Quiz (Chemical Formulae and Names of Ionic Compounds)

1. Write the names and formulae of the following compounds.

	Cation	Anion	Name of the compound	Formula of the compound
(a)	NH_4^+	Cl^-		
(b)	Mg^{2+}	OH^-		
(c)	Li^+	NO_2^-		
(d)	Zn^{2+}	SO_4^{2-}		
(e)	Co^{2+}	NO_3^-		
(f)	Cr^{3+}	Br^-		
(g)	Fe^{3+}	PO_4^{3-}		
(h)	Mn^{2+}	SO_3^{2-}		
(i)	Fe^{2+}	O^{2-}		
(j)	Ca^{2+}	CO_3^{2-}		

2. Write the names of the following compounds.
   (a) $Ca(NO_3)_2$
   (b) Fe_2O_3
   (c) $Al(OH)_3$
   (d) MgS
   (e) $(NH_4)_2CO_3$
   (f) Cr_2S_3
   (g) FeI_3
   (h) $Ni_3(PO_4)_2$
   (i) $KMnO_4$
   (j) Na_2SO_3

Suggested Answer

1.

	Cation	Anion	Name of the compound	Formula of the compound
(a)	NH_4^+	Cl^-	**Ammonium chloride**	**NH_4Cl**
(b)	Mg^{2+}	OH^-	**Magnesium hydroxide**	**$Mg(OH)_2$**
(c)	Li^+	NO_2^-	**Lithium nitrite**	**$LiNO_2$**
(d)	Zn^{2+}	SO_4^{2-}	**Zinc sulphate**	**$ZnSO_4$**
(e)	Co^{2+}	NO_3^-	**Cobalt(II) nitrate**	**$Co(NO_3)_2$**
(f)	Cr^{3+}	Br^-	**Chromium(III) bromide**	**$CrBr_3$**
(g)	Fe^{3+}	PO_4^{3-}	**Iron(III) phosphate**	**$FePO_4$**
(h)	Mn^{2+}	SO_3^{2-}	**Manganese(II) sulphite**	**$MnSO_3$**
(i)	Fe^{2+}	O^{2-}	**Iron(II) oxide**	**FeO**
(j)	Ca^{2+}	CO_3^{2-}	**Calcium carbonate**	**$CaCO_3$**

2. (a) Calcium nitrate
   (b) Iron(III) oxide
   (c) Aluminium hydroxide
   (d) Magnesium sulphide
   (e) Ammonium carbonate
   (f) Chromium(III) sulphide
   (g) Iron(III) iodide
   (h) Nickel(II) phosphate
   (i) Potassium permanganate
   (j) Sodium sulphite