**NAME: IGBAFE MAGDALENE AGUMELE**

**MATRIC NUMBER: 19/MHS03/005**

**DEPARTMENT: ANATOMY**

**COURSE CODE: CHM102**

1. Name the functional groups present in each of the following molecules
2. **CH2=C(OH)HCHO:**
* Alkene group (Double bond chain)
* Aldehyde group (-CHO)
* Hydroxyl group (-OH)
1. **C6H5CH(NH2)COCH3:**
* Phenyl group (C6H5)
* Amine group (NH2)
* Carbonyl group
1. **CH3C=CHCH(OH)CHO**
* Alkene group (Double bond chain)
* Hydroxyl group (OH)
* Aldehyde group (-CHO)
1. Concentration (mol/dm3)= conc. (g/dm3)

 molar mass (g/mol)

 [α]TI = α

C.L

Tartaric acid = C4H6O6

Molar mass = 150 g/mol

0.856g-----------------------10cm3

Xg-----------------------------1000cm3

0.856 x 1000 = 85.6g/dm3

 10

Concentration in g/cm3 = concentration in (g/dm3)

 1000

 = 85.6= 0.0856g/cm3

 1000

 [α]TI = α/C.L = +.10°/0.0856 X 1 = 11.68°

  **Hexa-2,4-diene**

 H H

**3i)** H - C- C= C - C = C - C - H

 H H H H H H

  **CIS -** **TRANS-**

 CH3 CH3 CH3 H

 C= C- C= C C= C- C= C

 H H H CH3

ii) H CH3 CH3 H CH3 CH3

 H- C – C = C- C – H C= C

 H H CH3 CH3

 **2-3 dimethylbut-2-ene**

 No geometric isomer