

Test 1, Chemistry 121
Spring 2006

Name: _____

Instructions: You have 75 minutes to complete this 100-point exam. You may use a simple scientific calculator. No programmable calculators allowed.

I. Multiple Choice (10 pts) Circle the best answer.

- In a balanced chemical equation, what is balanced?
 - Atoms
 - Molecules
 - Density
 - Particles
- Which of the following elements has properties similar to iron?
 - Ti
 - Mn
 - Cu
 - Ru
- What is the formula of a compound of hydrogen and arsenic?
 - ArH₈
 - ArH₃
 - AsH₅
 - AsH₃
- How many significant figures are there in 0.0250900?
 - 3
 - 4
 - 6
 - 8
- A thermometer reads 58°C, what is this in Kelvin?
 - 215 K
 - 331 K
 - 215 K
 - 0 K

II. Chemical Formulas, Naming, Atomic Notation and the Periodic Table

6. (20 pts) Complete the table by placing symbols, formulas and names in the blanks.

Cation	Anion	Name	Formula
		ammonium bromide	
Mg ²⁺	PO ₄ ³⁻		
			NaC ₂ H ₃ O ₂
	Cr ₂ O ₇ ²⁻		Zn ₂ Cr ₂ O ₇

7. (20 pts) Name the following:

- ClF₃ _____
- NCl₃ _____
- TiSO₄ _____
- Ca(NO₃)₂ _____
- KI _____
- Al₂S₃ _____
- P₂O₅ _____
- (NH₄)₂SO₃ _____
- SiCl₄ _____
- SeO₂ _____

8. (10 pts) Fill in the blanks:

Symbol	Name	Protons	Neutrons	Electrons	Mass Number
Ni					58
		10	10		

