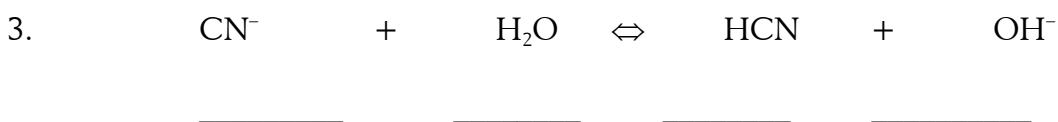
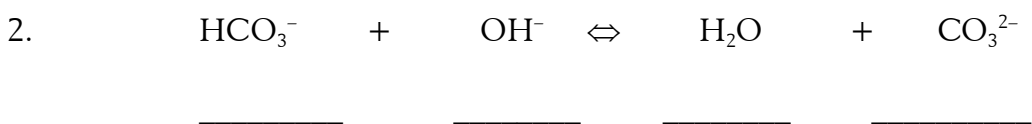
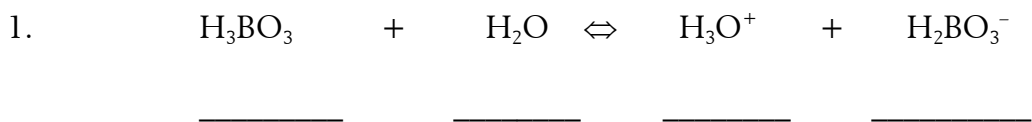


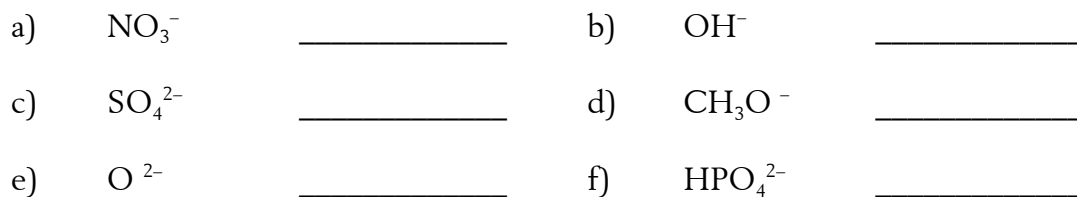
REVIEW QUESTIONS

Chapter 15

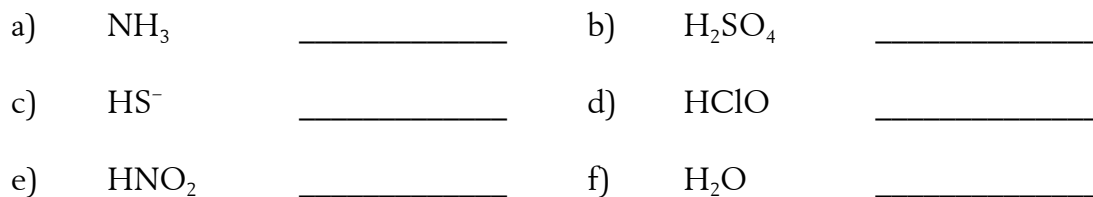
For each reaction shown below, determine the Brønsted-Lowry acid and base and their conjugates:



4. Identify the Brønsted-Lowry acid for each base shown below:



5. Identify the Brønsted-Lowry base for each acid shown below:



6. Complete the missing information in the table below:

$[\text{H}_3\text{O}^+]$	$[\text{OH}^-]$	Acidic/Basic
1.0×10^{-12}		
3.8×10^{-4}		
	4.2×10^{-4}	
	1.0×10^{-9}	
6.5×10^{-8}		

7. Identify each of the substances below as **strong electrolyte**, **weak electrolyte** or **non-electrolyte**:

a) KCl _____

b) HNO_3 _____

c) CH_3OH _____

d) HF _____

e) H_3PO_4 _____

8. What are the $[\text{H}_3\text{O}^+]$ and $[\text{OH}^-]$ for a solution with a pH of 4.10.

9. If 30.0 mL of 0.400 M H_2SO_4 is required to neutralize 15.0 mL of a NaOH solution, what is the molarity of NaOH?

10. Determine the molarity of a solution of H_3PO_4 if 25.0 mL of the acid is titrated with 14.0 mL of 0.250 M NaOH to the end point.

11. Complete and balance the equations below for reactions of acids:

