

Physical Science Chapter 6

Test Review Game

Question 1

- Fluorine forms a binary compound with lithium. What is the name of this compound?
 - A. lithium fluorine
 - B. lithium fluoride
 - C. fluorine lithium
 - D. fluorine lithide

B

Question 2

- Which of the following elements is a noble gas?
 - A. Ne
 - B. F
 - C. C
 - D. Li

A

Question 3

- Typically, atoms gain or lose electrons to achieve
 - A. ionization
 - B. vaporization
 - C. a stable electron configuration
 - D. an exchange of energy

C

Question 4

- Covalent bonds are made of which of the following?
 - A. only metals
 - B. only nonmetals
 - C. both metals and nonmetals
 - D. all of the above

B

Question 5

- In the name carbon dioxide, the prefix of the second word indicates that a molecule of carbon dioxide contains
 - A. a polyatomic ion
 - B. two oxygen atoms
 - C. two carbon atoms
 - D. an ionic bond

B

Question 6

- In an electron dot diagram, each dot represents a(an) _____.
 - A. neutron
 - B. oxidation number
 - C. proton
 - D. valence electron

D

Question 7

- Which of the following groups contain three elements with stable electron configurations?
 - A. argon, neon, barium
 - B. xenon, neon, boron
 - C. lithium, krypton, argon
 - D. helium, xenon, neon

D

Question 8

- The formation of an ionic bond involves the
 - A. transfer of neutrons
 - B. transfer of protons
 - C. transfer of electrons
 - D. sharing of electrons

C

Question 9

- The compound whose formula is SO_3 is called
 - A. sulfur trioxide
 - B. sulfur oxygen
 - C. monosulfur trioxide
 - D. sulfur oxide

A

Question 10

- In an ionic compound, the attractions between cations and _____ hold the compound together.
 - A. anions
 - B. transition elements
 - C. noble gases
 - D. metals

A

Question 11

- Beryllium and chlorine form a binary ionic compound with a one-to-two ratio of beryllium ions to chloride ions. The formula for the compound is
 - A. BeCl_2
 - B. 2BeCl
 - C. Be_2Cl_2
 - D. Be_2Cl

A

Question 12

- The elements that make up a compound and the exact number of atoms of each element in a unit of the compound can be shown in a _____.

- A. chemical symbol
- B. subscript
- C. superscript
- D. chemical formula

D

Question 13

- What is the total number of atoms in the compound CaClO_3 ?
 - A. 2
 - B. 3
 - C. 4
 - D. 5

D

Question 14

- What is the name of the compound with the formula NaCl?
 - A. chlorine sodium
 - B. sodium chlorate
 - C. sodium chloride
 - D. sodium dichloride

C

Question 15

- What is the correct formula for magnesium oxide?
 - A. MgO
 - B. MgO_2
 - C. Mg_2O_2
 - D. Mg_2O

A

Question 16

- Each molecule of table sugar, $\text{C}_{12}\text{H}_{22}\text{O}_{11}$, contains
 - A. 0 carbon atoms
 - B. 1 atom of carbon
 - C. 6 atoms of carbon
 - D. 12 atoms of carbon

D

Question 17

- An anion has a _____ charge.
 - A. positive
 - B. negative
 - C. neutral
 - D. both positive and negative

B

Question 18

- The name dinitrogen tetroxide tells you that this compound contains
 - A. two nitrogen atoms and two oxygen atoms
 - B. four nitrogen atoms and two oxygen atoms
 - C. two nitrogen atoms and four oxygen atoms
 - D. four nitrogen atoms and four oxygen atoms

C

Question 19

- In the binary ionic compound potassium bromide, KBr, the element that forms cations is
 - A. bromine
 - B. potassium
 - C. potassium bromide
 - D. there is no cation

B

Question 20

- True or False
- Particles formed from the covalent bonding of atoms are called ions.

False

Question 21

- True or False
- When an atom gains or loses electrons, the charged particle that results is called a molecule.

False

Question 22

- True or False
- The formula SO_4^{-2} stands for sulfur oxide.

False

Question 23

- True or False
- An atoms is chemically unstable when its outer energy level contains all the electrons it can hold.

False

Question 24

- True or False
- An element's oxidation number indicates how many electrons the element must gain, lose, or share to become stable.

True

Question 25

- True or False
- In the binary ionic compound lithium iodide, LiI, iodine would form the anions.

True

Question 26

- True or False
- The chemical formula for calcium chloride, CaCl_2 , shows that the compound contains two calcium ions for every chloride ion.

False

Question 27

- True or False
- KBr is the formula for an ionic compound. The fact that neither symbol is followed by a subscript means that there is a one-to-one ratio of ions in the compound.

True

Question 28

- True or False
- In sodium chloride, NaCl, the sodium ions are the cations.

True

Question 29

- True or False
- In the binary ionic compound potassium bromide, KBr, the element that forms cations is bromine.

False

Question 30 (BONUS)

- Match the following. You must get ALL of them right to get the points.

- 1. have a charge of -1
- 2. do not react
- 3. have 6 valence electrons
- 4. have 2 valence electrons
- 5. have a charge of +1

- a. alkali metals
- b. alkaline earth metals
- c. group 16
- d. halogens
- e. noble gases

1. d

2. e

3. c

4. b

5. a