Chemistry 115 Name KEY

Dr. Cary Willard

Quiz 7A (20 points) April 2, 2009

1. (2 points) How many protons are in the nucleus or a Osmium (Os) atom.

76

1. (3 points) Show the orbital diagram for an atom of oxygen.

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 1s 2s 2p

1. (3 points) Write the complete electron configuration for an atom of chlorine.

1s2 2s2 2p6 3s2 3p5

1. (3 points) Write the shorthand electronic configuration (as predicted by the periodic table) for an atom of zirconium.

[Kr] 5s2 4d2

1. (3 points) Draw a lewis electron dot structure for silicon?



1. (3 points) How do atom sizes change as you move across the periodic table to the right?

Atoms get smaller as you move across the periodic table to the right.

1. (3 points) Explain the reason for the trend you described in question 6.

As you move to the right the effective nuclear charge increases thus pulling the electrons closer.

Chemistry 115 Name

Dr. Cary Willard

Quiz 7B (20 points) April 2, 2009

1. (2 points) How many protons are in the nucleus or a niobium (Nb) atom.

41

1. (3 points) Show the orbital diagram for an atom of oxygen.

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 1s 2s 2p

1. (3 points) Write the complete electron configuration for an atom of aluminum.

1s2 2s2 2p6 3s2 3p1

1. (3 points) Write the shorthand electronic configuration (as predicted by the periodic table) for an atom of yttrium (Y).

[Kr] 5s2 4d1

1. (3 points) Draw a lewis electron dot structure for nitrogen?



1. (3 points) How do atom sizes change as you move across the periodic table to the right?

Atoms get smaller as you move across the periodic table to the right.

1. (3 points) Explain the reason for the trend you described in question 6.

As you move to the right the effective nuclear charge increases thus pulling the electrons closer.