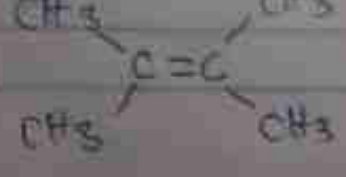
$[\alpha] = \frac{\alpha}{c \times l} = \frac{+1.0°}{0.0856 gcm^{-3} \times 1dm}$

$[\alpha] = \frac{+1}{0.0856} = +11.6822° g^{-1}cm^3dm^{-1}$

9a)

trans-hexa-2,4-diene

9b)



2,3-dimethyl but-2-ene