

GCSE Chemistry A (Gateway Science)

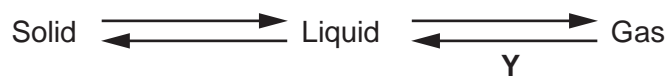
J248/01 Chemistry A C1-C3 and C7 (Foundation Tier)

Question Set 3

C3: Chemical Reactions

Multiple Choice Questions

1 Substances can exist in three states of matter.



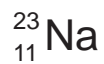
What is change of state Y called?

- A Condensing
- B Evaporating
- C Freezing
- D Melting

Your answer

[1]

2 A sodium atom can be shown as:



How many protons, neutrons and electrons are in a sodium atom?

- A 11 protons, 12 neutrons, 11 electrons
- B 11 protons, 11 neutrons, 12 electrons
- C 12 protons, 12 neutrons, 11 electrons
- D 12 protons, 11 neutrons, 11 electrons

Your answer

[1]

- 3 During the electrolysis of molten copper chloride, what is made at the **positive** electrode (anode)?
- A Chloride
 - B Chlorine
 - C Copper
 - D Hydrogen

Your answer

[1]

- 4 Which of these pH values shows the pH of a strong acid?
- A 1
 - B 5
 - C 7
 - D 10

Your answer

[1]

- 5 Lead nitrate contains lead ions, Pb^{2+} , and nitrate ions, NO_3^- .

What is the formula for lead nitrate?

- A PbNO_3
- B $\text{Pb}(\text{NO}_3)_2$
- C Pb_2NO_3
- D $\text{Pb}_2(\text{NO}_3)_2$

Your answer

[1]

6 Look at the equation.



Which substance is **oxidised** in this reaction?

A CH_4

B CO_2

C H_2O

D O_2

Your answer

[1]

7 Look at the equation.



Which substance is the **oxidising agent** in this reaction?

A CH_4

B CO_2

C H_2O

D O_2

Your answer

[1]

8 What is the name of the gas made when zinc carbonate reacts with hydrochloric acid?

A Carbon dioxide

B Chlorine

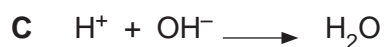
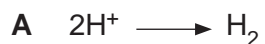
C Hydrogen

D Oxygen

Your answer

[1]

9 Which equation represents **neutralisation**?



Your answer

[1]

10 What is meant by the **activation energy** in a chemical reaction?

A The total energy used up when a reaction has stopped.

B The energy absorbed during a reaction.

C The energy released during a reaction.

D The minimum energy needed for a reaction to occur.

Your answer

[1]

11 A student reacts calcium carbonate with hydrochloric acid.



What physical state does **(g)** represent in the balanced symbol equation?

A Aqueous

B Gas

C Liquid

D Solid

Your answer

[1]

12 Lemon juice can be described as a weak acid.

What is the pH value for a weak acid?

- A pH 1
- B pH 4
- C pH 7
- D pH 14

Your answer

[1]

13 During the electrolysis of molten copper chloride, what is made at the **positive** electrode (anode)?

- A Chloride
- B Chlorine
- C Copper
- D Hydrogen

Your answer

[1]

14 The formula of a magnesium ion is Mg^{2+} .

The formula of a nitrate ion is NO_3^- .

What is the formula of **magnesium nitrate**?

- A MgNO_3
- B Mg_2NO_3
- C $\text{Mg}(\text{NO}_3)_2$
- D $\text{Mg}_2(\text{NO}_3)_3$

Your answer

[1]

Total Marks for Question Set 3: 14



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