SNC2D1 **Binary Ionic Compounds** **Name:**

Part A: Binary Ionic Compounds – I

1. Write the chemical formula for the following binary ionic compounds.

a) calcium iodide CaI_2

b) barium hydride BaH_2

c) magnesium fluoride MgF_2

d) sodium nitride Na_3N

e) lithium fluoride LiF

f) silver sulfide Ag_2S

g) sodium bromide $NaBr$

h) magnesium phosphide Mg_3P_2

i) aluminum arsenide $AlAs$

j) barium oxide BaO

k) calcium nitride Ca_3N_2

l) potassium sulfide K_2S

2. Name the following binary ionic compounds.

a) KCl Potassium Chloride

b) Na_2O Sodium Oxide

c) CaO Calcium Oxide

d) $MgBr_2$ Magnesium Bromide

e) LiH Lithium Hydride

f) ZnS Zinc Sulfide

g) ~~ZnS~~

h) AlH_3 Aluminum Hydride

i) BaO Barium Oxide

j) Al_2S_3 Aluminum Sulfide

k) SrF_2 Strontium Fluoride

l) MgI_2 Magnesium Iodide

Part B: Binary Ionic Compounds – II

3. Write the chemical formula for the following binary ionic compounds.

a) copper (II) iodide CuI_2

b) iron (II) sulfide FeS

c) gold (III) chloride $AuCl_3$

d) lead (IV) oxide PbO_2

e) manganese (II) fluoride MnF_2

f) iron (III) oxide Fe_2O_3

g) copper (I) sulfide Cu_2S

h) tin (IV) bromide $SnBr_4$

i) mercury (I) iodide HgI

j) manganese (IV) oxide MgO

k) nickel (II) phosphide Ni_3P_2

l) antimony (V) bromide SbB_5

4. Name the following binary ionic compounds.

a) $FeCl_3$ Iron (III) Chloride

b) Cu_3P Copper (I) Phosphide

c) $MnSe_2$ Manganese (IV) Selenide

d) Au_2O Gold (I) Oxide

e) SnO_2 Tin (II) Oxide

f) NiS Nickel (II) Sulfide

k) Pb_3P_4 Lead (IV) Phosphide

l) Cu_3N Copper (I) Nitride

m) Co_2O_3 Cobalt (III) Oxide

n) $HgCl_2$ Mercury (II) Chloride

o) MnS Manganese (II) Sulfide

p) AuP Gold (III) Phosphide

Part C - Ternary Ionic Compounds

5. Write the chemical formula for the following ternary ionic compounds.

g) calcium nitrate $CaNO_3$

h) barium hydroxide $Ba(OH)_2$

i) lead (II) carbonate $PbCO_3$

j) sodium nitrite $NaNO_2$

k) ammonium fluoride NH_4F

l) iron (III) sulfate $Fe_2(SO_4)_3$

k) sodium bicarbonate $NaHCO_3$

l) manganese (IV) oxalate $Mn(C_2O_4)_2$

m) aluminum sulfite $Al_2(SO_3)_3$

n) potassium fluorate KFO_3

o) nickel (II) bromate $Ni(BrO_3)_2$

p) silver chlorate $AgClO_2$

6. Name the following ternary ionic compounds.

g) KNO_3 Potassium Nitrate

h) Na_2SO_3 Sodium Sulfite

i) $Pb(CO_3)_2$ Lead (IV) Carbonate

j) $CuOH$ Copper Hydroxide

k) $Ca_3(PO_4)_2$ Calcium Phosphate

l) ZnC_2O_4 Zinc Oxalate

k) $Sn_3(PO_3)_2$ Tin (II) Phosphite

l) Hg_2SO_4 Mercury Sulfate

m) $NaC_2H_3O_2$ Sodium Acetate

n) $MnCrO_4$ Manganese (III) Chromate

o) $Ba(ClO_3)_2$ Barium Chlorate

p) $AuOH$ Gold (I) Hydroxide