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

Date: \_\_\_\_\_\_\_\_

Organic Chemistry Practice Exam 2

Questions 1-10: Determine how you would synthesize the following compounds from acetylene gas (C2H2)

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 

Questions 11-20: Propose a reasonable retrosynthetic analysis for the following compounds. For the bicyclic compounds (except for 15) you must start with cyclic and/or linear precursors.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 

Questions 21-30: Predict the products for the following reactions

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 

Questions 31-40: Predict the products for the following reactions of conjugated alkenes

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 

Questions 41-45: Provide a reasonable mechanism for the following reactions



1. 
2. 
3. 
4. 

Questions 46-50: Rank each set of compounds in order of increasing acidity and explain your reasoning.

1. 
2. 
3. 
4. 
5. 

Questions 51-55: Identify whether each compound is aromatic, nonaromatic, or antiaromatic. Explain your answer.

1. 
2. 
3. 
4. 
5. 

Questions 56-60: Identify which diene/dienophile pair would be better suited for a Diels Alder reaction and explain your answer.

1. 
2. 
3. 
4. 
5. 