

Page 1

****Answer 1.1.)**** If XCl_2 then X should be a metal with valency 2.

* Sulphate Formula: XSO_4

* Hydroxide Formula: X(OH)_2

****Answer 1.2.)**** XN is nitride. X is a valency 3 metal as nitrogen has valency 3.

Therefore, Sulphate's formula would be $\text{X}_2(\text{SO}_4)_3$ and Hydroxide's formula would be X(OH)_3

****Answer 1.3)**** Valency of nitrogen in:

1) NO: +2

2) N_2O : +1

3) NO_2 : +4

****Answer 2.1)**** Three symbols whose first letter is the symbol for them.

(1) Boron (B)

(2) Carbon (C)

(3) Hydrogen (H)

Page 2

****Answer 2.2)****

The eight metals showing variable valency:

1) Iron (Fe) : +2, +3

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

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

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

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

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

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

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

****Answer 2.3)**** Examples of chemical equations:

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

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

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

(d) four Products : $2\text{KClO}_3 \rightarrow 2\text{KCl} + 2\text{O}_2 + \text{O}_2 + \Delta$

****Answer 2.4)**** Symbols in chemical equation mean:

(i) \uparrow - Gas evolved

(ii) \downarrow - precipitate formed

(iii) (s) - solid state

(iv) (l) - liquid state

(v) (g) - gaseous state

(vi) (aq) - aqueous solution