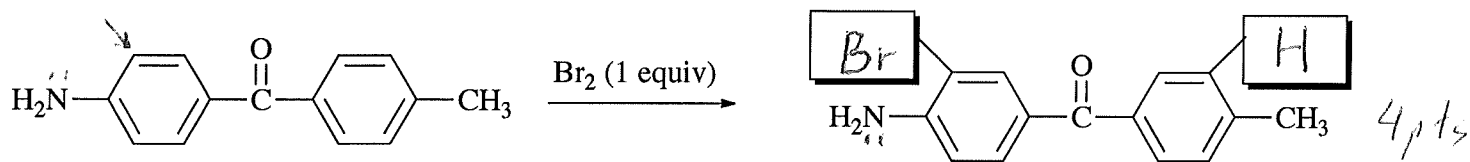
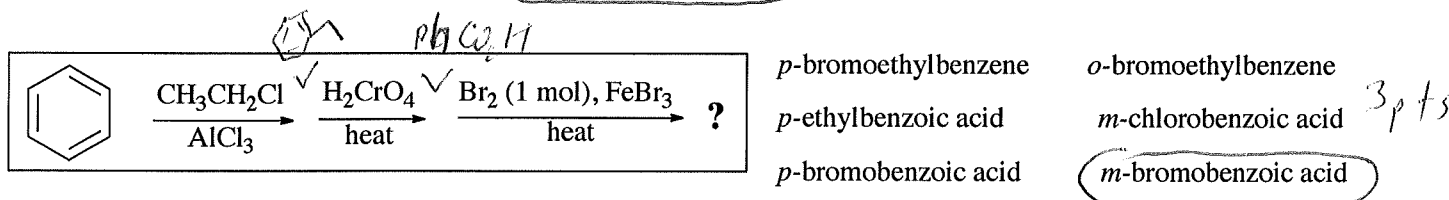
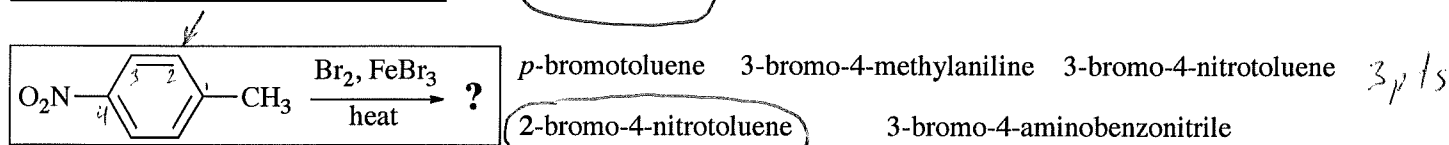
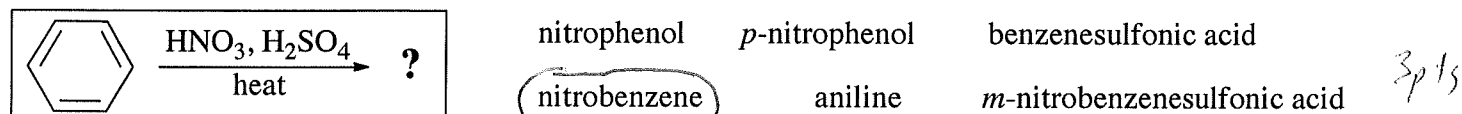


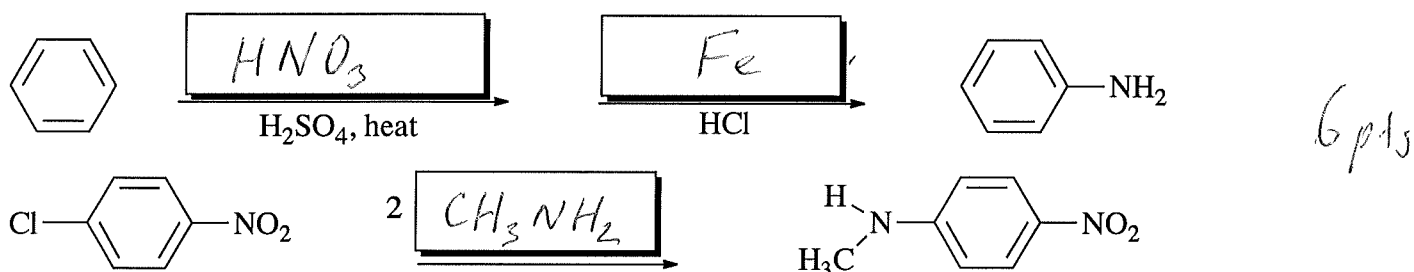
1. (4) Complete the following reaction by placing H or Br in the provided boxes (2 pts each box):



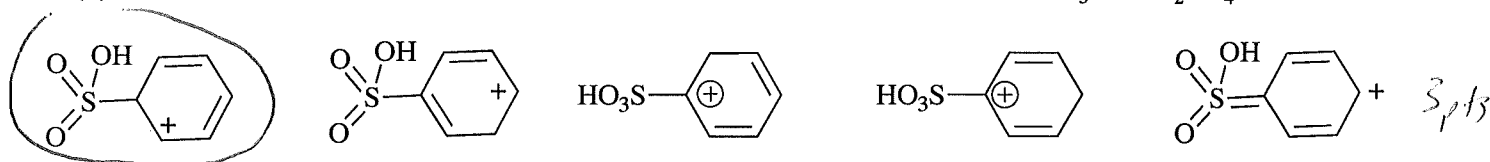
2. (9) Circle the major product in each of the following reactions (3 pts each):



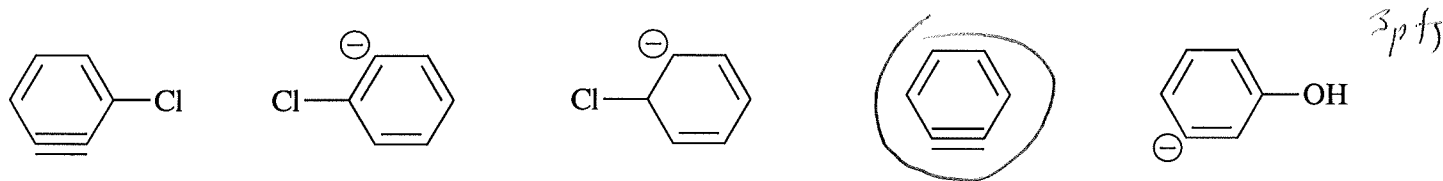
3. (6) Show the reagents that are required to convert the reactant to the indicated product (2 pts each):



4. (3) Circle the structure of the intermediate in the reaction of benzene with SO₃ and H₂SO₄:



5. (3) Circle the structure of the intermediate in the reaction of chlorobenzene with NaOH/H₂O at 300°C and high pressure:



Overall Score: 25