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Answer 1.1) If XCI■ then X should be a metal with valency 2.

Sulphate Formula: XSO■

Hydroxide Formula: X(OH)■

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

Therefore, Sulphate's formula would be $X\blacksquare(SO\blacksquare)\blacksquare$ and Hydroxide's formula would be $X(OH)\blacksquare$

Answer 1.3) Valency of nitrogen in:

- 1) NO: +2
- 2) N**■**O: +1
- 3) NO**■**: +4

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

- (1) Boron (B)
- (2) Carbon (C)
- (3) Hydrogen (H)

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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 : $2H2 + O2 \rightarrow 2H2O$
- (b) Two product : $CaCO3 \rightarrow CaO + CO2$
- (c) Three Products : $4HNO3 \rightarrow 2H2O + 4NO2 + O2$
- (d) four Products : 2KClO3 \rightarrow 2KCl + 2O2 + O2 + Δ

Answer 2.4) Symbols in chemical equation mean:

- (i) ↑ Gas evolved
- (ii) ↓ precipitate formed
- (iii) (s) solid state
- (iv) (l) liquid state
- (v) (g) gaseous state
- (vi) (aq) aqueous solution