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**COURSE CODE: CHM 102**

**COURSE TITLE: GENERAL CHEMISTRY**

**MATRIC NO: 19/ENG02/040**

**QUESTION**

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

(i)CH2=C(OH)HCHO

(ii)C6H5CH(NH2) COCH3

(iii) CH3C=CHCH(OH)CHO

A 0.856g of pure (2R, 3R)-tartaric 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)-tartaric acid.

1. Draw the possible geometric isomers (where possible) for each of the following compounds:
2. Hexa-2,4-diene
3. 2,3-Dimethylbut-2-ene

**SOLUTION**

1. a) CH2=C(OH)HCHO = Aldehyde

b) C6H5CH(NH2) COCH3= Ketone

c) CH3C=CHCH(OH)CHO = Alcohol

1. specific rotation =

observed rotation =1.0

temperature =20c

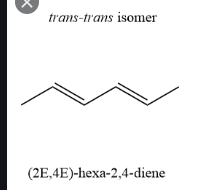
concentration=0.0856g/ml

path length=1.0dm

specific rotation=

specific rotation= 11.68

1. a) Hexa-2,4-dien



b) 2,3-Dimethylbut-2-ene

