NAME Key

CHEM 1301/ Homework 6

1. Classify each compound as Type 1 Ionic or Type 2 Ionic:

Formula	*Type?*	*Formula*	*Type?*
$Ba(OH)_2$	Type 1	Li_2CO_3	1
PbO	2	NaCl	1
$Pb(NO_2)_3$	2	TiO_2	2
Al_2O_3	1	NH_4NO_3	1

2. Name the following Type 1 Ionic Compounds:

NaOH	sodium hydroxide
K_3N	potassium nitride
$SrCl_2$	strontium chloride
KI	potassium iodide
$InPO_4$	indium phosphate or $InPO_3$ indium phosphite
$Ga_2(CO_3)_3$	

you don't have this on your chart, so I will take either!

3. Write the formulas for the following Type 1 ionic compounds:

Sodium sulfide	Na_2S
Strontium chloride	$SrCl_2$
Magnesium carbonate	$MgCO_3$
Aluminum nitrate	$Al(NO_3)_3$
Cesium bromide	$CsBr$
Calcium cyanide	$Ca(CN)_2$

4. Name the following Type 2 Ionic Compounds:

TiO_2	titanium (IV) oxide OR Titanium (II) peroxide
$MnCO_3$	manganese (II) carbonate
$Fe(NO_3)_3$	iron (III) nitrate
Cu_3N_2	copper (II) nitride
V_2S_5	vanadium (V) sulfide
CuCl	copper (I) chloride

5. Write the formulas for the following Type 2 ionic compounds:

Chromium (II) Nitrate	$Cr(NO_3)_2$
Tungsten (III) Carbonate	$W_2(CO_3)_3$
Iron(II) fluoride	FeF_2
Lead(II) chromate	$PbCrO_4$
Cobalt(IV) phosphate	$Co_3(PO_4)_4$
Bismuth(V) nitrite	$Bi(NO_2)_5$

6. Classify each compound as Type 1 Ionic ,Type 2 Ionic, or Covalent:

Formula	*Type?*	*Formula*	*Type?*
$Ca(OH)_2$	Ionic T1	$FeCO_3$	Ionic T2
N_2O	Covalent	CO_2	covalent
ClO_2	Covalent	SnO_2	Ionic T2
$Al(NO_3)_3$	Ionic T1	NaF	Ionic T1

7. Name the following Covalent/Molecular Compounds:

N_2O_4	dinitrogen tetroxide
SO_3	sulfur trioxide
CCl_4	calcium tetrachloride
P_2O_5	diphosphorus pentoxide
ClBr	chlorine monobromide
OF_2	oxygen difluoride

8. Write the formulas for the following covalent/molecular compounds.

selenium dichloride	$SeCl_2$
carbon tetrabromide	CBr_4
dihydrogen sulfide	H_2S
dinitrogen pentoxide	N_2O_5
sulfur hexafluoride	SF_6
phosphorus trichloride	PCl_3