Quiz 4A

1. Complete the following table (14 points):

|  |  |  |
| --- | --- | --- |
| Compound Formula | Ionic, Covalent, Acid, or Hydrate | Compound Name |
| BeCO3 | Ionic | Beryllium carbonate |
| HBr (aq) | Acid | Hydrobromic acid |
| V(BrO2)3 | Ionic | Vanadium(III) bromite |
| N2O5 | Covalent | Dinitrogen pentaoxide |
| CuCl2 •2 H2O | Hydrate | Copper(II) chloride dihydrate  Cupric chloride dihydrate |
| XeF6 | Covalent | Xenon hexafluoride |
| Cd3N2 | Ionic | Cadmium nitride |

1. State the number of electrons that must be gained by atoms of each of the following elements to acquire a noble gas electron configuration (2 points):
   1. Cl \_\_\_\_\_1\_\_\_\_\_
   2. O \_\_\_\_\_2\_\_\_\_\_
2. State the number of electrons that must be lost by atoms of each of the following elements to acquire a noble gas electron configuration (2 points):
   1. Na \_\_\_\_1\_\_\_\_\_\_
   2. Sr \_\_\_\_\_2\_\_\_\_\_
3. What gas will you be producing in this week’s experiment (2 points)?

Oxygen gas

(Carbon dioxide and sulfur dioxide gases are also produced to a lesser extent.)

Quiz 4B

1. What gas will you be producing in this week’s experiment (2 points)?

Oxygen gas

(Carbon dioxide and sulfur dioxide gases are also produced to a lesser extent.)

1. State the number of electrons that must be gained by atoms of each of the following elements to acquire a noble gas electron configuration (2 points):
   1. F \_\_\_\_\_1\_\_\_\_\_
   2. N \_\_\_\_\_3\_\_\_\_\_
2. State the number of electrons that must be lost by atoms of each of the following elements to acquire a noble gas electron configuration (2 points):
   1. Mg \_\_\_\_\_2\_\_\_\_\_
   2. Li \_\_\_\_1\_\_\_\_\_\_
3. Complete the following table (14 points):

|  |  |  |
| --- | --- | --- |
| Compound Formula | Ionic, Covalent, Acid, or Hydrate | Compound Name |
| NiS | Ionic | Nickel(II) sulfide |
| HI (aq) | Acid | Hydroiodic acid |
| Al(NO3)­3 | Ionic | Aluminum nitrate |
| IBr3 | Covalent | Iodine tribromide |
| MgSO4•7 H2O | Hydrate | Magnesium sulfate heptahydrate |
| P4O10 | Covalent | Tetraphosphorus decaoxide |
| Mg3(PO4)2 | Ionic | Magnesium phosphate |