

Sections: Write all answers on a separate sheet of paper – **In Order!**

A. From the formulas, **write the names** for the following **Type I compounds**:

- | | | | | |
|--------------------------------------|--------------------|-----------------------|-------------------------------------|---------------------------------------|
| 1. SrO | 2. BF ₃ | 3. Li ₃ As | 4. AlPO ₄ | 5. NaBr |
| 6. (NH ₄) ₃ P | 7. CaS | 8. GaN | 9. Sr ₂ SiO ₄ | 10. In(VO ₃) ₃ |

B. From the names, **write the formulas** for the following **Type I compounds**:

- | | |
|---------------------------|--------------------------|
| 1. ammonium carbonate | 6. cesium iodide |
| 2. potassium oxide | 7. gallium arsenide |
| 3. barium carbide | 8. aluminum citrate |
| 4. thallium pyrophosphate | 9. calcium orthosilicate |
| 5. radium selenide | 10. magnesium silicide |

C. From the formulas, **write the names** for the following **Type II compounds**:

- | | | | | |
|-----------------------------------|---|---|----------------------|---|
| 1. AgCl | 2. Cu ₃ P ₂ | 3. Co ₂ (ZnO ₂) ₃ | 4. SnF ₂ | 5. Au ₃ N |
| 6. Sb ₂ S ₅ | 7. Au ₅ (P ₃ O ₁₀) ₃ | 8. Pt ₂ Fe(CN) ₆ | 9. FeCl ₂ | 10. Bi ₂ (WO ₄) ₅ |

D. From the names, **write the formulas** for the following **Type II compounds**:

- | | |
|---------------------------|----------------------------|
| 1. palladium (II) sulfate | 6. gold (I) bromide |
| 2. ferric oxide | 7. aurous oxalate |
| 3. cobaltous aluminate | 8. platinum (IV) phthalate |
| 4. stannic carbide | 9. antimony (III) sulfide |
| 5. plumbous pyrophosphate | 10. zinc (II) fluoride |

E. From the formulas, **write the names** for the following **Type III compounds**:

- | | | | | |
|-----------------------------------|-------|----------------------------------|----------------------------------|-----------------------------------|
| 1. N ₂ O | 2. CO | 3. IF ₅ | 4. N ₂ O ₃ | 5. BF ₃ |
| 6. Cl ₂ O ₇ | 7. NO | 8. P ₄ O ₆ | 9. N ₂ O ₅ | 10. I ₂ O ₇ |

F. From the names, **write the formulas** for the following **Type III compounds**:

- | | |
|------------------------------|-----------------------------|
| 1. nitrogen trichloride | 6. dihydrogen monoxide |
| 2. dichlorine heptoxide | 7. dinitrogen tetrachloride |
| 3. carbon dioxide | 8. carbon tetraiodine |
| 4. phosphorous pentachloride | 9. dicarbon trichloride |
| 5. nitrogen monoxide | 10. diboron trioxide |

G. From the formulas, **write the names** for the following **acids**:

- | | | | | |
|------------------------------------|---------------------|-----------------------------------|-----------------------------------|-----------------------|
| 1. HBr | 2. H ₂ S | 3. HBrO ₂ | 4. H ₂ SO ₄ | 5. HCl |
| 6. H ₂ CrO ₄ | 7. HIO ₄ | 8. H ₃ PO ₄ | 9. HF | 10. HClO ₂ |

H. From the names, **write the formulas** for the following **acids**:

- | | |
|--------------------|-----------------------|
| 1. sulfurous acid | 6. hydrosulfuric acid |
| 2. carbonic acid | 7. hydrocyanic acid |
| 3. hydroiodic acid | 8. permanganic acid |
| 4. nitric acid | 9. iodous acid |
| 5. nitrous acid | 10. dichromic acid |

I. From the formulas, **write the names** for the following **miscellaneous compounds**:

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|--|--------------------------------------|-----------------------------------|--|---|
| 1. P ₄ O ₁₀ | 2. H ₃ PO ₄ | 3. MgS | 4. Ni ₃ (BO ₃) ₂ | 5. Rb ₂ C ₇ H ₅ O ₃ |
| 6. H ₂ C ₂ H ₃ O ₂ | 7. (Hg ₂) ₃ P | 8. N ₂ Br ₄ | 9. GaI ₃ | 10. Bi ₂ O ₅ |

J. From the names, **write the formulas** for the following **miscellaneous compounds**:

- | | |
|------------------------|--------------------------|
| 1. dinitrogen monoxide | 6. ferrous nitride |
| 2. mercuric silicide | 7. silicon carbide |
| 3. sulfurous acid | 8. plumbous ferricyanide |
| 4. radium thiocyanate | 9. oxalic acid |
| 5. cesium iodide | 10. cupric zincate |

