Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

UIN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Chem 436 – Spring 2023**

**Practice Midterm #3**

1. Fill in the blanks with the appropriate reagents and/or major product. (4 pts per Q, total 40)

















2. Draw the full arrow pushing mechanism for the following reactions (10 pts per Q, 30 total)







3) Propose an efficient synthesis for the following reactions. Indicate all reagents, solvents, and intermediates. (15 pts per Q, 30 total)



