Chemistry 115 Name

Dr. Cary Willard

Quiz 6a (20 points) March 25, 2010

1. (2 points) How many electrons are there in an orbital?

2

1. (4 points) Write the complete electron configuration for an atom of potassium.

K 1s2 2s2 2p6 3s2 3p6 4s1

1. (4 points) Write the shorthand electron configuration for an atom of zirconium (Zr).

Zr [Kr] 5s2 4d2

1. (4 points) Circle the larger atom in each of the following pairs
   1. C or Sn
   2. Al or S
2. (3 points) What is meant by the term isoelectronic?

Two species are said to be isoelectronic if they have the same electron configurations.

1. (3 points) Define ionization energy.

Ionization energy is the energy required to remove the outermost electron from an atom or ion.

Chemistry 115 Name

Dr. Cary Willard

Quiz 6a (20 points) March 25, 2010

1. (2 points) How many electrons are there in an orbital?

2

1. (4 points) Write the complete electron configuration for an atom of magnesium.

Mg 1s2 2s2 2p6 3s2

1. (4 points) Write the shorthand electron configuration for an atom of technetium (Tc).

Tc [Kr] 5s2 4d5

1. (4 points) Circle the larger atom in each of the following pairs
   1. Na or Cs
   2. K or Ga
2. (3 points) What is meant by the term isoelectronic?

Two species are said to be isoelectronic if they have the same electron configurations.

1. (3 points) Define ionization energy.

Ionization energy is the energy required to remove the outermost electron from an atom or ion.