

Chapter Seven Review

I. Identify each of the following compounds as either ionic or covalent. Name them.

- C a. N_2O_3 dinitrogen trioxide
- I b. $NaHCO_3$ sodium hydrogen carbonate
- C c. SiO_2 silicon dioxide
- I d. $Ba_3(PO_4)_2$ barium phosphate
- I e. Li_2SO_4 lithium sulfate
- I f. Mn_2O_3 manganese (III) oxide
- C g. PBr_5 phosphorus pentabromide
- I h. $Fe(MnO_4)_3$ iron (III) permanganate
- C i. CS_2 carbon disulfide
- I j. $NaBr$ sodium bromide

II. Identify the following compounds as either ionic or covalent. Write the formula of the following compounds:

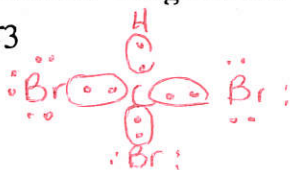
- I a. Magnesium phosphate $Mg_3(PO_4)_2$
- C b. Carbon tetrachloride CCl_4
- I c. Strontium nitride Sr_3N_2
- I d. Manganese (II) oxide MnO $Mn^{+2} O^{-2}$
- I e. Iron (III) sulfite $Fe_2(SO_3)_3$
- I f. Potassium oxalate $K_2C_2O_4$
- I g. Aluminum Iodide AlI_3
- C h. Dinitrogen pentoxide N_2O_5
- C i. Sulfur dioxide SO_2
- C j. tetraphosphorus heptaoxide P_4O_7

III. Identify the following as either ionic or covalent:

- I a. Substance has melts at $450^\circ C$; it is a crystalline structure; and when in solution it conducts electricity.
- C b. Substance melts at $100^\circ C$; it is malleable and does not conduct electricity.

IV. Lewis Structures: Diagram the compound using Lewis Structures

a. $CHBr_3$



b. $NaCl$



c. PF_3



Name the following ionic compounds

HgCl mercury (I) chloride

Ag₂SO₄ silver sulfate

Ca(OH)₂ calcium hydroxide

CuSO₄ copper (II) sulfate

Fe₂O₃ iron (III) oxide

Cu₂O copper (I) oxide

MgCl₂ magnesium chloride

SnF₄ tin (IV) fluoride

CsBr cesium bromide

CaBr₂ calcium bromide

(NH₄)₂S ammonium sulfide

PbCl₂ lead (II) chloride

Ni₂O₃ nickel (III) oxide

AlBr₃ aluminum bromide

MnO₂ manganese (IV) oxide

ZnS zinc sulfide

BaBr₂ barium bromide