

Ionic Compounds : W.S.-80

- 1) What is an ion?
- 2) What is an ionic compound?
- 3) Metallic ions are usually _____ (+ or -) charged.
- 4) Non-metallic ions are usually _____ (+ or -) charged.
- 5) Write down the symbol (with charge) for the following ions:
 - a) calcium
 - b) fluoride
 - c) lead (II)
 - d) ammonium
 - e) sulfide
 - f) copper (I)
 - g) potassium
 - h) nitrate
 - i) sulfate
- 6)a) Chromium ions can have two charges. Name them.
b) Which type of chromium ion is more common?
- 7) Name the ion.
 - a) H^+
 - b) $\text{C}_2\text{H}_3\text{O}_2^-$
 - c) I^-
 - d) Al^{3+}
 - e) Ni^{2+}
 - f) OH^-
 - g) Ag^+
 - h) CO_3^{2-}
 - i) O^{2-}
- 8) Name the compounds.
 - a) HBr
 - b) MgO
 - c) CaF_2
 - d) Ag_2S
 - e) PbI_2
 - f) MgBr_2
 - g) Cr_2O_3
 - h) Na_2CO_3
 - i) LiOH
 - j) $\text{Ba}(\text{NO}_3)_2$

9) Give the symbol for the following compounds:

- | | |
|------------------------|------------------------|
| a) hydrogen chloride | b) zinc bromide |
| c) strontium nitrate | d) hydrogen peroxide |
| e) tin (IV) oxide | f) copper (I) fluoride |
| g) iron (II) carbonate | h) potassium phosphate |
| i) silver sulfate | j) tin (II) sulfide |

10)a) Group 1 elements (H, Li, Na,...) are charged _____ .

b) Group 2 elements (Mg, Ca,...) are charged _____ .

c) The halogens (F, Cl, Br,...) are usually charged _____ .

Answers:

1) It is an atom that has lost or gained electrons., 2) It is a compound that is composed of a metallic ion and a non-metallic ion., 3) +, 4) -, 5)a) Ca^{2+} , b) F^- , c) Pb^{2+} , d) NH_4^+ , e) S^{2-} , f) Cu^+ , g) K^+ , h) NO_3^- , i) SO_4^{2-} , 6)a) chromium (III) and chromium (II), b) chromium (III), 7)a) hydrogen, b) acetate, c) iodine, d) aluminum, e) nickel (II), f) hydroxide, g) silver, h) carbonate, i) oxide, 8)a) hydrogen bromide, b) magnesium oxide, c) calcium fluoride, d) silver sulfide, e) lead (II) iodide, f) magnesium bromide, g) chromium (III) oxide, h) sodium carbonate, i) lithium hydroxide, j) barium nitrate, 9)a) HCl , b) ZnBr_2 , c) $\text{Sr}(\text{NO}_3)_2$, d) H_2O_2 , e) SnO_2 , f) CuF , g) FeCO_3 , h) K_3PO_4 , i) Ag_2SO_4 , j) SnS , 10)a) +1, b) +2, c) -1.