An example from the Fall 1997 Hour Examination #2:

1. (10 points)

Define each of the following two (2) terms precisely, succinctly and with correct grammar. Give specific examples for each term.

A. enantiomers

B. diastereomers

An example from the Fall 1998 Hour Examination #2:

5. (20 points)

State the relationship between each of the following four (4) pairs of alkyl halides.

A.

$$H_3C$$
 $\stackrel{\stackrel{\stackrel{\scriptstyle Br}{\stackrel{\scriptstyle \bullet}{\stackrel{\bullet}{\stackrel{\bullet}}}}}{\stackrel{\scriptstyle \bullet}{\stackrel{\bullet}{\stackrel{\bullet}}}}}{\stackrel{\scriptstyle Br}{\stackrel{\scriptstyle \bullet}{\stackrel{\bullet}{\stackrel{\bullet}}}}}{\stackrel{\scriptstyle CH_3}{\stackrel{\scriptstyle \bullet}{\stackrel{\bullet}{\stackrel{\bullet}}{\stackrel{\bullet}}}}}{\stackrel{\scriptstyle CH_3}{\stackrel{\scriptstyle \bullet}{\stackrel{\bullet}{\stackrel{\bullet}}{\stackrel{\bullet}{\stackrel{\bullet}}{\stackrel{\bullet}}}}}{\stackrel{\scriptstyle \bullet}{\stackrel{\bullet}{\stackrel{\bullet}}{\stackrel{\bullet}}}}$

В.

$$H_3C$$
 $\stackrel{\stackrel{Br}{=}}{\stackrel{E}{=}}$
 CH_3
 H_3C
 $\stackrel{\stackrel{Br}{=}}{\stackrel{E}{=}}$
 CH_3
 CH_3

C.

D.

$$H_3C$$

$$\stackrel{\stackrel{\stackrel{\circ}{=}}}{\stackrel{\stackrel{\circ}{=}}{\stackrel{\circ}{=}}} CH_3$$
 H_3C
 $\stackrel{\stackrel{\stackrel{\circ}{=}}{\stackrel{\circ}{=}}} CH_3$
 H_3C
 CH_3