

Year 11 Chemistry
Solubilities and Reactions Revision Questions

1. Write the following as formulae and indicate solubility e.g. $\text{Pb}(\text{NO}_3)_2(\text{aq})$
 - (a) nickel oxide
 - (b) lead fluoride
 - (c) cobalt hydroxide
 - (d) ammonium chloride
 - (e) potassium nitrate
 - (f) silver iodide
 - (g) gold sulfide
 - (h) tin sulfate
 - (i) iron carbonate
 - (j) potassium phosphate
 - (k) sodium nitrate
 - (l) magnesium bromide

2. An unknown ionic substance forms a precipitate with fluoride and sulphate but not with oxides or sulfides. Deduce the cation, and give reasons.

3. Write balanced ionic equations for the following:
 - (a) chlorine gas plus calcium metal
 - (b) solid lead carbonate plus hydrochloric acid
 - (c) solid magnesium bicarbonate plus nitric acid
 - (d) magnesium metal plus copper sulfate solution
 - (e) sodium nitrate solution plus zinc metal
 - (f) silver nitrate solution plus copper sulfate solution
 - (g) sulfuric acid plus sodium hydroxide solution
 - (h) phosphoric acid plus potassium metal
 - (i) lithium metal plus water
 - (j) combustion of propane gas (C_3H_8) in air