

Name BEY Date _____ Class _____

Ionic and Covalent Bonding Practice Quiz

1. A covalent bond forms between a _____ and a _____.

- a. ☒ nonmetal, nonmetal
b. ☐ metal, metal

- c. ☐ metal, metalloid
d. ☐ metal, nonmetal

2. How many electrons does nitrogen need to become stable?

a. 1

b. 2

☒ c. 3

d. 4

3. Which of the following is an example of an ionic bond?

a. NO_2

b. CO_2

☒ c. KO

d. H_2O

4. Which of the following is the correct name for P_2F_4

a. phosphorus pentafluoride

b. potassium tetrafluoride

c. phosphorus tetrafluoride

☒ d. diphosphorus tetrafluoride

Number	Greek Prefix	Number	Greek Prefix
1	mono	6	hexa
2	di	7	hepta
3	tri	8	octa
4	tetra	9	nona
5	penta	10	deca

5. Covalent bonds occur when two or more atoms _____ electrons.

☒ a. share

b. give away

c. transfer

d. accept

6. Which element is stable and will not give away nor accept electrons?

a. barium

b. oxygen

c. sulfur

☒ d. krypton

7. What is the chemical formula for the bond that forms between lithium and nitrogen?

a. LiN

b. Li_2N

☒ c. Li_3N

d. Li_4N

$\text{Li}^+ \text{N}^{3-}$

8. What is the force of attraction that holds atoms or ions together called?

a. valence electrons

b. ionic compounds

☒ c. chemical bond

d. compound cement

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9. Table salt is formed when an electron is transferred from a sodium to a

- a. metal atom
- ☒ b. chlorine atom
- c. nonmetal atom
- d. positively charged atom

10. When a metal meets a nonmetal, the nonmetal atom becomes

- a. positively charged because it accepts electrons from the metal.
- ☒ b. negatively charged because it accepts electrons from the metal.
- c. negatively charged because it accepts protons from the metal.
- d. Neutral.

11. What can ionic compounds do that covalent compounds can't do when dissolved in water?

- a. make sugar
- b. make a solution
- ☒ c. conduct electricity
- d. make covalent bonds

12. What is the formula of potassium when it gives up its valence electrons?

- ☒ a. K^+
- b. K^{2+}
- c. K^{3+}
- d. K^{4+}

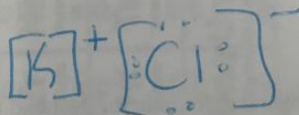
13. What is the charge of a nitrogen anion?

- a. N^-
- b. N^{2-}
- ☒ c. N^{3-}
- d. N^{4-}

14. Which of the following pairs of elements is most likely to form a covalent bond?

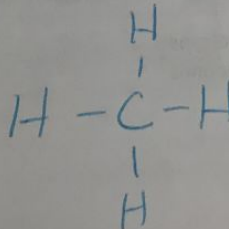
- a. sodium and chlorine
- ☒ b. carbon and fluorine
- c. lithium and carbon
- d. magnesium and oxygen

15. Draw a Lewis-Dot diagram for the ionic compound K and Cl. Then, name the compound.



Name: Potassium chloride

16. Draw a Lewis-Dot diagram for the covalent compound CH_4 . Then, name the compound.



Name: carbon tetrachloride