Chem12 Net Ionic Equations : W.S.-70

1) Label the following compounds as (s) for soluble or (i) for insoluble.

KNO_3, $CaCO_3$, H_2S, CuCl, PbI_2, NH_4Cl, $Mg_3(PO_4)_2$

2) Write down the (balanced) net ionic equation that results when the following pairs of solutions are combined. (use the solubility table)

a) iron(III)chloride(aq) + sodium hydroxide(aq)

b) copper(II)nitrate(aq) + potassium sulfide(aq)

c) barium chloride(aq) + ammonium sulfate(aq)

d) calcium bromide(aq) + lithium phosphate(aq)

e) silver nitrate(aq) + sodium sulfide(aq)

Answers : 1) s, i, s, i, i, s, i. 2)a) $Fe^{3+}(aq) + 3OH^-(aq) \rightarrow Fe(OH)_3(s)$, b) $Cu^{2+}(aq) + S^{2-}(aq) \rightarrow CuS(s)$, c) $Ba^{2+}(aq) + SO_4^{2-}(aq) \rightarrow BaSO_4(s)$, d) $3Ca^{2+}(aq) + 2PO_4^{3-}(aq) \rightarrow Ca_3(PO_4)_2(s)$, e) $2Ag^+(aq) + S^{2-}(aq) \rightarrow Ag_2S(s)$.