Homework: Chapters 19-21

**Chapter 19**

Review Questions: none

Paired/ Additional Exercises: 1, 2-40\*, 44, 46

**Chapter 20**

Review Questions: none

Paired Exercises: 2-56\*

**Chapter 21**

Review Questions: 1-5

Paired Exercises: 2-8\*, 12, 14

**Chapter 19-21 Exam Review** (optional, all answers in the back of textbook to check with)

Pages 561-564, do all MC, skip 35, 37, 50, 51, 55-9

\* do even problems only

Chapters 19-21 Test Information

Know and identify all functional groups (including aromatic)

Name and draw structures for alkanes/alkenes/alkynes (both cyclo and open chain & dienes), alkyl halides, and aromatics. Structures could be complete Lewis structures, condensed structures or line structures.

Sample compounds: alkane – 2-methylpropane

alkene – 2,3-dimethyl-3-hexene

alkyne – ethyne (also what is the common name??)

cycloalkane – 1,2-dipropylyclohexane

aromatic (special name) – 3,4-dibromo-2-ethylphenol

know: phenol (hydroxybenzene), toluene (methylbenzene), styrene (vinylbenzene)

aromatic – chlorobenzene

Have general organic chemistry knowledge such as:

Saturated/unsaturated

What is in organic compounds?

Polarity of organic molecules

Sources of alkanes and organic molecules

Solubility of organic molecules

Boiling/melting points of organic molecules

Identify reaction types if given the complete reaction:

- oxidation (ex: combustion)

- substitution (ex: halogenation, nitration, alkylation)

- addition (common in alkenes & alkynes)

- elimination (ex: cracking & dehydrogenation in alkanes; dehydration in alkenes)

Write complete addition reactions for alkenes & alkynes.

Write complete combustion reactions for alkanes.

Write complete substitution reactions for aromatics.

Identify cis-trans isomers

Know common names for polymer abbreviations (ex: PVC, etc.)

General information about polymers, meaning of, types, reactions, examples

**Disclaimer**: This is by no means a full representation of the exam. I may change/add information as I review the material. This is provided as a guide to help you focus your study time. I am not responsible for your performance on the exam!