

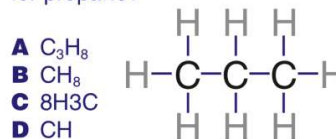


Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

1 How many atoms of **oxygen (O)** are in the **chemical formula** below?

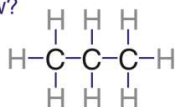


2 The diagram shown below is a **structural formula** for the gas **propane**. What would be the correct **chemical formula** for propane?



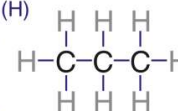
3 Carbon (C) and hydrogen (H) create **covalent bonds** to share **electrons** between them. What is the total number of electrons being shared between **carbon** and **hydrogen** in the molecule of propane shown below?

- A 8      C 16  
B 11     D 32



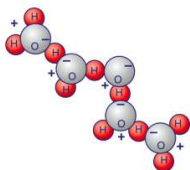
4 The **reason** why the bonds between carbon (C) and hydrogen (H) are **covalent** is \_\_\_\_\_.

- A C and H do not have electrons to give away  
B C and H are both nonmetals  
C C and H are both metalloids  
D C and H can bond only by sharing electrons



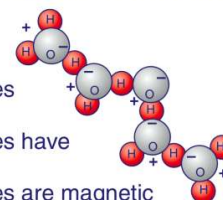
5 The diagram below represents the **structural formula** for several **water molecules**. How many **molecules** are represented?

- A 3  
B 5  
C 10  
D 15



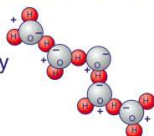
6 Explain the **arrangement** of the molecules in the diagram of water below.

- A it is a lucky arrangement  
B water molecules are sticky  
C water molecules have polarity  
D water molecules are magnetic



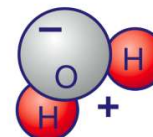
7 Water molecules have some **polarity** in their structure. Using the diagram below, notice how the ends of H atoms (**positive**) and O atoms (**negative**) meet. This property is the **reason** that \_\_\_\_\_.

- A water forms droplets easily  
B water boils easily  
C ice melts easily  
D water has color



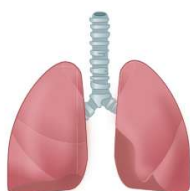
8 Since H atoms are slightly **positive** and the O atoms are slightly **negative**, molecules of water have **polarity**. This makes water a **good** \_\_\_\_\_.

- A solute  
B refrigerant  
C solvent  
D magnet



9 The chemical formula for the **oxygen** that we breathe is \_\_\_\_\_.

- A O  
B  $\text{O}_2$   
C  $\text{O}_4$   
D 2O



10 How many **molecules of oxygen** are represented in the chemical formula below?

- A 2  
B 4  
C 6  
D 18





Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

1 How many atoms of **oxygen (O)** are in the **chemical formula** below?

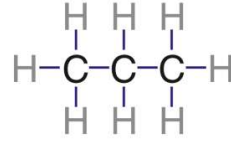
- A 4
- B 5
- C 7
- D 12



(D)

2 The diagram shown below is a **structural formula** for the gas **propane**. What would be the correct **chemical formula** for propane?

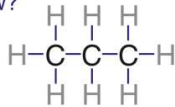
- A  $\text{C}_3\text{H}_8$
- B  $\text{CH}_8$
- C  $8\text{H}3\text{C}$
- D CH



(A)

3 Carbon (C) and hydrogen (H) create **covalent bonds** to share **electrons** between them. What is the total number of electrons being shared between **carbon** and **hydrogen** in the molecule of propane shown below?

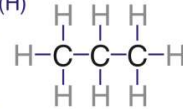
- A 8
- B 11
- C 16
- D 32



(C)

4 The **reason** why the bonds between carbon (C) and hydrogen (H) are **covalent** is \_\_\_\_\_.

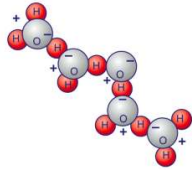
- A C and H do not have electrons to give away
- B C and H are both nonmetals
- C C and H are both metalloids
- D C and H can bond only by sharing electrons



(D)

5 The diagram below represents the **structural formula** for several **water molecules**. How many **molecules** are represented?

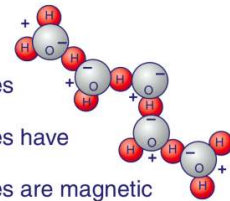
- A 3
- B 5
- C 10
- D 15



(B)

6 Explain the **arrangement** of the molecules in the diagram of water below.

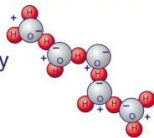
- A it is a lucky arrangement
- B water molecules are sticky
- C water molecules have polarity
- D water molecules are magnetic



(C)

7 Water molecules have some **polarity** in their structure. Using the diagram below, notice how the ends of H atoms (**positive**) and O atoms (**negative**) meet. This property is the **reason** that \_\_\_\_\_.

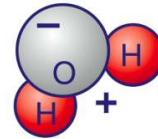
- A water forms droplets easily
- B water boils easily
- C ice melts easily
- D water has color



(A)

8 Since H atoms are slightly **positive** and the O atoms are slightly **negative**, molecules of water have **polarity**. This makes water a **good** \_\_\_\_\_.

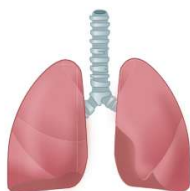
- A solute
- B refrigerant
- C solvent
- D magnet



(C)

9 The chemical formula for the **oxygen** that we breathe is \_\_\_\_\_.

- A O
- B  $\text{O}_2$
- C  $\text{O}_4$
- D 20



(B)

10 How many **molecules of oxygen** are represented in the chemical formula below?

- A 2
- B 4
- C 6
- D 18



(B)