

CHEM 233: HOMEWORK SHEET
EXAM IV (Fall 2004-Dr. Babb)

- Chapter 11:**
- A. Nucleophilic Substitution: S_N2 and S_N1 (pg. 343-367)
Homework: 11.1, 11.2, 11.4-6, 11.8, 11.11-11.14, 11.26-11.28, 11.30-11.32, 11.35-11.39, 11.41, 11.55
 - B. Base-Induced Elimination: E2 and E1 (pg. 367-378)
Homework: 11.15-11.17, 11.19, 11.20, 11.34, 11.45, 11.49, 11.50
 - C. Substitution Reactions in Synthesis (pg. 378-382)
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- Chapter 12:**
- A. Mass Spectrometry (pg. 393-402)
Homework: 12.3, 12.4, 12.5, 12.25
 - B. Infrared Spectroscopy (pg. 403-417)
Homework: 12.6-12.11, 12.13, 12.34, 12.37-12.42, 12.50
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- Chapter 13:**
- A. ¹H NMR (pg. 424-430)
Homework: 13.2-13.5
 - B. Proton Equivalency, Chemical Shifts, and Integration (pg. 438-443)
Homework: 13.13, 13.14, 13.16-13.18, 13.31, 13.35-13.39, 13.44, 13.46
 - C. Spin-Spin Splitting (pg. 443-453)
Homework: 13.19-13.22, 13.40, 13.41, 13.49-13.53, 13.57
 - D. ¹³C NMR (pg. 431-438)
Homework: 13.6, 13.8, 13.32, 13.56

NOTE: The **Final Exam** is scheduled for **Friday, Dec. 17 (11 AM-1 PM)**. The Chem 233 final exam is comprehensive and cumulative. New material will account for ~25% of the questions on the final exam. You are responsible for material covered in lecture, reading material in text and material covered in homework problems. To the final exam bring a #2 pencil, pen, and a photo ID.