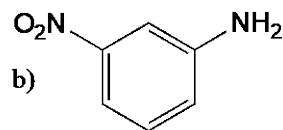
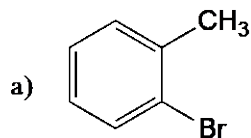


25 Points

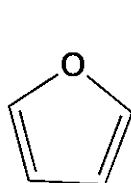
CEM143, Quiz 3, Summer 2018

NAME _____

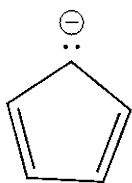
1) (4 Pts) Name the following aromatic compounds.



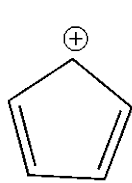
2) (5 Pts) Label the following compounds as Aromatic (A), or Not Aromatic.



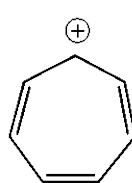
A



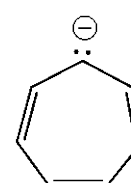
B



C

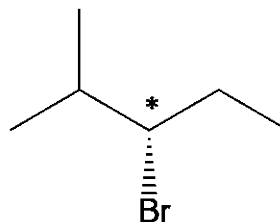
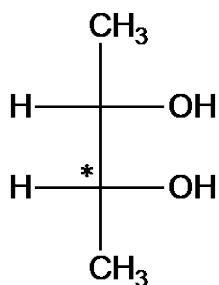
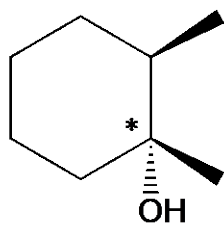


D



E

3) (3 Pts) Assign R/S-configuration to the stereogenic centers designated by a "*".



4) (2 Pts) The correct molecular formula for 1-methyl-1-phenylcyclohexane is:

- A) C₁₃H₁₈ B) C₁₂H₁₆ C) C₁₃H₂₆ D) C₁₂H₂₆ E) C₁₂H₁₈ F) C₁₃H₂₀

(8 Points) Use Figure 1 to answer questions 4-7.

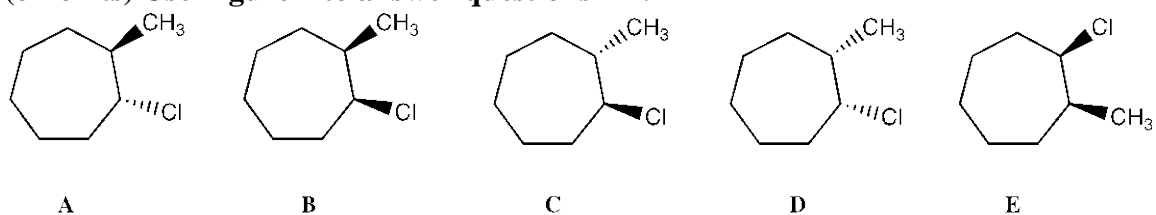


Figure 1

5. (2 Pts each) What is the stereochemical relationship between Compounds A & B in Figure 1?

- A) Enantiomers
- B) Diastereomers
- C) Identical
- D) Conformational isomers

6. (2 Points) What is the stereochemical relationship between Compounds B & E in Figure 1?

- A) Enantiomers
- B) Diastereomers
- C) Identical
- D) Conformational isomers

7. (2 Points) What is the stereochemical relationship between Compounds D & E in Figure 1?

- A) Enantiomers
- B) Diastereomers
- C) Identical
- D) Conformational isomers

8. (2 Points) What is the stereochemical relationship between Compounds A & C in Figure 1?

- A) Enantiomers
- B) Diastereomers
- C) Identical
- D) Conformational isomers

9. (3 pts) Provide an efficient synthesis of **Compound Z** starting with benzene and any other necessary reagents.

