W

T

M

F

Th nt.

1. Identify each of the following compounds as aromatic, anti-aromatic, or not aromatic and explain your answer for each. (10 pts)



(a)







(d)



- (b)\_\_\_\_\_

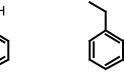
- 2. Give an IUPAC or common name for each of the following compounds. (10 pts)



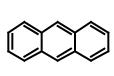




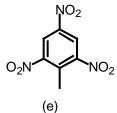
(b)



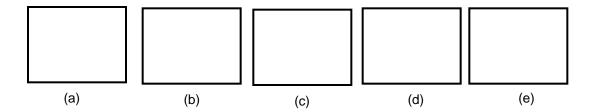
(c)



(d)



- 3. Draw the structure for each of the compounds named below. (10 pts)
  - (a) p-dichlorobenzene
- (c) naphthalene
- (b) m-nitrophenol
- (d) 4-nitrobenzoic acid
- (e) o-bromoanisole



4. Show the organic product(s) that would form from the following reactions. (10 pts)

5. Show a detailed mechanism for the reaction shown below. (5 pts)

6. Show how you could you carry out the following multi-step synthesis. (5 pts)