

Name \_\_\_\_\_

## Naming Conjugate Acids and Conjugate Bases Answer Key

A **conjugate acid** is formed when a base accepts a proton ( $H^+$ ).

It will always have one more  $H^+$  than the base.

A **conjugate base** is formed when an acid donates a proton ( $H^+$ ).

It will always have one fewer  $H^+$  than the acid.

**Instructions:** For each acid or base provided, select the correct conjugate acid or conjugate base from the four options given.

1. The conjugate base of  $HCl$  is:

- a)  $H_2Cl$       **b)  $Cl^-$**       c)  $HCl_2$       D)  $H_2O$

2. The conjugate acid of  $OH^-$  is:

- a)  $O^{-2}$       b)  **$H_2O$**       c)  $H$       D)  $HO^-$

3. The conjugate base of  $H_2SO_4$  is:

- a)  $H_3SO_4$       b)  $SO_4^{-2}$       **c)  $HSO_4^-$**       D)  $H_2O$

4. The conjugate acid of  $NH_3$  is:

- a)  $NH_2^-$       b)  **$NH_4^+$**       c)  $NH$       D)  $N^{-3}$

5. The conjugate base of  $HCO_3^-$  is:

- a)  $H_2CO_3$       b)  **$CO_3^{-2}$**       c)  $H_2CO_4$       D)  $CO_3$

6. The conjugate acid of  $F^-$  is:

- a)  $F_2$       b)  $H_2O$       c)  **$HF$**       D)  $FH^-$