

Answer 1A) If XCl_2 then X should be a metal with valency 2

Therefore

(1) Sulphate formula : XSO_4

(2) Hydroxide formula : $X(OH)_2$

Answer 1B) XN_3 is nitride. X is a valency 3 metal as nitrogen has valency 3

Therefore Sulphate's formula would be $X_2(SO_4)_3$ and Hydroxide formula would be $X(OH)_3$

Answer 1C) valency of Nitrogen in :

1) NO : +2

2) N_2O : +1

3) NO_2 : +4

Answer 2B) The eight metals showing variable valency

1) Iron (Fe) : +2, +3, ~~+4~~, ~~+6~~

(2) Copper (Cu) : +1, +2

(3) Mercury (Hg) : +1, +2

(4) Tin (Sn) : +2, +4

(5) ~~Antimony~~ Lead (Pb) : +2, +4

(6) Gold (Au) : +1, +3

(7) Chromium (Cr) : +2, +3, +6

(8) Manganese (Mn) : +2, +3, +4, +6, +7

Answer 2C) Examples of Chemical Equations :

(a) One product : $2\text{H}_2 + \text{O}_2 \longrightarrow 2\text{H}_2\text{O}$

(b) Two Products : $\text{CaCO}_3 \longrightarrow \text{CaO} + \text{CO}_2 + \text{CaO}$

(c) Three Products : $4\text{HNO}_3 \longrightarrow 2\text{H}_2\text{O} + 4\text{NO}_2 + \text{O}_2$

(d) Four Products : $2\text{KClO}_3 \longrightarrow 2\text{KCl} + 2\text{O}_2 + \text{O}_2\uparrow + \Delta$

Answer 2D)