

# Organic Chemistry II

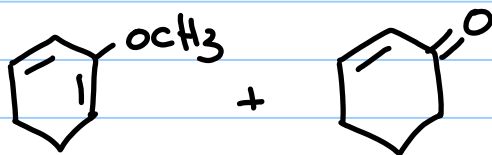
## Practice Final Exam

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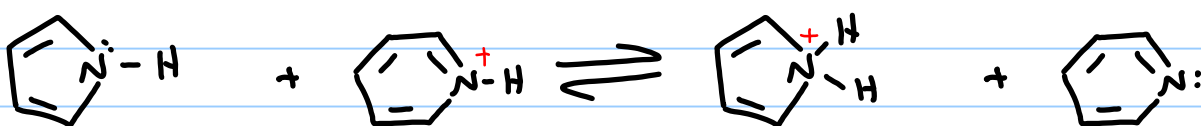
Exam solutions

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① What is the product of this reaction?

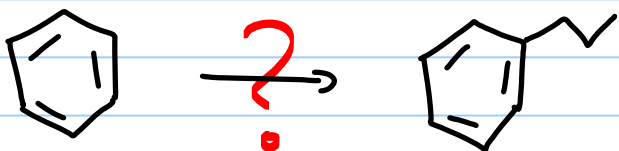


② Determine if this reaction favors reactants or products at equilibrium. use drawings to justify your answer



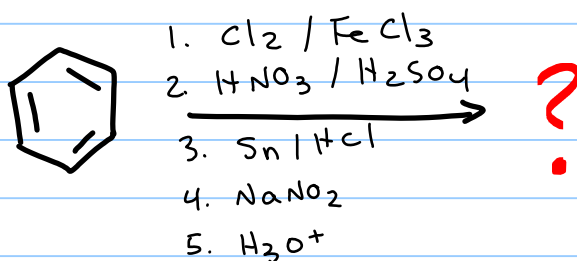
③ Determine the product or products when 2-methyl-1,3-pentadiene reacts with HCl under hot and cold conditions

④ show how to bring about the following transformation

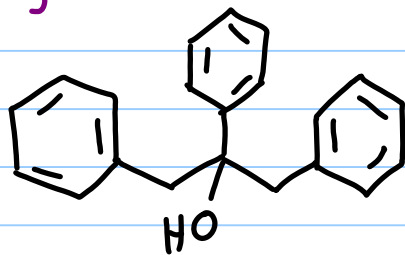


Hint: consider stability of potential intermediates

⑤ Determine the product of the following reaction sequence:

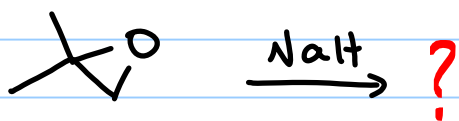


- ⑥ Show how to synthesize the compound shown starting from toluene and any inorganic reagent

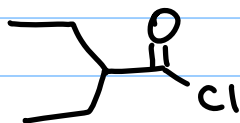


Hint: count your carbons

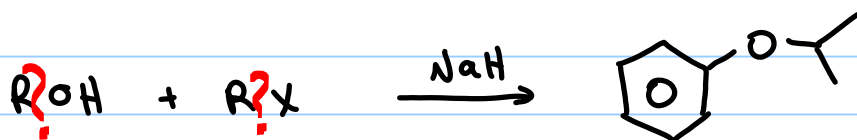
- ⑦ complete the following reaction



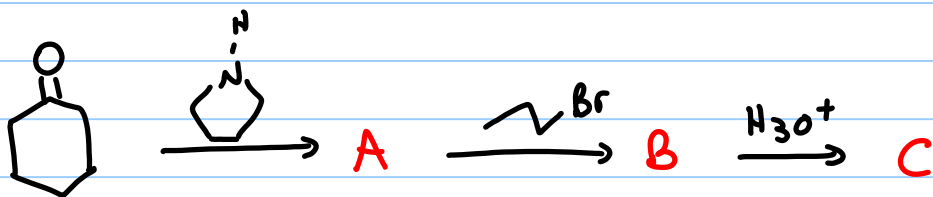
- ⑧ Show how to synthesize the compound shown starting with malonic acid + any other reagent



- ⑨ Select the best alcohol and alkyl halide for this reaction



- ⑩ Identify each intermediate and product for this reaction sequence



Want to see these problems solved  
with step by step explanations?

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