

1. Name the following molecular (covalent) compounds. ( nm-nm and prefixes) (3 pts)

- a.  $\text{SeO}_2$  selenium dioxide
- b.  $\text{N}_2\text{Cl}_4$  dinitrogen tetrachloride
- c.  $\text{Br}_2\text{F}_5$   dibromium pentafluoride

2. Write the formulas for the following molecular (covalent) compounds. (3 pts)

- a. iodine monochloride ICI
- b. tetraphosphorous hexasulfide  $\text{P}_4\text{S}_6$
- c. boron trichloride  $\text{BCl}_3$

3. Write the formulas for the following ionic compounds. ( mn-nm) (10 pts) *show work*

Name	Formula
magnesium oxide	$\text{Mg}^{+2} \text{O}^{-2} \rightarrow \text{MgO}$
aluminum oxide	$\text{Al}^{+3} \text{O}^{-2} \rightarrow \text{Al}_2\text{O}_3$
manganese (IV) oxide	$\text{Mn}^{+4} \text{O}^{2-} \rightarrow \text{Mn}_2\text{O}_4 \rightarrow \text{MnO}_2$
mercury (II) sulphide	$\text{Hg}^{+2} \text{S}^{2-} \rightarrow \text{Hg}_2\text{S}_2 \rightarrow \text{HgS}$
chromium(III)chloride	$\text{Cr}^{+3} \text{Cl}^- \rightarrow \text{CrCl}_3$
cadmium nitride	$\text{Cd}^{+2} \text{N}^{-3} \rightarrow \text{Cd}_3\text{N}_2$
gallium nitrite	$\text{Ga}^{+3} (\text{NO}_2)^- \rightarrow \text{Ga}(\text{NO}_2)_3$
nickel (II) acetate <i>or Ni(CH<sub>3</sub>COO)<sub>2</sub></i>	$\text{Ni}^{+2} \text{C}_2\text{H}_3\text{O}_2^- \rightarrow \text{Ni}(\text{C}_2\text{H}_3\text{O}_2)_2$
silver sulfate	$\text{Ag}^+ \text{SO}_4^{-2} \rightarrow \text{Ag}_2\text{SO}_4$
platinum (IV) phosphate	$\text{Pt}^{+4} \text{PO}_4^{3-} \rightarrow \text{Pt}_3(\text{PO}_4)_4$