## CHM 202

## Practice Problems – CH 19

1. Provide a stepwise mechanism for the following reaction. Show all intermediates and use arrows to indicate the electron flow.

2. Give the chemical steps required for the following syntheses:

a) 
$$O$$
 $CCI$ 
 $O$ 
 $CCI$ 
 $OH$ 
 $CHCH_2CH_3)_2Cu$ 
 $CHCH_2CH_3$ 
 $CHCH_2CH_3$ 
 $CHCH_2CH_3$ 
 $OH$ 
 $CHCH_2CH_3$ 

3. Propose a mechanism for the following reaction.

4. Propose a mechanism for the following transformation:

$$H_3O^+, pH = 4$$

$$H_2O$$

$$OH_2$$

$$OH_3$$

$$OH_4$$

$$OH_2$$

$$OH_4$$

$$OH_2$$

$$OH_4$$

$$OH_2$$

$$OH_4$$

$$OH_4$$