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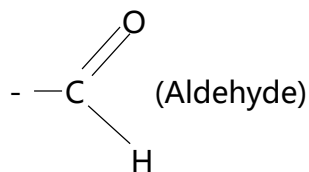
Department: Mechatronics Engineering

Matric no: 19/ENG05/035

Course code: CHM 102

Assignment for 17/05/2020

1.)i.) – Double bond (Alkene)



- Hydroxy group (Alkanol)

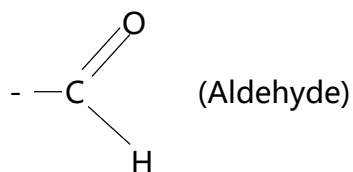
ii.) – Single bond chain (Alkane)

- NH₂ (Amine)

- C=O (Ketone)

iii.) –Double bond (Alkene)

-Hydroxy group (Alkanol)

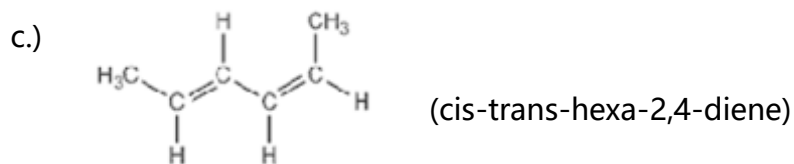
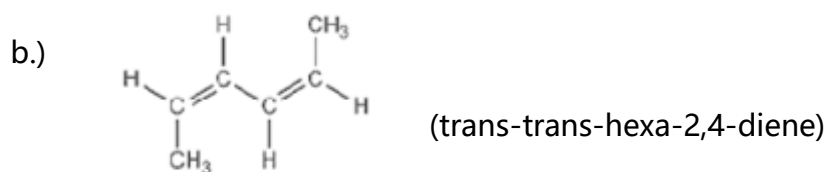
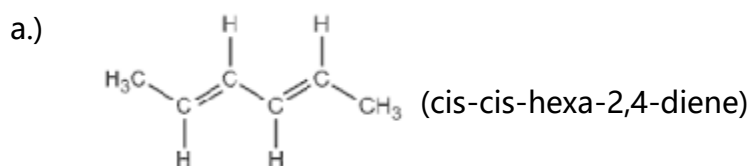


2.)i.) Specific rotation = $\frac{\text{(observed rotation in degrees)}}{\text{(concentration in g/cm}^3\text{) x (path length of sample cell in dm)}}$

$$\text{Concentration in g/cm}^3 = \frac{0.856}{10\text{m}^3} = 0.0856\text{g/cm}^3$$

$$\text{Specific rotation} = \frac{1}{0.0856 \times 1} = 11.68^\circ \text{g}^{-1} \text{cm}^3 \text{dm}^{-1}$$

3.) i.) Geometric isomers for Hexa-2,4-diene



ii.) Geometric Isomers of 2,3-dimethylbut-2-ene

2,3-dimethylbut-2-ene has no geometric isomers because all the constituents of their side branches are the same.