**NAME**: Molokwu Valerie Odirachukwumma R.C

**MATRIC NO.:** 19/ENG05/038

**DEPT./COLLEGE:** Mechatronics Engineering.

**COURSE:** CHM 102

 **ASSIGNMENT.**

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

(i) CH2=C(OH)HCHO. **ANS=** Functional group – Alkene (double bond)

 -OH (hydroxyl group)

 - CHO (Aldehydes)

(ii) C6H5CH(NH2) COCH3  **ANS**= Functional group – Ketone

(iii) CH3C=CHCH(OH)CHO. **ANS=** Functional group – Alkene

 - Aldehyde (CHO)

2. A 0.856 g sample of pure (2R, 3R)-tatrtaric acid was diluted to 10cm3 with water and placed in a 1.0 dm polarimeter tube. the observed rotation at 200 C was +1.00. Calculate the specific rotation of (2R, 3R)-tatrtaric acid.

 Recall,$\left[α\right]\_{A}^{T}$ = $\frac{α}{IxC}$

Where, l = length

 C= $mass÷volume\frac{g}{mol}$

 S1 = $\frac{1⋅0}{10}x\left(\frac{0⋅8}{1⋅0}\right)$

 = 11.68

3. Draw the possible geometric isomers (where possible) for each of the following compounds:

(i) $Hexa-2,4-diene$ **ANS=** 

(ii) 2,3-Dimethylbut-2-ene **ANS=**

