Name: _____ Period: _____ Date:_____

Structure and Properties of Matter Unit Test

I. Multiple Choice: Select the letter of which best answers the question.

1. How many atoms of sodium are found in the compound $2Na_2CO_3$?

a) 2
b) 4
c) 6
d) 12

2. What type of ion does iodine form?

a) Positive one
b) Positive two
c) Negative one
d) Negative two

3. Which of the following sentences is true about isotopes?

a) They have the same number of protons but a different number of electrons.
b) They have the same number of protons but a different number of neutrons.
c) They have the same number of protons and neutrons.
d) They have the same number of protons and electrons.

4. Rutherford's experiments into the atom suggested that...

a) Atoms were largely made up of empty space
b) Atoms had a small, dense nucleus
c) Electrons orbited the nucleus
d) All of the above

5. Substances which are made up of more than one type of atom chemically bonded together are known as:

a) Elements and molecules
b) Compounds and molecules
c) Compounds and elements
d) Atoms and compounds

II. Give the orbital notations for:

1. Carbon

2. Magnesium ion

3. Argon

4. Fluoride ion

5. Aluminium metal

Copyright © iTeachly.com

iTeachly

Name: _____ Period: _____ Date:_____

Structure and Properties of Matter Unit Test

III. Write the symbols for each of the following ions:

1. Calcium
2. Bromide
3. Barium
4. Hydrogen
5. Sulfide

IV. Decide if the statement is true or false:

1. Boron is more electronegative than oxygen
2. Potassium has a greater metallic character than Aluminum
3. Boron has a greater atomic radius than fluorine
4. Magnesium has a greater electron affinity that sulfur
5. Phosphorous has a greater ionization energy than sodium

V. Explain how atoms are different from ions

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Copyright © iTeachly.com

iTeachly

Name: _____ Period: _____ Date:_____

Structure and Properties of Matter Unit Test

VI. Explain why isotopes of the same element show the same chemical properties

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

VII. With reference to the forces holding them together, explain how the particles are arranged in solids, liquids and gases.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Copyright © iTeachly.com

iTeachly