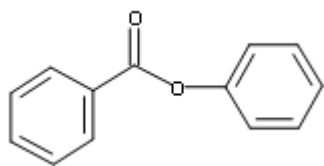
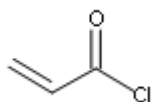
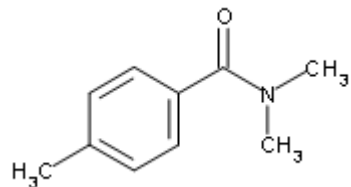


CHM 2211 – Ch 21 Homework

1. Provide both common and systematic names for the following molecules. Also, provide the systematic anhydride name and skeleton structure for phthalic anhydride. See Table 20.1 (8e pg 780) for common acyl group names. (2 pts)



2. Show the complete mechanism for the conversion of butanoic acid into butanoyl chloride. (1 pt)

3. Provide a synthesis with mechanism for acetic butyric anhydride from butyryl chloride. Include how the nucleophile is derived from a carboxylic acid. See Table 20.1 for common names of acids and acyl groups. (1 pt)

4. Provide a synthesis with mechanism to convert butanoyl chloride into 2-methyl-2-pentanol using a Grignard reagent. (2 pts)

5. Show mechanisms for the acid and base catalyzed hydrolyses of methyl formate.  
(2 pts)
6. Show reactions with mechanisms which will convert butanoyl chloride into aminobutane via butanamide. Note that aminolysis of an acid halide is similar to hydrolysis. (2 pts)