Chem 332
Exam 3
May 5, 2006
Prof Fox
50 minutes

100 points

Show your work in detail

Write your name on every page

Name
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1. Provide reagents. More than one step may be required Mechanisms are not needed.

(5 points each)

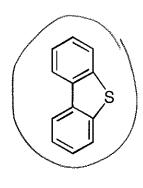
a 
$$\frac{NO_2}{CH_3}$$
 1)  $\frac{1) \frac{5}{1} \frac{1}{1} \frac{$ 

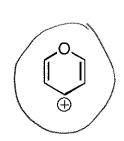
$$\begin{array}{c|c}
b & OH \\
\hline
HO
\end{array}$$

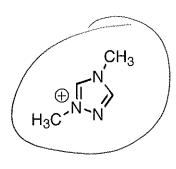
1. Provide the products of the following transformations. Mechanisms are not needed.

(5 points each)

2. Circle the compounds that are aromatic (5 points for each correct answer)











3. Provide a synthesis using benzene and any other materials that contain 3 carbons or less. (30 points)



4. Provide a detailed arrow pushing mechanism (25 points)