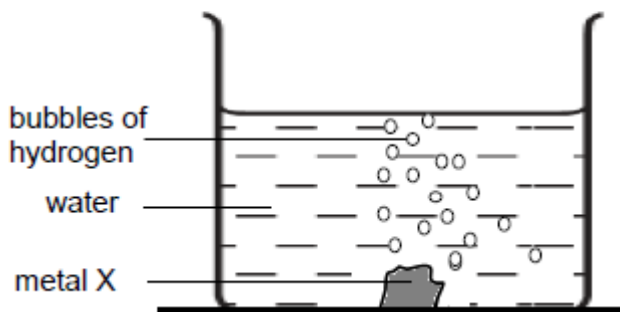


**Answer all Questions**

- 1 An example of an element which has a valency of 2 is
- A calcium.
  - B sodium.
  - C aluminium.
  - D potassium.
- 2 Which one of the following is the correct formula for potassium bromide?
- A PBr
  - B KBr
  - C KB
  - D POBr
- 3 An example of an element is
- |             |                   |
|-------------|-------------------|
| A Air       | B Water           |
| C Aluminium | D Aluminium oxide |
- 4 Why does aluminium have a low reactivity?
- |   |                                       |
|---|---------------------------------------|
| A It has a low density                  | B It is covered with a layer of oxide |
| C It is a good conductor of electricity | D It is a good conductor of heat      |
- 5 The diagram in **Figure 1** shows **metal X** reacting with water. Which of the metals below could **X** be?
- |           |
|-----------|
| A Calcium |
| B Gold    |
| C Iron    |
| D Copper  |



6 What is the total number of atoms in the following formulae:

(i)  $\text{Na}_2\text{CO}_3$  \_\_\_\_\_

(ii)  $\text{Al}_2(\text{SO}_4)_3$  \_\_\_\_\_

Write the formula of each compound below:

(i) ammonium sulfate \_\_\_\_\_

(ii) zinc nitrate \_\_\_\_\_

Write the balanced chemical equation for each of the following:

(i) potassium + water  $\longrightarrow$  potassium hydroxide + hydrogen

\_\_\_\_\_

(ii) copper (II) oxide + sulfuric acid  $\longrightarrow$  copper (II) sulfate + water

\_\_\_\_\_

(iii) sodium carbonate + hydrochloric acid  $\longrightarrow$  sodium chloride + water + carbon dioxide

\_\_\_\_\_

7 Some metals in the reactivity series are shown below.

**Copper, Iron, Sodium, Magnesium**

(a) Arrange the metals starting from the most reactive to the least reactive one.

\_\_\_\_\_

(b) Choose a metal, from the given list, which

(i) reacts rapidly with cold water \_\_\_\_\_

(ii) rusts when in contact with air and water \_\_\_\_\_

- 8 (a) Sodium carbonate reacts with dilute hydrochloric acid to form sodium chloride, carbon dioxide and water.

(i) Write a word equation for the above reaction.

\_\_\_\_\_

(ii) Write a balanced equation for the reaction in (i).

\_\_\_\_\_

- (b) Give the name of the compound with formula

(i)  $\text{AlBr}_3$  \_\_\_\_\_

(ii)  $\text{FeSO}_4$  \_\_\_\_\_

- (c) A compound has formula  $\text{X}_3\text{Y}_2$ .

What is the valency of (i) X \_\_\_\_\_ and

(ii) Y \_\_\_\_\_

- 9 Elements are substances that are made up of only **one** type of atoms. Elements can be metallic or non-metallic.

- (a) Complete **Table 1** by giving one example of a metallic element and one example of a non-metallic element as well as their symbols.

Element	Name	Symbol
Metallic	_____	_____
Non-metallic	_____	_____

**Table 1**

- (b) All metals are solids at room temperature except \_\_\_\_\_, which is a liquid.