

Physical Science 10
Chemistry Exam Review Chapter 5

1. Define and give an example of an atom, element and compound

2. Draw each of the following Bohr Diagrams

a) Al

b) C

c) Mg^{+2}

d) N^{3-}

e) Cl^{1-}

3. Write the names of the following molecular compounds:

a) CO_2 _____

b) N_2O_5 _____

c) PF_5 _____

d) NH_3 _____

e) CCl_4 _____

4. Write the formulas for the following molecular compounds:

a) dinitrogen monoxide _____

b) diphosphorous hexabromide _____

c) sulfur dioxide _____

d) silicon tetrahydride _____

e) nitrogen diselenide _____

5. Balance the following equations

a) ____ Br_2 + ____ K_2S → ____ KBr + ____ S_8

b) ____ C_8H_{18} + ____ O_2 → ____ CO_2 + ____ H_2O

c) ____ $NaCl$ → ____ Na + ____ Cl_2

d) ____ Na_2CO_3 + ____ $CaCl_2$ → ____ $CaCO_3$ + ____ $NaCl$

e) ____ Fe_2O_3 → ____ Fe + ____ O_2

f) ____ Al + ____ HCl → ____ H_2 + ____ $AlCl_3$

g) ____ Au + ____ HNO_3 + ____ HCl → ____ $AuCl_3$ + ____ NO + ____ H_2O

6. Write the names of the following ionic compounds:

a) LiCl _____

b) Mg_3P_2 _____

c) $\text{Ba}(\text{NO}_3)$ _____

d) K_3PO_4 _____

e) CsOH _____

f) $\text{Ca}_3(\text{PO}_4)_2$ _____

g) FeO _____

h) PbO_2 _____

7. Write the formulas for the following ionic compounds:

a) barium hydroxide _____

b) iron (II) fluoride _____

c) calcium sulfide _____

d) copper (I) sulfate _____

e) cobalt (III) iodide _____

f) aluminum oxide _____

g) sodium carbonate _____

h) iron (III) nitrate _____