Science 10: Ionic Compounds

1. Name the following simple ionic compounds:

A. LiF B. BeCl2

C. Na3N D. MgO

E. Ca3P2 F. MgF2

G. K3N H. Li2O

I. BeS J. Mg3N2

2. Name the following ionic compounds involving a multi-valent metal:

A. CoO B. Co2O3

C. FeN D. Fe3N2

E. Fe2S3 F. FeS

G. MnCl2 H. MnCl4

I. Ti3N4 J. TiN

3. Name the following ionic compounds involving a polyatomic ion:

A. NaNO3 B. Mg(NO3)2

C. Mg3(PO3)2 D. LiOH

E. KNO3 F. NH4Cl

G. Na2CrO4 H. BeSO4

I. Li3PO4 J. Ca(CN)2

4. Write the name for the following ionic compounds:

A. CrO B. MgF2

C. K2SO4 D. Fe2S3

E. Ca(ClO2)2 F. BeCl2

G. (NH4)2S H. Cu2O

5. Write the chemical formula for each of the following simple ionic compounds:

A. Sodium oxide B. Calcium Fluoride

C. Lithium Nitride D. Magnesium Chloride

E. Aluminum Bromide F. Beryllium phosphide

G. Potassium Sulphide H. Scandium oxide

6. Write the chemical formula for each of the following ionic compounds involving a multi-valent metal:

A. Iron(II) chloride B. Iron(III) chloride

C. Copper(I) oxide D. Copper(II) oxide

E. Nickel(II) sulphide F. Nickel(III) sulphide

G. Titanium(IV) fluoride H. Titanium(III) fluoride

7. Write the chemical formula for each of the following ionic compounds involving a polyatomic ion:

A. Sodium sulphite B. Magnesium hypochlorite

C. Calcium Nitrate D. Calcium Nitrite

E. Potassium chromate F. Ammonium dichromate

G. Lithium suphate H. Beryllium carbonate

8. Write the chemical formula for the following ionic compounds:

A. Copper(II) chloride B. Magnesium Iodide

C. Iron(III) Phosphate D. Iron (III) perchlorate

E. Ammonium oxide F. Potassium fluoride

G. Scandium sulphide H. Chromium(II) bromide

9. A new element has been discovered! It is called Reallystinkium (it smells simply aweful). The chemical symbol is Rs.

Reallystinkium forms an ionic compound with chlorine with the chemical formula RsCl3.

A. How many electrons are in the valence shell of a neutral Reallystinkium ion?

B. What is the ionic charge of a stable reallysinkium ion?

C. What is the chemical formula of the compound formed between reallystinkium and oxygen?

D. What is smallest possible atomic number for reallystinkium?