Chemistry 115 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dr. Cary Willard

Quiz 7a (20 points) October 27-29, 2009

1. (5 points) Niels Bohr proposed a theoretical model of the hydrogen atom to explain the emission spectrum of hydrogen. Describe using words and pictures how this model explains the line spectra of hydrogen.
2. (2 points) What is the maximum number of electrons that can occupy a p sublevel of an atom?
3. (3 points) Write the complete electron configuration for an atom of sulfur.
   1. (2 points) What is the most commonly formed ion of sulfur?
   2. (3 points) Write the complete electron configuration for the most commonly formed ion of sulfur.
   3. (2 points) What neutral atom is isoelectronic with this sulfur ion?
4. (3 points) Write the shorthand configuration for an atom of iron.

Chemistry 115 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dr. Cary Willard

Quiz 7b (20 points) October 27-29, 2009

1. (5 points) Niels Bohr proposed a theoretical model of the hydrogen atom to explain the emission spectrum of hydrogen. Describe using words and pictures how this model explains the line spectra of hydrogen.
2. (2 points) What is the maximum number of electrons that can occupy a d sublevel of an atom?
3. (3 points) Write the complete electron configuration for an atom of phosphorus.
   1. (2 points) What is the most commonly formed ion of phosphorus?
   2. (3 points) Write the complete electron configuration for the most commonly formed ion of phosphorus.
   3. (2 points) What neutral atom is isoelectronic with this phosphorus ion?
4. (3 points) Write the shorthand configuration for an atom of manganese.

Chemistry 115 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dr. Cary Willard

Quiz 7c (20 points) October 27-29, 2009

1. (5 points) Niels Bohr proposed a theoretical model of the hydrogen atom to explain the emission spectrum of hydrogen. Describe using words and pictures how this model explains the line spectra of hydrogen.
2. (2 points) What is the maximum number of electrons that can occupy an s sublevel of an atom?
3. (3 points) Write the complete electron configuration for an atom of chlorine.
   1. (2 points) What is the most commonly formed ion of chlorine?
   2. (3 points) Write the complete electron configuration for the most commonly formed ion of chlorine.
   3. (2 points) What neutral atom is isoelectronic with this chlorine ion?
4. (3 points) Write the shorthand configuration for an atom of nickel.