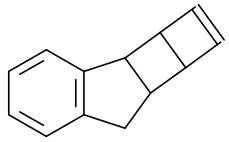
Quiz 2 Chem 232 Spring '10 Your name_____

A Student ID_____

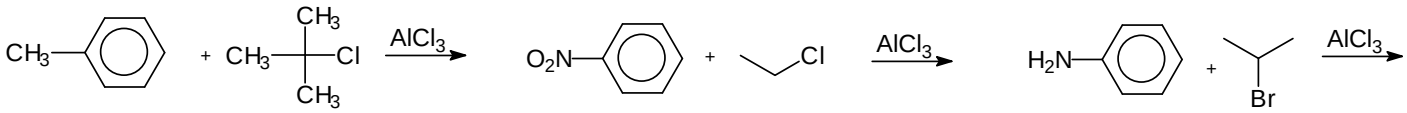
MARK ONE ANSWER FOR EACH QUESTION ON BOTH THE EXAM AND YOUR SCANTRON!

1. Cyclobutadiene is extremely reactive and undergoes Diels-Alder additions with various dienophiles. Which dienophile would generate the product below?



A. Phenylethyne B. Phenylethene C. Naphthalene D. Indene E. Azulene

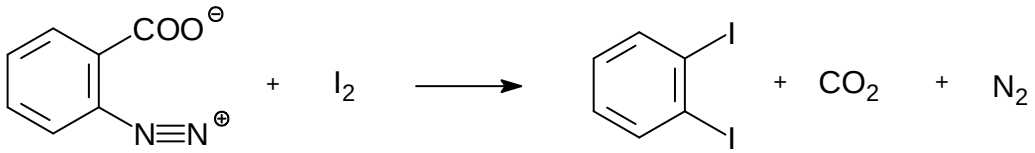
2. We discussed the fact that Friedel-Crafts alkylations fail for some aromatic substrates. How many of the following reactions can be expected to succeed?



rxn 1 rxn 2 rxn 3

A. reaction 1 only B. reaction 2 only C. reaction 3 only D. reactions 1 and 2
E. reactions 2 and 3

3. Iodine reacts with 2-phenyldiazonium carboxylate as shown below, to form 1,2-diiodobenzene, carbon dioxide, and nitrogen. What type of reaction mechanism is most likely at work?



A. A nucleophilic aromatic substitution following an addition-elimination mechanism
B. A benzyne mechanism
C. an electrophilic aromatic substitution
D. A Diels-Alder cycloaddition
E. An S_N2 substitution

4. **This is version A. Please circle 4 A on your scantron!**

Key qu232-01_2_101a

1. D
2. A
3. B