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**COLLEGE: MHS**

**DEPARTMENT: NURSING**

**COURSE: CHM102**

**MATRIC NO: 19/MHS02/094**

**ASSIGNMENT**

1. Name the functional group present in each of the following molecules.
2. CH₂=C(OH)HCHO
3. C6H5CH(NH2)COCH3
4. CH3C=CHCH(OH)CHO

**ANSWER**

1. ITS FUCTIONAL GROUP INCLUDES:
* ALDEHYDE
* ALKANOL
* ALKENE
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* AMIDES
* KETONES
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* ALKENE
* ALKANOL
* ALDEHYDE
1. A 0.856g sample of pure (2R, 3R) - tartaric acid was diluted to 10cm3 with water and placed in a 1.0dm polarimeter tube. The observed rotation at 200C was +1.00, Calculate the specific rotation of (2R, 3R) – tartaric acid.

**ANSWER**

OBSERVED ROTATION= 1.00

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

LENGTH OF SAMPLE CELL= 1.0dm

SPECIFIC ROTATION=$\frac{Observed rotation in degrees}{conentration\*length of cell sample}$=$\frac{1}{0.0856\*1}$= 11.680g-1dm-1

1. Draw the possible geometric isomers where possible for each of the following compunds.
2. Hexa-2, 4-diene

**ANSWER**

CH3

CH3  H

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 C=CH-CH=C

 / \

H CH3

**Trans Hexa -2, 4- diene**

CH3  CH3

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 C=CH-CH=C

 / \

 H H

**Cis Hexa -2, 4- diene**

1. 2, 3- Dimethyl but-2-ene

**ANSWER**

**GEOMETRIC ISOMER ISN’T POSSIBLE FOR 2, 3- DIMETHL BUT-2-ENE**