BRONSTED-LOWRY ACIDS AND BASES

Name ____

According to Bronsted-Lowry theory, an acid is a proton (H+) donor, and a base is a proton acceptor.

Example: HCl + OH- → Cl- + H₂O

The HCl acts as an acid, the OH- as a base. This reaction is reversible in that the H₂O can give back the proton to the CI-.

Label the Bronsted-Lowry acids and bases in the following reactions and show the direction of proton transfer.

Example:
$$H_2O + CI \leftrightarrow OH + HCI$$
Acid Base Base Acid

3.
$$HSO_4^- + H_2O \Leftrightarrow SO_4^{-2} + H_3O^+$$

4.
$$OH^- + H_3O^+ \leftrightarrow H_2O + H_2O$$

5.
$$NH_3 + H_2O \leftrightarrow NH_4^+ + OH^-$$

Chapter Vocabulary Review, continued

Directions Match the items in column A with those in column B. Write the letter of each correct answer on the line.

flie lefter or	Column A	Column B
	11. proton donor 12. molecule or ion formed when an acid donates a proton 13. has a known concentration in a titration 14. produced from a strong acid and a strong base 15. completely dissociates in water 16. produced from a weak acid and a strong base 17. point when all of the acid reacts with all of the base 18. does not completely dissociate in water	A acid B base C basic salt D conjugate acid E conjugate base F equivalence point G neutral salt H pH I standard solution
	19. proton acceptor) strong base
	20. uses a scale of 0 to 1421. molecule or ion formed when a base accepts a proton	X weak acid