Quiz 1

Date:_____ Name:_____

A multiple choice quiz. Tick the boxes to record the answer

1. Sodium and chlorine react to form sodium chloride, according to the following chemical reaction. Which of the following statement is true based on the equation

$$2Na + Cl_2 \longrightarrow 2NaCl$$

A ☐ Sodium, chlorine and sodium chloride has the same stability

B ☐ Sodium and chlorine are less stable than sodium chloride

C ☐ Sodium and chlorine are more stable than sodium chloride

2. There are many different types of chemical bonds that exist in different substances. Which chemical bond is formed from the transfer of electrons?

A ☐ Ionic Bond

B ☐ Dative Bond

C ☐ Covalent Bond

D ☐ Metallic Bond

3. Atom X is very stable and does not form chemical bonds with any other atoms. Which of the following is the proton number of atom X?

A ☐ 8

B ☐ 10

C ☐ 16

D ☐ 20

4. Which of the following substances consists of only ions?

A ☐ Ammonia, NH_3

B ☐ Tetrachloromethane, CCl_4

C ☐ Sodium oxide, Na_2O

D ☐ Carbon dioxide, CO_2

5. The proton numbers of element K and element L are 11 and 16 respectively. Which statement is true about the reaction between K and L to form a compound?

A ☐ One atom K donates one electron and one atom L receives one electron

B ☐ One atom K donates one electron and one atom L receive two electrons.

C ☐ One atom K donate two electrons and one atom L receive one electron.

D ☐ One atom K donate two electrons and one atom L receive two electrons.

6. Which of the following pairs of elements react to form ionic bonds.

Select 2 answers

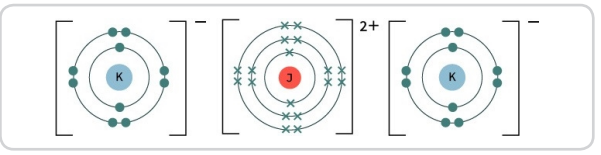
A ☐ Sodium and magnesium

B ☐ Carbon and oxygen

C ☐ Magnesium and chlorine

D ☐ Sodium and sulphur

7. Diagram 1 shows the electron arrangement for a compound with formula JK_2



A ☐ Atom J: 12, Atom K: 7

B ☐ Atom J: 12, Atom K: 9

C ☐ Atom J: 20, Atom K: 7

D ☐ Atom J: 20, Atom K: 9

8. Atom M and atom N reacts to produce an ionic compound with the formula M_2N. If the proton number of atom N is 16, what is the proton number of atom M?

A ☐ 3

B ☐ 6

C ☐ 12

D ☐ 17

9. Which of the following molecules consist of double covalent bonds?

A ☐ Nitrogen gas, N_2

B ☐ Hydrogen chloride, HCl molecules

C ☐ Carbon dioxide, CO_2 molecules

D ☐ tetrachloromethane, CCl_4 molecule

10. Which of the following molecule form hydrogen bonds between its molecules?

A ☐ Hydrogen fluoride, HF

B ☐ Methane, CH_4

C ☐ Carbon Dioxide, CO_2

D ☐ Chloroform, $CHCl_3$