

CHEM 231: HOMEWORK SHEET
EXAM I (Spring 2005-Dr. Babb)

- Chapter 1:**
- A. Bonds: Ionic, Covalent and Polar Covalent (pg. 6-15)
Homework: 1.2-1.5, 1.7-1.12, 1.33
 - B. Lewis Structures and Valence (pg. 15-23)
Homework: 1.13-1.24, 1.35, 1.36, 1.38, 1.40-1.43
 - C. Formal Charge and Resonance (pg. 23-28)
 - D. Hybridization (pg. 28-32)
Homework: 1.25, 1.27, 1.28, 1.45-1.49, 1.51-1.53
 - E. Classification: Framework and Functional Group (pg. 32-37)
Homework: 1.30, 1.57-1.59
-

- Chapter 2:**
- A. Alkanes and Nomenclature of Alkanes (pg. 41-49)
Homework: 2.1-2.8, 2.26-2.28, 2.31
 - B. Properties of Alkanes (pg. 50-52)
Homework: 2.33, 2.34
 - C. Conformations of Alkanes (pg. 52-54)
Homework: 2.9, 2.35, 2.36
 - D. Cycloalkanes, Conformers and Isomerism (pg. 54-60)
Homework: 2.10-2.12, 2.14-2.17, 2.37-2.41
 - E. Reactions of Alkanes (pg. 61-67)
Homework: 2.18-2.24, 2.44, 2.45
-

- Chapter 3:**
- A. Alkenes, Alkynes and Nomenclature (pg. 71-75)
Homework: 3.1-3.5, 3.33-3.35, 3.39
 - B. Double and Triple Bonds: Orbital Picture (pg. 76-79 & 104-105)
 - C. Cis-trans Isomerism (pg. 79-82)
Homework: 3.6, 3.38
 - D. Addition Reactions of Alkenes (pg. 82-89 & 94-96)
Homework: 3.7-3.15, 3.19-3.21, 3.40-3.44
 - E. Addition Reactions in Conjugated Alkenes (pg. 96-99)
Homework: 3.22-3.24, 3.26, 3.48-3.51
 - F. Oxidation Reactions of Alkenes (pg. 101-103)
Homework: 3.27, 3.28, 3.52, 3.53, 3.56, 3.59
 - G. Reactions of Alkynes (pg. 105-109)
Homework: 3.29-3.32, 3.57, 3.58

NOTE: Exam I is Wednesday, Feb. 2 and will cover most of the topics listed on this sheet. You are responsible for material covered in lecture, reading material in text, and material covered in homework problems.