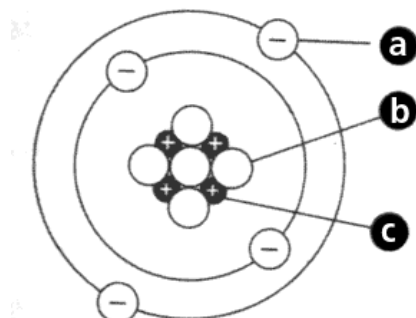


**Atoms, elements and compounds**

1) Label the diagram of an atom below:

(3 point)



a: \_\_\_\_\_

b: \_\_\_\_\_

c: \_\_\_\_\_

2) **Ions**, are atoms that have:

(1 point)

- a) Gained or lost a neutron   b) Gained or lost an atom   c) Gained or lost an electron

3) Match the definition with the type of bond:

(3 point)

Definition	Keyword
The bond made when electrons are shared	Van der Waal force
An attraction between two oppositely charged ions	Covalent Bond
Attractive forces between molecules	Ionic Bond

4) The electrons that make chemical bonds are called:

(1 point)

- a) Valence electrons   b) Negative electrons   c) Orbital elections

**Chemical Reactions**

5) Chemical reactions rearrange \_\_\_\_\_ to form new substances. (1 point)

- a) Oxygen   b) Molecules   c) Active sites

Name \_\_\_\_\_

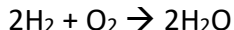
## Test 1

Chemistry in Biology

Section 1, 2 & 3

6) Identify the **reactants** and **products** in the following equation:

(2 point)



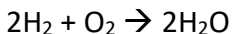
Reactant(s) \_\_\_\_\_

Product(s) \_\_\_\_\_

7) Read the two sentences below and answer the question:

**Energy (heat) is released when bonds are made = Exothermic.**

**Energy (heat) is absorbed when bonds break = Endothermic.**



Is the equation endothermic or exothermic? \_\_\_\_\_

(1 point)

8) Label the diagram of an enzyme using the words below:

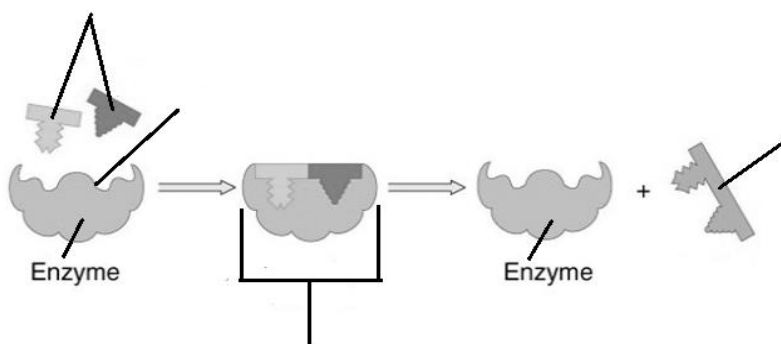
(4 point)

Enzyme substrate complex

Active site

Products

Substrates



## Water and Solutions

9) Give an example of a **heterogeneous** mixture \_\_\_\_\_

(2 point)

10) Water (H<sub>2</sub>O) is a:

(1 point)

a) Polar bear

b) Polar solute

c) Polar solvent

11) An **acid** (HCl) releases \_\_\_\_\_ ions when dissolved in water:

(1 point)

a) H<sup>+</sup>

b) Na<sup>+</sup>

c) OH<sup>-</sup>