PSC-4012 Quiz #1

Name:

Date:

1. Indicate whether each of the following statements is true (T) or false (F):

a) The ratio of a neutron's mass to an electron's mass is 1840. ____

b) The ratio of a neutron's mass to a proton's mass is 1. ____

c) The mass of an electron is 1840 times less than that of a proton. ____

d) The nucleus of a neutral atom contains the same number of protons and electrons. ____

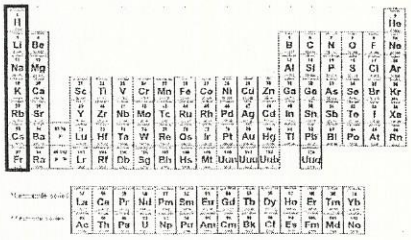
e) The number of protons in an atom is always equal to the number of neutrons. ____

f) A neutron helps to hold the nucleus together. ____

g) The volume of the nucleus is very large relative to the volume of the atom.

h) Electrons travel within well defined energy levels inside the nucleus. ____

i) In the periodic table below, the elements inside the rectangle are Alkali Metals. ____



j) Alkali metals react readily with oxygen and halogens. ____

k) The chemical properties of alkali metals are different from those of alkaline earth metals. ____

l) Nonmetals are poor conductors of electricity. ____

2. Indicate the charge (positive, negative, or neutral) of each of the following:

a) proton _____

b) neutron _____

c) electron _____

3. Circle the letters in front of the characteristics below that apply to metals:

a) shiny

b) ductile

c) malleable

d) conductors of electricity

e) all solid at room temperature

f) found to the right of the staircase on the periodic table.

4. Complete the following table:

electron configuration	family name	period number
2e7e		
2e8e5e		
	Alkali Metal	4
	Noble Gas	3

5. a) Referring to the periodic table, identify which of the following elements are Arsenic isotopes.

Element	Number of protons	Number of neutrons	Number of electrons
A	33	41	36
B	32	40	28
C	33	42	25
D	34	43	36
E	33	43	33
F	35	43	36

Answer: _____

b) Classify the six elements listed above as either neutral atoms, anions, or cations. Write the appropriate letters in the spaces provided.

Neutral atoms	Anions	Cations