Answers

- A.
- | | |
|-----------------------|----------------------------|
| 1. strontium oxide | 6. ammonium phosphide |
| 2. boron fluoride | 7. calcium sulfide |
| 3. lithium arsenide | 8. gallium nitride |
| 4. aluminum phosphate | 9. strontium orthosilicate |
| 5. sodium bromide | 10. indium vanadate |
- B.
- | | | | | |
|---------------------------------|-------------------------|---------------------------------------|--|----------------------------|
| 1. $(\text{NH}_4)_2\text{CO}_3$ | 2. K_2O | 3. Ba_2C | 4. $\text{Tl}_4(\text{P}_2\text{O}_7)_3$ | 5. RaSe |
| 6. CsI | 7. GaAs | 8. $\text{AlC}_6\text{H}_5\text{O}_7$ | 9. Ca_2SiO_4 | 10. Mg_2Si |
- C.
- | | |
|--------------------------------|---------------------------|
| 1. silver (I) chloride | |
| 2. copper (II) phosphide | or cupric phosphide |
| 3. cobalt (III) zincate | or cobaltic zincate |
| 4. tin (II) fluoride | or stannous fluoride |
| 5. gold (I) nitride | or aurous nitride |
| 6. antimony (V) sulfide | |
| 7. gold (III) tripolyphosphate | or auric tripolyphosphate |
| 8. platinum (II) ferrocyanide | |
| 9. iron (II) chloride | or ferrous chloride |
| 10. bismuth (V) tungstate | |
- D.
- | | | | | |
|--------------------|--------------------------------------|--|----------------------------|--------------------------------------|
| 1. PdSO_4 | 2. Fe_2O_3 | 3. $\text{Co}_3(\text{AlO}_3)_2$ | 4. SnC | 5. $\text{Pb}_2\text{P}_2\text{O}_7$ |
| 6. AuBr | 7. $\text{Au}_2\text{C}_2\text{O}_4$ | 8. $\text{Pt}(\text{C}_8\text{H}_4\text{O}_4)_2$ | 9. Sb_2S_3 | 10. ZnF_2 |
- E.
- | | |
|-------------------------|------------------------------|
| 1. dinitrogen monoxide | 6. dichlorine heptoxide |
| 2. carbon monoxide | 7. nitrogen monoxide |
| 3. iodine pentafluoride | 8. tetraphosphorous hexoxide |
| 4. dinitrogen trioxide | 9. dinitrogen pentoxide |
| 5. boron trifluoride | 10. diiodine heptoxide |
- F.
- | | | | | |
|-------------------------|----------------------------|------------------|----------------------------|----------------------------|
| 1. NCl_3 | 2. Cl_2O_7 | 3. CO_2 | 4. PCl_5 | 5. NO |
| 6. H_2O | 7. N_2Cl_4 | 8. Cl_4 | 9. C_2Cl_3 | 10. B_2O_3 |

- G.
- | | | | |
|----|--------------------|-----|-------------------|
| 1. | hydrobromic acid | 6. | chromic acid |
| 2. | hydrosulfuric acid | 7. | periodic acid |
| 3. | bromous acid | 8. | phosphorous acid |
| 4. | sulfuric acid | 9. | hydrofluoric acid |
| 5. | hydrochloric acid | 10. | chlorous acid |
- H.
- | | | | | |
|----------------------------|----------------------------|--------------------|-------------------|---------------------------------------|
| 1. H_2SO_3 | 2. H_2CO_3 | 3. HI | 4. HNO_3 | 5. HNO_2 |
| 6. H_2S | 7. HCN | 8. HMnO_4 | 9. HIO_2 | 10. $\text{H}_2\text{Cr}_2\text{O}_7$ |
- I.
- | | | | | |
|----|---------------------------|-----|-------------------------|------------------------|
| 1. | tetraphosphorous decoxide | 6. | acetic acid | |
| 2. | phosphoric acid | 7. | mercury (I) phosphide | or mercurous phosphide |
| 3. | magnesium sulfide | 8. | dinitrogen tetrabromide | |
| 4. | nickel (II) borate | 9. | gallium iodide | |
| 5. | rubidium salicylate | 10. | bismuth (V) oxide | |
- J.
- | | | | | |
|----------------------------|---------------------------|--|-------------------------------------|-------------------------------|
| 1. H_2O | 2. Hg_2Si | 3. H_2SO_3 | 4. $\text{Ra}(\text{SCN})_2$ | 5. CsI |
| 6. Fe_3N_2 | 7. SiC | 8. $\text{Pb}_3(\text{Fe}(\text{CN})_6)_2$ | 9. $\text{H}_2\text{C}_2\text{O}_4$ | 10. Cu_2ZnO_2 |