



Name _____ Class _____ Date _____

1 The **multiple covalent bond** in a molecule of **1-butene** is a

- A double covalent bond that has 6 shared electrons
- B double covalent bond that has 4 shared electrons
- C triple covalent bond that has 6 shared electrons
- D triple covalent bond that has 4 shared electrons

2 Which formula represents an **unsaturated hydrocarbon**?

- A CH_2CHCl
- B $\text{CH}_3\text{CH}_2\text{Cl}$
- C $\text{CH}_3\text{CH}_2\text{CH}_3$
- D CH_3CHCH_2

3 Given the electron dot diagram:
The electrons in the bond between **hydrogen** and **fluorine** are more strongly attracted to the atom of



- A hydrogen, which has the higher electronegativity
- B fluorine, which has the higher electronegativity

4 In which system do **molecule-ion attractions** exist?

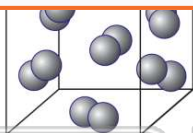
- A KCl(s)
- B KCl(aq)
- C KCl(l)
- D KCl(g)



PREVIEW

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5
 A H_2O
 B Ca(OH)_2
 C Ca(OH)_2
 D CaO



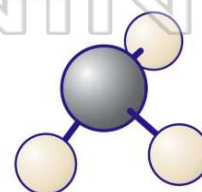
- B molecular substances with ionic bonding
- C network solids with covalent bonding
- D network solids with ionic bonding

9 When a reaction occurs between atoms with ground-state electron configurations of $1s^22s^1$ and $1s^22s^22p^5$, the **bond formed** is mainly

- A polar covalent
- B nonpolar covalent
- C metallic
- D ionic

10 The **empirical formula** of a compound is CH_3 . The **molecular formula** of this compound could be

- A CH_4
- B C_2H_4
- C C_2H_6
- D C_3H_6





ANSWER KEY

The **multiple covalent bond** in a molecule of **1-butene** is a

- A double covalent bond that has 6 shared electrons
- B double covalent bond that has 4 shared electrons
- C triple covalent bond that has 6 shared electrons
- D triple covalent bond that has 4 shared electrons

(b)

Which formula represents an **unsaturated hydrocarbon**?

- A CH_2CHCl
- B $\text{CH}_3\text{CH}_2\text{Cl}$
- C $\text{CH}_3\text{CH}_2\text{CH}_3$
- D CH_3CHCH_2

(d)

Given the electron dot diagram:

The electrons in the bond between **hydrogen** and **fluorine** are more strongly attracted to the atom of



- A hydrogen, which has the higher electronegativity
- B fluorine, which has the higher electronegativity
- C hydrogen, which has the lower electronegativity
- D fluorine, which has the lower electronegativity

(b)

In which system do **molecule-ion attractions** exist?

- A KCl(s)
- B KCl(aq)
- C KCl(l)
- D KCl(g)

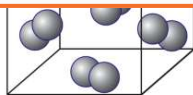
(b)



PREVIEW

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D CaO



- C network solids with covalent bonding
- D network solids with ionic bonding

When a reaction occurs between atoms with ground-state electron configurations of $1s^22s^1$ and $1s^22s^22p^5$, the **bond formed** is mainly

- A polar covalent
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- D ionic

(d)

The **empirical formula** of a compound is CH_3 . The **molecular formula** of this compound could be

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- C C_2H_6
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(c)

