Naming and Writing Formulas of Acids and Bases – Worksheet

Part A

1. Name the following acids/bases:

a) HCl (aq) _____

b) NaOH _____

c) H_2SO_3 (aq) _____

d) $Fe(OH)_3$ _____

e) HNO_3 (aq) _____

f) $Ba(OH)_2$ _____

g) H_2S (aq) _____

h) NH_4OH _____

i) H_3PO_4 (aq) _____

j) $Al(OH)_3$ _____

k) $HClO_2$ (aq) _____

l) $Cu(OH)_2$ _____

m) HF (aq) _____

n) H_2CO_3 (aq) _____

o) $HClO_4$ (aq) _____

p) HI (aq) _____

2. Write the correct formulas for the following acids/bases:

a) hydrobromic acid _____

b) potassium hydroxide _____

c) carbonic acid _____

d) calcium hydroxide _____

e) hydrocyanic acid _____

f) perchloric acid _____

g) iron(III) hydroxide _____

h) nitrous acid _____

i) hydroiodic acid _____

j) strontium hydroxide _____

k) phosphorous acid _____

l) sulfuric acid _____

m) chlorous acid _____

n) hypochlorous acid _____

o) zinc hydroxide _____

p) lithium hydroxide _____

3. A student writes the name of HNO_2 as nitric acid. Explain why this is incorrect and give the correct name.

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4. Compare the naming of $HClO$ and $HClO_4$. Why do their names differ even though both are oxoacids of chlorine?

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5. Write the name and formula of the acid formed from the ClO_3^- ion.

_____

6. An acid is written as H_2X, where X is an unknown polyatomic ion. If the acid's name is hypophosphorous acid, determine the formula of the ion X and the full formula of the acid.

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7. Many bases are named with the metal cation followed by hydroxide. Why must we include Roman numerals when naming $Fe(OH)_2$ and $Fe(OH)_3$, but not for $NaOH$ or $Ba(OH)_2$?

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