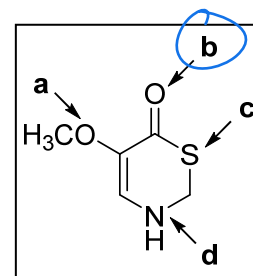
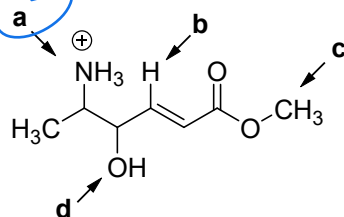


Name: \_\_\_\_\_

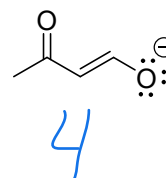
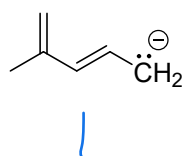
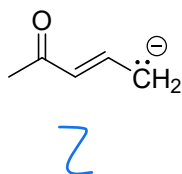
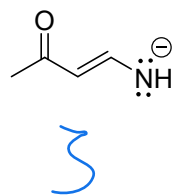
1. Circle the letter corresponding to the heteroatom that has **only localized lone pairs**? (1 point)



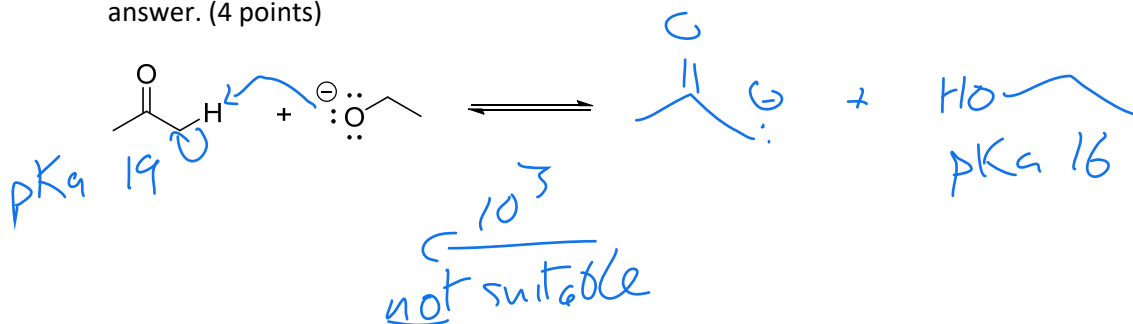
2. Circle the letter corresponding to the **MOST ACIDIC** proton? (1 point)



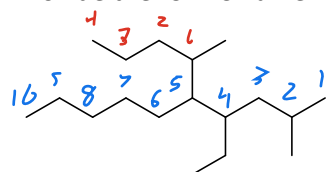
3. Rank the following bases from **MOST BASIC (1)** to **LEAST BASIC (4)**. (2 points)



4. a. Provide products and curved arrows for the following acid base reaction.  
b. Determine whether the base is a suitable choice for this deprotonation. Use **pK<sub>a</sub> values** to justify your answer. (4 points)



5. Provide the IUPAC name for the following molecule. (2 points)



4-ethyl-2-methyl-5-(1-methylbutyl)decane