**Assignment #5 (Due Apr 5, 2023)**

**Chem 436 – Spring 2023**

1) Fill in the box with the appropriate reagents or major products.

a)



b)



c)



d)



2) Propose the route for the following synthesis.



3) Starting from ANY reagent, come up with two multistep reaction sequences that must be at least five steps long. At least one reaction must be from Chapter 22 (The Chemistry of Enolate Ions, Enols, and alpha-beta-Unsaturated Carbonyl Compounds).

a)

b)

4) Were you satisfied with how do you think you did in Midterm #2? What changes will you make to improve your results?