

## Homework 06 - Periodic Trends

### Question 1

4 pts

Let X be a hypothetical element. Which of the following would be the largest?

- $X^{2+}$
- $X^{2-}$
- X
- $X^+$
- $X^-$

### Question 2

4 pts

How many valence electrons are in a Kr atom?

- 8
- 0
- 7
- 2

### Question 3

4 pts

The  $P^{2-}$  anion has how many total electrons and how many valence electrons respectively?

- 17, 7
- 16, 6
- 16, 8
- 18, 8
- 17, 8
- 16, 7
- 17, 6

### Question 4

4 pts

Consider the elements lithium, oxygen, fluorine, and neon. Based on their position in the periodic table, which element would you expect to have the GREATEST tendency to attract a shared pair of electrons?

- lithium
- neon
- oxygen
- fluorine

### Question 5

4 pts

The electronegativity of nonmetals is relatively \_\_\_\_\_ as compared to the electronegativity of metals.

- the same
- high
- Depends on the elements being compared.
- low

### Question 6

5 pts

Which of the following elements would be expected to have the highest electronegativity?

- Na
- Al
- N
- He
- C
- P

### Question 7

5 pts

Generally speaking, in the periodic table, electronegativity (decreases, increases) when moving from left to right and (decreases, increases) when moving from top to bottom of the periodic table.

- increases, increases
- decreases, increases
- increases, decreases
- decreases, decreases