

Name: \_\_\_\_\_

**SCH 3U – Nomenclature Quiz #3**

Provide names or formula as required. If more than one name is possible, provide both the I.U.P.A.C. name and the OUS/IC name:

|               |                        |                |
|---------------|------------------------|----------------|
| $K_2S$        | potassium sulphide     | $Li_3PO_4$     |
| $K_2SO_4$     | potassium sulphate     | $Pb(ClO_4)_2$  |
| $K_2SO_3$     | potassium sulphite     | $Sn(ClO_3)_4$  |
| $Na_3PO_4$    | sodium phosphate       | $Sb_2S_5$      |
| $Ag_2CO_3$    | silver carbonate       | $Co(NO_3)_3$   |
| $Mg(NO_3)_2$  | magnesium nitrate      | $Fe_2(CO_3)_3$ |
| $Cu(ClO_3)_2$ | copper(II) chlorate    | $BiCl_5$       |
|               | cupric chlorate        | $Na_3PO_3$     |
| $NiSO_4$      | nickel(II) sulphate    | $Hg(CN)_2$     |
|               | nickelous sulphate     | $Fe(ClO)_2$    |
| $Zn(ClO)_2$   | zinc hypochlorite      | $CS_2$         |
| $V_2(CO_3)_5$ | vanadium(V) carbonate  | $Au_2(SO_4)_3$ |
| $MnSO_3$      | manganese(II) sulphite | $P_2(CO_3)_3$  |
| $Fe(ClO_2)_2$ | iron(II) chlorite      | $Pb(IO_4)_4$   |
|               | ferrous chlorite       | $Sn(OH)_2$     |
| $Au(NO_3)_3$  | gold(III) nitrate      | $MnO_2$        |
|               | auric nitrate          | $Au_2CO_3$     |
| $Sc(NO_2)_3$  | scandium nitrite       | $N_2O_5$       |
| $CrSO_4$      | chromium(II) sulphate  | $Fe_2(SO_4)_3$ |
| $Cr(SO_4)_3$  | chromium(VI) sulphate  | $(NH_4)_3PO_4$ |

Fill in the following table to show the oxy-anions as learned in class. Be sure to show the formula of each ion, the charge carried by each ion and the correct name for each ion. In the last row along the bottom, show the three other polyatomic ions we have learned (formula charge and name).

|   |                               |                                 |  |                                 |                                    |                                      |  |                                 |
|---|-------------------------------|---------------------------------|--|---------------------------------|------------------------------------|--------------------------------------|--|---------------------------------|
|   |                               |                                 |  |                                 | $\text{ClO}_4^{1-}$<br>perchlorate |                                      |  | $\text{IO}_4^{1-}$<br>periodate |
| $\text{CO}_3^{2-}$<br>carbonate         | $\text{NO}_3^{1-}$<br>nitrate | $\text{PO}_4^{3-}$<br>phosphate | $\text{SO}_4^{2-}$<br>sulphate         | $\text{ClO}_3^{1-}$<br>chlorate | $\text{BrO}_3^{1-}$<br>bromate     | $\text{IO}_3^{1-}$<br>iodate         |  |                                 |
|   | $\text{NO}_2^{1-}$<br>nitrite | $\text{PO}_3^{3-}$<br>phosphite | $\text{SO}_3^{2-}$<br>sulphite         | $\text{ClO}_2^{1-}$<br>chlorite |                                    |                                      |  |                                 |
|   |                               |                                 |  |                                 | $\text{ClO}^{1-}$<br>hypochlorite  |                                      |  |                                 |
| $\text{NH}_4^{1+} \rightarrow$ ammonium |                               |                                 | $\text{OH}^{1-} \rightarrow$ hydroxide |                                 |                                    | $\text{CN}^{1-} \rightarrow$ cyanide |  |                                 |