Instructions: Write the Title of each section next to the section number and answer the questions.

Page before the start of section 17.1

Be sure you know the difference between Aldehydes and ketones and other functional groups that contain a carbonyl. Chapters 18-19 also have to do with carbonyl compounds, but not aldehydes and ketones.

What is the Central Theme in this chapter?

Section 17.1

Know how to use the -al and -one endings.

Common names and structures to know:

Formaldehyde, Acetaldehyde, Benzaldehyde and Acetone

Problem 17.1

a) 

b) 

c) 

d) 

Problem 17.2

a) 

b) 

c) 

d)
Section 17.2

**COPY** the resonance structures about 2/3 down on page 690

note also the diagram at the top of page 691

Section 17.3

**Problem 17.3**

Section 17.4

note these examples: bottom page 692 and top page 694

**Problem 17.5**
Section 17.5

note figure at top of page 696. Copy it here in a way that makes sense to you:

Section 17.6

Problem 17.6

Section 17.7

Problem 17.7

What are the three reasons converting aldehydes to cyanohydrins is of synthetic value:

1.

2.

3.

Problem 17.9
Section 17.8

What does a Hemiacetal look like?

What does an Acetal look like?

What do they have to do with aldehydes (or ketones)?

Problem 17.10

Problem 17.11

a)  

b)  

c)  

d)  

Problem 17.12 – use back of page if necessary
Section 17.9

what is the purpose of a “Protecting Group”?

Problem 17.13

Section 17.10

It is useful to know the word “imine,” although you will not be asked to name these compounds. Often biochem texts use the term “Schiff Base.”

Problem 17.14

a)

b)

c)

d)

Problem 17.16
Section 17.11 – skip

Section 17.12 – you don't need to know the mechanism for this reaction

Problem 17.18

Problem 17.19

a)

b)

c)

Problem 17.20

Section 17.13 – skip

Section 17.14

How do you convert an aldehyde to a carboxylic acid?