

Name: Key - Form A

Chemistry 121  
Fall 2005, Test 1  
Test Answer Sheet, Form A

I. Multiple Choice: Clearly CIRCLE the best answer.

1. A B  C D  
2. A B C  D  
3. A B  C D  
4. A  B C D  
5. A  B C D

II. Chemical Formulas, Naming, Atomic Notation and Significant Figures: Fill in the blanks provided.

6a.  $Mn(NO_3)_2$  6f.  $AsO_3$

6b.  $PO_5$  6g.  $AlF_3$

6c.  $BrCl_2$  6h.  $Mg_3N_2$

6d.  $Ca(HSO_4)_2$  6i.  $SiO_2$

6e.  $FeCl_3$  6j.  $SI_4$

7a. sodium sulfide 7f. potassium chromate

7b. diphosphorous tetraoxide 7g. nickel(II) nitrite

7c. cobalt(II) oxide 7h. ammonium sulfite

7d. beryllium phosphide 7i. oxygen difluoride

7e. selenium dichloride 7j. dinitrogen sulfide

8a. K

8d. Ge

8b. 19

8e. Germanium

8c. 21

8f. 32

9a. 4

9b. 3

9c. 2

9d. 3

III. Calculations: Show all work. Partial credit will be given for correct work. If I cannot read the work, it will not be graded.

10. (10 pts)

$$1.590 \text{ gal} \times \frac{3.784 \text{ L}}{1 \text{ gal}} \times \frac{1000 \text{ mL}}{1 \text{ L}} = \boxed{6017 \text{ mL}}$$

11. (15 pts)

$$\frac{890 \text{ in}}{8} \times \frac{60 \cancel{s}}{1 \text{ min}} \times \frac{60 \text{ min}}{1 \text{ hr}} \times \frac{2.54 \text{ cm}}{1 \text{ in}} \times \frac{1 \text{ m}}{100 \text{ cm}} = \boxed{8.1 \times 10^4 \frac{\text{m}}{\text{hr}}}$$

12. (15 pts)

$$1.50 \text{ cg} \times \frac{1 \text{ g}}{100 \text{ cg}} \times \frac{1 \text{ mL}}{19.2 \text{ g}} = \boxed{7.81 \times 10^{-4} \text{ mL}}$$

IV. BONUS QUESTION (worth 10 pts): In 4 – 6 complete sentences, describe the discovery of the atomic nucleus.

See "Facets of Chemistry"  
in Brady & Sines