

Practice Exam # 3 September 12, 2017

Name _____

1. Perform the following operations:

$$(2.33 \times 10^9) (5.00 \times 10^{16}) =$$

$$\frac{(5.00 \times 10^{-2}) (1.5 \times 10^{11})}{(2.50 \times 10^{24})} =$$

2. Define Ionization Energy

3. Define Electronegativity

4. What is the Z effect ?

5. Circle the one with the larger radius

a. F or I

b. K or Sc

c. Be or Ra

d. Sr or In

6. Circle the one with the larger radius

a. F or F⁻

b. Mg⁺² or Mg

c. Al or Al⁺³

d. O⁻² or O

7. Circle the one with the higher electronegativity

a. Cl or Mg

b. O or N

c. Ne or Br

d. O or F

8. Circle the one with the lower ionization energy

a. Li or Fr

b. Ca or Br

c. F or Br

d. Si or Cl

9. What is the family name of each of the following?

a. bromine _____

b. magnesium _____

c. sodium _____

d. xenon _____

10a. Moving from left to right across the periodic table, the radii of the elements decrease. Why?

10b. Moving from down a group on the periodic table, the radii of the elements increase. Why?

11 a. Cations are smaller than the atoms from which they are formed. Give two reasons why this

11b. Anions are larger than the atoms from which they are formed. Explain why.

12 . Write 1.45×10^5 as an ordinary number _____

Write 1.45×10^{-3} as an ordinary number _____

Write 95500000 in scientific notation _____

Write 0.0000955 in scientific notation _____