Name:_____
Quiz #6 CHM 115

1) (1 pt)Which of the following atomic radii are ranked correctly from smallest to largest:

A) K < Na < Li

B) Si < P < S

C) F < Cl < Br

D) F < O < H

2) (1 pt) Which valence electrons will experience the greater effective nuclear charge:

$_{11}$Na : [Ne] $3s^1$ or **$_{17}$Cl : [Ne] $3s^2$ $3p^5$**

3) (1 pt) Which of the following is defined INCORRECTLY:

A) Ionization Energy = Minimum energy needed to remove an electron from the atom in the gas phase

B) Electron Affinity = The energy change upon adding an electron to an atom in the gas phase to form an anion.

C) Effective Nuclear Charge = The net positive charge experienced by an electron in a multi-electron atom

D) All are correct

4) (2 pts) Name two of the three types of chemical bond:

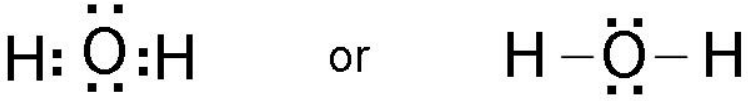
_____Ionic Bond_____

_____Covalent Bond_____ (or Metallic Bond)

5) (1 pt) _____**Lattice**_____ energy stabilizes ionic crystals, and explains why the formation of NaCl(s) is so exothermic.

6) (2 pts) Draw the Lewis symbol for an atom of N:

7) (2 pts) Draw the Lewis symbol for a molecule of H_2O:



Name:_____
Quiz #6 CHM 115

1) (1 pt)Which of the following atomic radii are ranked correctly from smallest to largest:

A) F < O < H

B) F < Cl < Br

C) Si < P < S

D) K < Na < Li

2) (1 pt) Which valence electron(s) will experience the greater effective nuclear charge:

$_{35}$Br : [Ne] 4s^2 4p^5 or $_{19}$K : [Ne] 4s^1

3) (1 pt) _____**Lattice**_____ energy stabilizes ionic crystals, and explains why the formation of NaCl(s) is so exothermic.

4) (2 pts) Name two of the three types of chemical bond:

_____Ionic Bond_____

_____Covalent Bond_____ (or Metallic Bond)

5) (1 pt) Which of the following is defined INCORRECTLY:

A) Ionization Energy = Minimum energy needed to remove an electron from the atom in the gas phase

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C) Effective Nuclear Charge = The net positive charge experienced by an electron in a multi-electron atom

D) All are defined correctly

6) (2 pts) Draw the Lewis symbol for an atom of O:

7) (2 pts) Draw the Lewis symbol for a molecule of NH_3: