Naming Molecular Compounds

STUDENT PRACTICE WORKSHEET

Name: _____ Date: _____

Directions: Circle the best answer for 1–6. Show your full reasoning and units for 7–8. Compare with the separate key after completing the page.

Part A — Concept checks

1. **Name CO.**

   A. carbon oxide B. carbon monoxide C. carbon dioxide D. cobalt oxide

2. **What is the formula of phosphorus trichloride?**

   A. PCl B. PCl_3 C. P_3Cl D. PCl_5

3. **Name N_2O_5.**

   A. nitrogen pentoxide B. dinitrogen pentoxide C. dinitrogen oxide D. nitrogen(V) oxide

4. **Which compound commonly uses covalent prefixes?**

   A. NaBr B. CaO C. CO_2 D. $MgCl_2$

5. **What does hexa- indicate?**

   A. 3 B. 4 C. 5 D. 6

6. **Name SO_3.**

   A. sulfur trioxide B. sulfur oxide C. sulfur dioxide D. sulfur(VI) chloride

Part B — Application and explanation

7. Name N_2O_4.

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8. Explain why this guideline matters, with an example of what could go wrong if you ignore it: Do not use Greek prefixes for a simple ionic formula such as $CaCl_2$, which is calcium chloride.

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REFERENCE RELATIONSHIP

binary covalent name = prefix + first element + prefix + second-element -ide