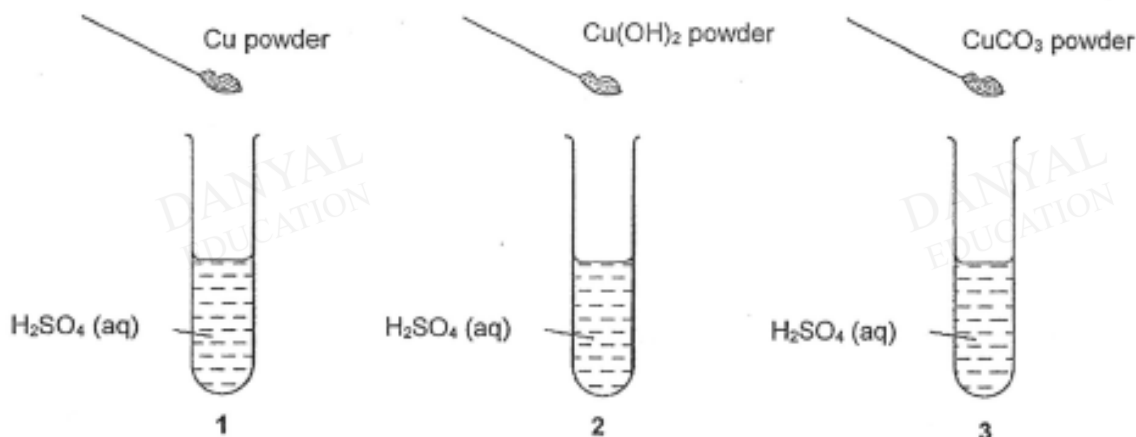


## O Level Combined Chemistry MCQs

### Acids and Bases Test 2.0

Q1

The diagrams show three experiments using dilute sulfuric acid. Three different powders are added to the acid. The mixtures are stirred.



Which test tubes now contain  $\text{Cu}^{2+}(\text{aq})$  ions?

- A 3 only
- B 1 and 2 only
- C 2 and 3 only
- D 1, 2 and 3

Q2

A student made some statements about alkalis.

- 1 Alkalis has a pH value of 1.
- 2 A base is a substance which can neutralise an alkali.
- 3 Alkalis turns damp red litmus paper blue.
- 4 Ammonia gas is produced when an alkali is reacted with ammonium chloride.
- 5 In a neutralisation reaction, the pH of the alkaline will fall towards 1.

Which two statements are correct?

- A 1 and 2
- B 2 and 3
- C 3 and 4
- D 4 and 5

Q3

G is a solid that conducts electricity and has a high melting point.

On warming, G partly dissolves in excess dilute hydrochloric acid, leaving behind a residue.

What is G?

- A zinc
- B brass
- C copper
- D magnesium chloride

Q4

Scrap iron is often recycled.

Which reason for recycling is **not** correct?

- A It saves natural resources.
- B It reduces the need to collect the scrap iron.
- C It reduces the amount of waste taken to landfill sites.
- D It reduces the amount of pollution at the site of the ore extraction.

Q5

Which of the following oxides reacts with both aqueous ammonia and dilute sulfuric acid to form a salt and water only?

- A carbon monoxide
- B iron(II) oxide
- C sulfur dioxide
- D lead(II) oxide

Q6

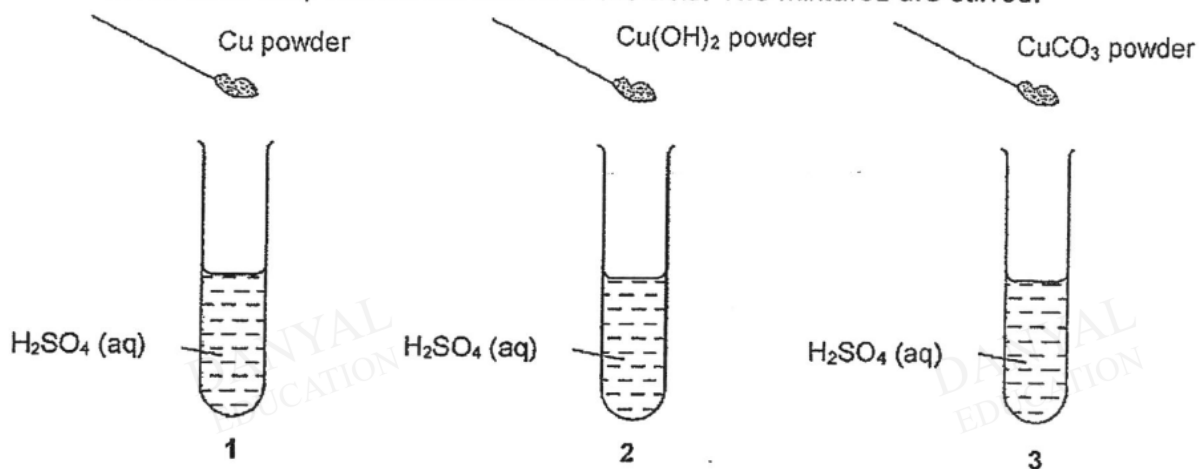
A gas is evolved when iron(II) carbonate reacts with solution X. A test is carried out to identify the gas evolved.

Which of the following identifies solution X and suggests a test that will give a positive result for the gas evolved?

	solution X	test for gas
A	sulfuric acid	limewater
B	sodium hydroxide	moist blue litmus paper
C	sulfuric acid	lighted splint
D	sodium hydroxide	moist red litmus paper

Q7

The diagrams show three experiments using dilute sulfuric acid. Three different powders are added to the acid. The mixtures are stirred.



Which test tubes now contain  $\text{Cu}^{2+}(\text{aq})$  ions?

- A 3 only
- B 1 and 2 only
- C 2 and 3 only
- D 1, 2 and 3

Q8

What is the ionic equation for the reaction between hydrochloric acid and sodium hydroxide?

- A  $\text{H}^+ + \text{Cl}^- \rightarrow \text{HCl}$
- B  $\text{H}^+ + \text{OH}^- \rightarrow \text{H}_2\text{O}$
- C  $2\text{H}^+ + \text{O}^{2-} \rightarrow \text{H}_2\text{O}$
- D  $\text{Na}^+ + \text{Cl}^- \rightarrow \text{NaCl}$

Q9

Distilled water contains dissolved carbon dioxide.

What is the pH value of this distilled water?

- A 11
- B 9
- C 7
- D 5

Q10

An oxide reacts with both hydrochloric acid and sodium hydroxide. What is the identity of this oxide?

- A carbon dioxide
- B magnesium oxide
- C iron (II) oxide
- D zinc oxide

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**Answers**

**Acids and Bases Test 2.0**

Q1 C

Q2 C

Q3 B

Q4 B

Q5 D

Q6 A

Q7 C

Q8 B

Q9 D

Q10 D

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