



Name _____ Class _____ Date _____

1 Given the structural formula:
This compound is classified as an

$$\begin{array}{c}
 \text{H} \quad \text{O} \\
 | \quad || \\
 \text{H}-\text{C}-\text{C}-\text{N}-\text{H} \\
 | \quad \quad \quad | \\
 \text{H} \quad \quad \quad \text{H}
 \end{array}$$

A amide
B amine
C aldehyde
D alcohol

2 Which formula **correctly** represents antimony (V) oxide?

A SbO_5
B Sb_5O
C Sb_2O_5
D Sb_5O_2

3 **Metallic bonding** occurs between metal atoms that have

A full valence orbitals and low ionization energies
B full valence orbitals and high ionization energies
C vacant valence orbitals and low ionization energies

4 Which substance contains a bond with the **greatest ionic character**?

A KCl
B HCl
C Cl_2
D F_2



PREVIEW

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- C a ternary compound
D a mixture

- B C_2H_2 and CH_2
C C_6H_6 and C_2H_2
D P_4O_{10} and P_2O_5

9 Which **electron dot diagram** represents a molecule that has a **polar covalent bond**?

A $\text{H} \times \text{Cl} :$
B $\text{Li}^+ [: \text{Cl} :]^-$
C $: \text{Cl} : \times \text{Cl} : \times \times$
D $\text{K}^+ [: \text{Cl} :]^-$

10 As **energy** is released during the **formation of a bond**, the **stability** of the chemical system generally will

- A decrease
B increase
C remain the same

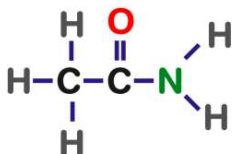




ANSWER KEY

Given the structural formula:

This compound is classified as an



- A amide
- B amine
- C aldehyde
- D alcohol

(a)

Which formula **correctly** represents antimony (V) oxide?

- A SbO_5
- B Sb_5O
- C Sb_2O_5
- D Sb_5O_2

(c)

Metallic bonding occurs between metal atoms that have

- A full valence orbitals and low ionization energies
- B full valence orbitals and high ionization energies
- C vacant valence orbitals and low ionization energies
- D vacant valence orbitals and high ionization energies

(c)

Which substance contains a bond with the **greatest ionic character**?

- A KCl
- B HCl
- C Cl_2
- D F_2

(a)



PREVIEW

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Which **electron dot diagram** represents a molecule that has a **polar covalent bond**?

- A $H:\ddot{C}l:$
- B $Li^+[:\ddot{C}l:]^-$
- C $:\ddot{C}l:\overset{\times\times}{\underset{\times\times}{C}}\overset{\times\times}{\underset{\times\times}{C}}:$
- D $K^+[:\ddot{C}l:]^-$

(a)

As **energy** is released during the **formation of a bond**, the **stability** of the chemical system generally will

- A decrease
- B increase
- C remain the same



(b)