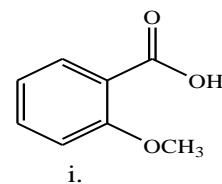
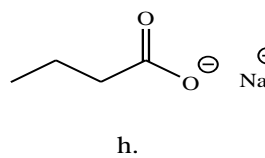
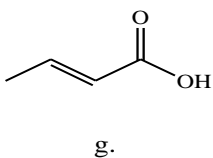
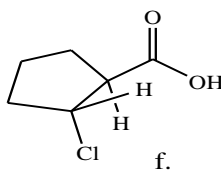
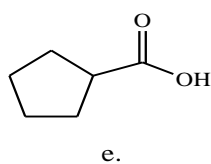
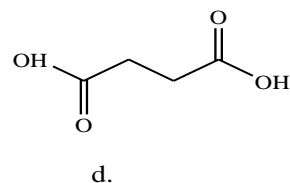
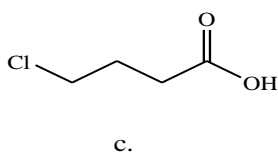
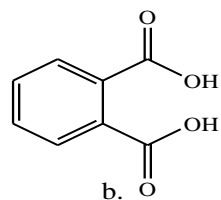
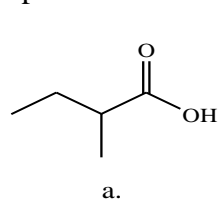


Chapter 20- Review Carboxylic Acid

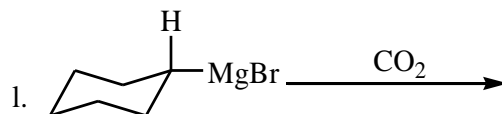
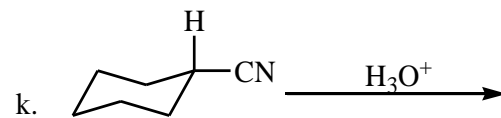
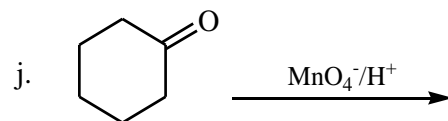
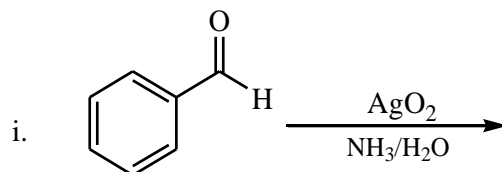
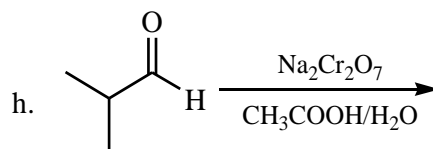
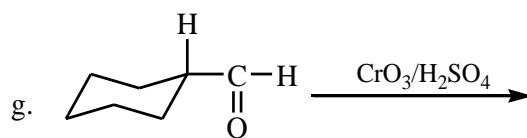
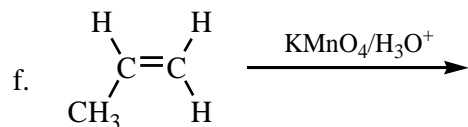
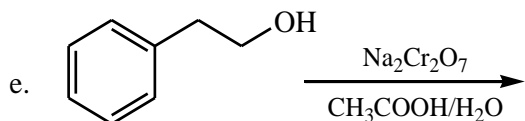
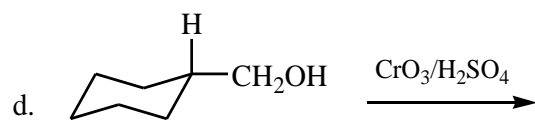
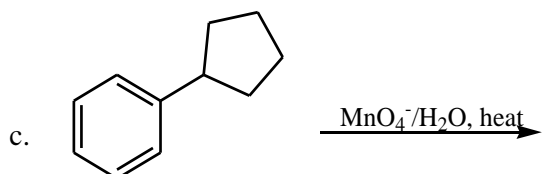
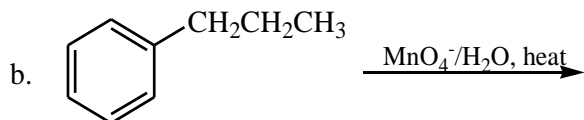
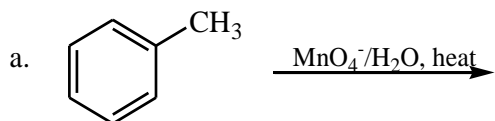
1. Nomenclature

Give the proper IUPAC names for each of the following compounds:

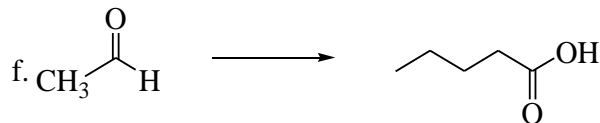
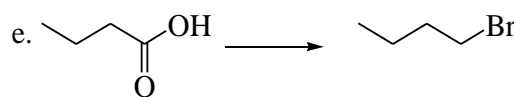
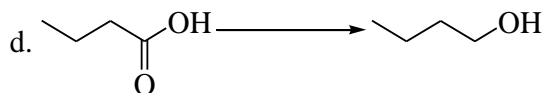
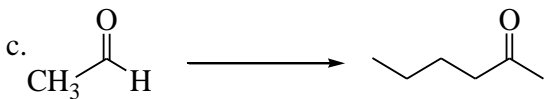
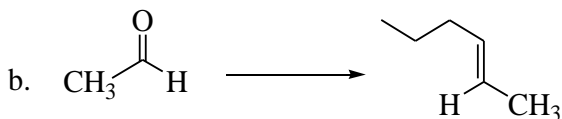
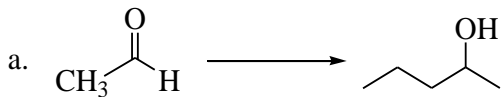


2. Carboxylic Acids-Synthesis

a. For each of the reactions shown below, draw the structure of the major organic product.



b. Suggest a synthesis for each of the compounds shown below, beginning with the acetaldehyde and/or butanoic acid for starting materials. Clearly show all intermediates and reaction conditions.



3. Carboxylic Acids-Selected Reactions

For each of the reactions below draw the structure of the major organic product:

