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Chemistry 236 Organic Chemistry I – Fall 2023 Practice Midterm #1

1. What is the IUPAC name for the following compounds?

a)

(3-chloro-2-(1-chloroethyl)-2-methylpentyl)cyclohexane

b)

(E)-1,5-dibromo-3-(1-bromoethyl)-4-ethyl-2-methylhex-3-ene

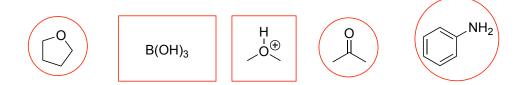
c)

2-chloro-3-methylpentane

2. For the Newman projection shown in question 1c, draw the most and least stable conformers

Least stable

3. For each of the following chemicals, identify all Lewis Acids with a box and all Lewis Bases with a circle.



4. Rank the following compounds in order of increasing acidity. 5 = most acidic, 1 = least acidic.

5. Draw all reasonable resonance structures for the following compounds.

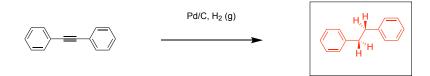
a)

6) Predict the major product for the following reactions.

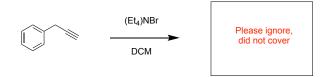
a)



b)



c)



d)

e)

7) Calculate the degree of unsaturation and draw two possible structures for each molecular formula.
a)
C ₆ H ₁₂
DoU = 1
p)
C_6H_6
DoU = 4