

CHEM 1100 Practice for Net Ionic and Solubility Quiz Dr. Stone

1) Write the chemical formula for

a. sulfurous acid  $\text{H}_2\text{SO}_3$

b. perchloric acid  $\text{HClO}_4$

2) The reaction of  $\text{HNO}_3(\text{aq}) + \text{KOH}(\text{aq}) \rightarrow \text{KNO}_3(\text{aq}) + \text{H}_2\text{O}(\text{l})$  is best classified as a(n)

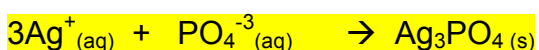
A) acid-base neutralization reaction.

B) oxidation-reduction reaction.

C) precipitation reaction.

D) single replacement reaction.

3) Write the net ionic equation for the reaction of sodium phosphate with silver nitrate



4) What reagent could not be used to separate chloride from hydroxide ions when added to an aqueous solution containing both (which reactant will precipitate both chloride and hydroxide ions?)

A)  $\text{AgNO}_3(\text{aq})$

B)  $\text{Ca}(\text{NO}_3)_2(\text{aq})$

C)  $\text{Cu}(\text{NO}_3)_2(\text{aq})$

D)  $\text{Fe}(\text{NO}_3)_3(\text{aq})$

5) Which one of the following compounds is insoluble in water?

A) potassium sulfate

B) sodium nitrate

C) lead(II) sulfate

D) rubidium carbonate

6) Write a balanced net ionic equation for the reaction of  $\text{Pb}(\text{NO}_3)_2(\text{aq})$  with  $\text{NaI}(\text{aq})$ .



7) What reagent would distinguish between  $\text{Ag}^+$  and  $\text{Fe}^{3+}$  (precipitate one but not the other?)

A) sodium perchlorate

B) sodium iodide

C) sodium nitrate

D) sodium hydroxide

8) Which pair of reactants will produce a precipitate when mixed together?

A)  $\text{HCl}(\text{aq})$  and  $\text{NaOH}(\text{aq})$

B)  $\text{HCl}(\text{aq})$  and  $\text{Na}_2\text{CO}_3(\text{aq})$

C)  $\text{HCl}(\text{aq})$  and  $\text{Na}_2\text{S}(\text{aq})$

D)  $\text{HCl}$  and  $\text{Pb}(\text{NO}_3)_3$

9) Write the chemical formula for

a. nitric acid.  $\text{HNO}_3$

b. hypochlorous acid  $\text{HClO}$

10) Write a balanced net ionic equation for the reaction of  $\text{H}_2\text{SO}_4(\text{aq})$  with  $\text{Ba}(\text{OH})_2(\text{aq})$ .

