Chemistry 141 Name

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Quiz 7 (20 points) Monday, October 29, 2012

1. (3 points) What is the physical significance of the value ψ2? That is, what information does this value give us?
2. (4 points) What are the possible values of the angular momentum quantum number l ? What does the angular momentum quantum number tell us about an electron?
3. (3 points) Write the complete electron configuration for an atom of silicon.
4. (3 points) Write the shorthand electron configuration for a cobalt (II) ion.
5. (3 points) What is the general trend in ionization energy as you move across a row in the periodic table? Explain.
6. (4 points) Arrange this series in order of increasing atomic radius: Se2–, Sr2+, Br–, Rb+, Kr. Explain your reasoning.