## Chemistry 2521; Fall 2001; Sample Quiz 4 (Ch. 4)

Printed Name (Last, First)

**1.** (12) Complete each of the following **acid-base** (or **Lewis acid-base**) reactions (2 pts each). Use **curved arrows** to show the flow of electrons in each reaction (2 pts each).

$$H_3C$$
 $O$ 
 $\vdots$ 
 $+$ 
 $B$ 
 $F$ 
 $F$ 

2. (4)Arrange the following compounds in order of <u>decreasing</u> acidity:

(1) 
$$CH_3CH_2CH_3$$
 (2)  $CH_3CH_2OH$  (3)  $CH_3CH_2NH_2$  (4)  $H-COH$ 

**3.** (3) Which one of the following compounds is the **strongest base**?

 $CH_3^ NH_2^ HO^ F^ Cl^ Br^ I^-$ 

**4.** (3) Which one of the following compounds has the most **acidic C–H bonds**?

$$H_3C-C\equiv C-CH_3$$
 $H_3C$ 
 $C=C$ 
 $C_2H_5$ 
 $CH_4$ 
 $C=C-H$ 

**5**. (3) Which one of the following compounds is a strong **Lewis acid**?

 $CH_3CH_2CH_3$   $CH_3NH_2$   $(CH_3)_2NH$   $AlCl_3$   $CH_3CH_2OCH_3$   $HO^-$