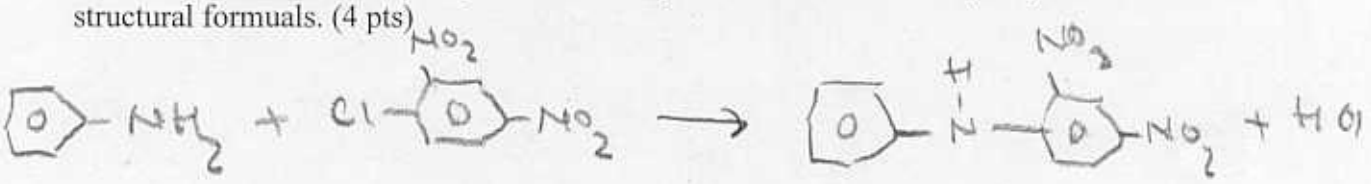
Quiz 5 Chem 233-05 Your name KEY

3/5/09 Student ID#_____

1. Show a balanced reaction equation for the synthesis of 2,4-dinitrodiphenylamine! Use structural formuals. (4 pts)



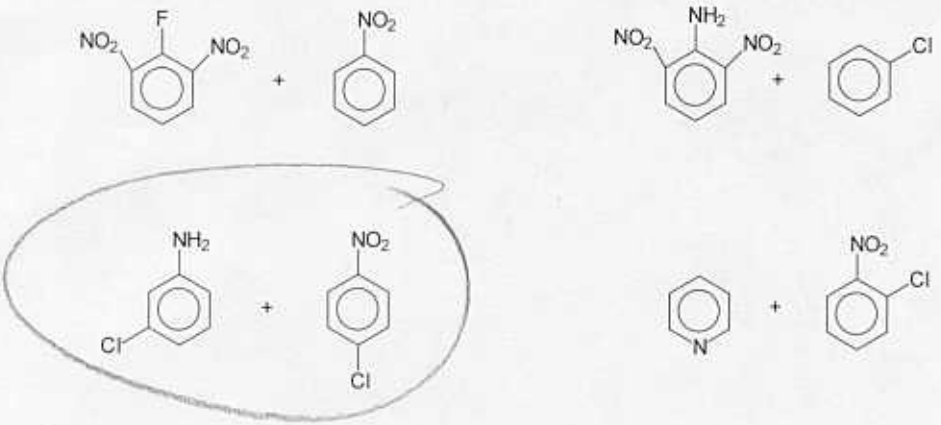
2. For nucleophilic aromatic substitutions, F^- is actually a better leaving group than Cl^-. Why? (4 pts)

It is more electronegative and makes it easier for the nucleophile to attack.

3. Name the product you will prepare today! (1 pts)

benzil

4. 4. Circle all the reactant pairs below that can be condensed to substituted diphenylamines in analogy to aniline and 1-chloro-2,4-dinitrobenzene! (4 pts)



5. The heating of 1-fluoro-4-nitrobenzene with 3-chloroaniline also generates a substituted diphenylamine. Show a structural formula for this product! (2 pts)