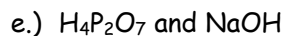
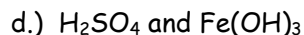
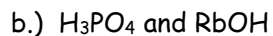


Practice - Acids and Bases

Part 1 - Arrhenius Acids

1.) Write the balanced equation for the following neutralization reactions.

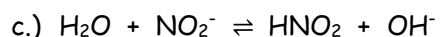
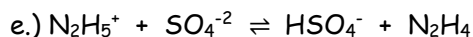
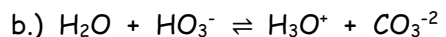
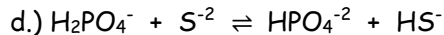
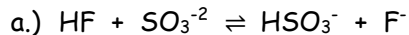


2.) Write equations for the dissociation of the following acids.

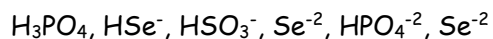


Part 2 - Bronsted-Lowry Acids

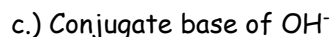
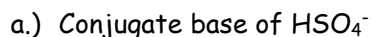
3.) Identify the species as acids or bases in the following equations.



4.) Identify which chemicals below are amphiprotic.



5.) Write the formula for the following.



b.) Conjugate acid of HSO_4^-

c.) Conjugate acid of OH^-

6.) What is the conjugate acid for each of the following chemicals?

a.) F^-

c.) Te^{2-}

e.) HC_2O_4^-

b.) HTe^-

d.) CH_3NH_2

f.) H_2PO_3^-

7.) Write the Bronsted-Lowry acid-base equilibrium for the following solutions.

a.) HCN^- and HF^-

b.) HPO_4^{2-} and SO_4^{2-}

c.) HPO_4^{2-} and CH_3COO^-

d.) S^{2-} and HCOOH

e.) HIO_3 and $\text{C}_2\text{O}_4^{2-}$

f.) NO_2^- and HSO_3^-

8.) Circle the acid that is stronger.

a.) HIO_3 or CH_3COOH

b.) H_2O_2 or HSO_3^-

c.) H_2PO_4^- or HCN

9.) Circle the base that is stronger.

b.) HCO_3^- or PO_4^{3-}

b.) HPO_4^{2-} or HS^-

c.) NH_3 or OH^-

d.) HCOO^- or HSO_3^-

10.) H_2Te is a stronger acid than H_2S . Write the formulas of the conjugate bases and explain which base is stronger.

11.) Write the chemical equation for each of the following.

a.) F^- as a base

b.) HNO_2 as an acid

c.) $\text{Fe}(\text{H}_2\text{O})_6^{+3}$ as an acid

d.) HCO_3^- as a base