Assignment 8

1. Describe the mechanism of action of the drug aspirin. How does aspirin act as an analgesic and antipyretic? Explain your answer using the chemical structure.

2. Write a balanced chemical equation for the reaction of sodium carbonate with hydrochloric acid. What is the product of this reaction?

3. Identify the functional groups present in the following compound:

   ![Chemical Structure]

   a. Alkene
   b. Alkane
   c. Alcohol
   d. Amine

4. Write the chemical formula for the compound shown in the figure below.

   ![Chemical Structure]

   a. C₈H₁₆O₂
   b. C₁₀H₁₈O₂
   c. C₁₂H₂₀O₄
   d. C₁₄H₂₂O₄

5. Describe the structure of the following compound:

   ![Chemical Structure]

   a. Aromatic
   b. Aliphatic
   c. Heterocyclic
   d. Polar

6. Write the IUPAC name for the compound shown in the figure below.

   ![Chemical Structure]

   a. 2-Methylpentane
   b. 3-Methylhexane
   c. 2,3-Dimethylpentane
   d. 2,2,3-Trimethylhexane