EXERCISE 5

Chem 100
Due in lab
10 points

Name _	KEY		
	(last)	(first)	

Lab Section #_____ Lab Instructor _____

A. Electronic Configuration. Diagram the following atoms, showing the number and location of protons and neutrons, and showing electrons in proper shells. (Note: you may not need to use all the shells drawn.)

Please note: on this exercise the nuclear symbol is written a little bit differently. This is another correct alternative for writing the nuclear symbol:

E = element symbol

 $_z$ E A

A = mass number

Z = atomic number

- 1. 42Mo^{94} $\left(\begin{array}{c} 42 \text{ p} \\ 52 \text{ n} \end{array}\right) \left(\begin{array}{c} 2 \text{ } \end{array}\right) \left(\begin{array}{c} 8 \text{ } \end{array}\right) \left(\begin{array}{c} 18 \text{ } \end{array}\right) \left(\begin{array}{c} 12 \text{ } \end{array}\right)$
- 2. $_{14}Si^{30}$ $\underbrace{ \begin{bmatrix} 14 \\ 1b \end{bmatrix} }_{n}$ $\underbrace{ 2 }_{n}$ $\underbrace{ 8 }_{n}$ $\underbrace{ 4 }_{n}$ $\underbrace{ 4 }_{n}$ $\underbrace{ 4 }_{n}$
- 3. $_{27}\text{Co}^{59}$ $\left(\begin{array}{c} 27 \\ \hline 32 \\ \end{array}\right)$ $\left(\begin{array}{c} 2 \\ \hline \end{array}\right)$
- 5. 34Se⁸⁰ (34 p 2) 8) 18) (5) (6)
- 6. $54 \times e^{134}$ $\left(\begin{array}{c} 54 \\ 80 \\ \end{array}\right)$ $\left(\begin{array}{c} 2 \\ 8 \\ \end{array}\right)$ $\left(\begin{array}{c} 8 \\ \end{array}\right)$ $\left(\begin{array}{c} 18 \\ \end{array}\right)$ $\left(\begin{array}{c} 18 \\ \end{array}\right)$