Chemistry 115 - Name

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Quiz 6a (20 points) October 26, 2008

1. (3 points) How many electrons are allowed in a 5d orbital?

There are 2 electrons allowed in any orbital.

1. (3 points) How many electrons are allowed in a 4p sublevel?

There are 6 electrons allowed in a p sublevel.

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

Cl 1s2 2s2 2p6 3s2 3p5

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

Co 1s2 2s2 2p6 3s2 3p6 4s2 3d7

1. (3 points) Write the shorthand electron configuration for an atom of ruthenium (Ru).

Ru [Kr] 5s2 4d6

1. (3 points) An atom of neon is isoelectronic with a Mg+2 ion. What is meant by this statement?

It means that both particles have the same electronic configuration.

1. (2 points) Write an electron dot diagram for an atom of phosphorus.

