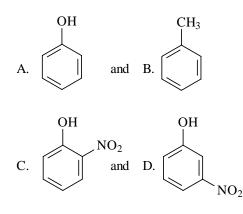
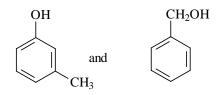
Chemistry 211 Chapter 24 Quiz #2

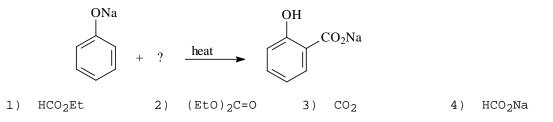
1. Which compound in each of the following pairs of compounds has the higher boiling point?



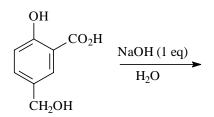
- 1) A and C 2) A and D 3) B and C 4) B and D
- 2. Which one of the following tests provides a simple method of distinguishing between the two compounds shown below?

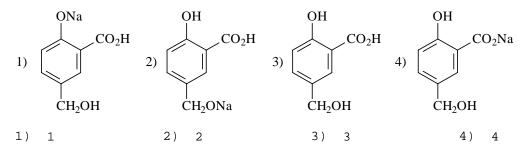


- 1) Reaction of each with sodium metal.
- 2) Reaction of each with acetic anhydride and catalytic sulfuric acid.
- 3) Solubility test of each in water.
- 4) Solubility test of each in aqueous sodium hydroxide.
- 3. Which one of the following is the missing reagent in the Kolbe-Schmitt reaction?

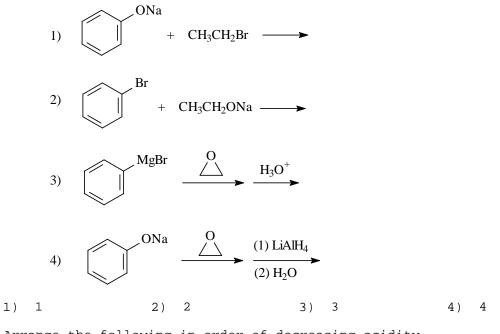


4. Identify the major species in solution from the reaction shown below.





5. Which one of the following reactions gives ethyl phenyl ether, $\rm CH_3CH_2OC_6H_5,$ as the major product?

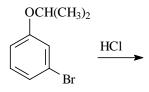


6. Arrange the following in order of decreasing acidity.

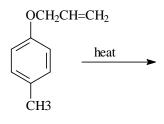
A. phenol

- B. *m*-nitrophenol
- C. p-nitrophenol
- 1) C>A>B 2) C>B>A 3) B>A>C 4) B>C>A

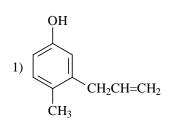
- 7. Which of the following groups increases the acidity of a phenol when positioned *parato* the hydroxy group?
 - A. -CH₃ $\stackrel{O}{\underset{I}{B. -CCH_3}}$ C. -C \equiv N 1) only A 3) B and C 2) only B 4) A, B, and C
- 8. Which of the following are the products of the reaction shown below?

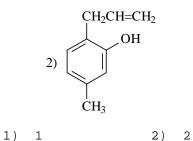


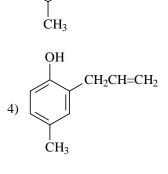
- 1) (CH₃)₂CHCl and *meta*-bromophenol
- 2) (CH₃)₂CHOH and meta-bromophenol
- 3) (CH₃)₂CHCl and *meta*-bromochlorobenzene
- 4) (CH₃)₂CHOH and meta-bromochlorobenzene
- 9. Which of the following is the Claisen rearrangement product from the reaction below?



3)







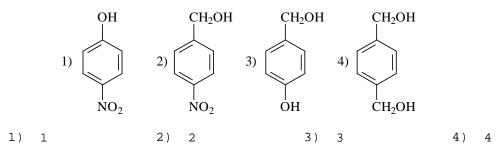
3)

3

CH₃

4) 4

10. Which of the following is the strongest acid?



11. Which of the following is the product of the reaction below?

