ENGLAND GCSE COMBINED SCIENCE AQA TRILOGY FOUNDATION · UNIT 11 · 25 QUESTIONS

# Chemical Changes — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button so it can be fixed.

**1** **Lemons contain citric acid. What do acids make with metals?**

- A a salt and water, never hydrogen
- B water only, nothing else
- C a salt and oxygen gas
- D a salt and hydrogen

Understand It with Pulse | Flag a mistake

**2** **A castle wall is made of stone. What type of rock is limestone?**

- A sedimentary
- B igneous
- C volcanic
- D metamorphic

Understand It with Pulse | Flag a mistake

3 **Paintbrushes apply paint to a wall. What is the paint made of?**

A a mixture of substances

B a single element, nothing else

C pure water with nothing in it

D a single compound, nothing else

Understand It with Pulse | Flag a mistake

4 **A cup of coffee is hot. How is energy transferred to the air?**

A by radiation only, from the surface

B by condensation on the cold cup

C by evaporation only, from the top

D by conduction and convection

Understand It with Pulse | Flag a mistake

5 **An ice cream cone melts in the Sun. What is happening to the particles in the ice cream?**

- A they stop moving
- B they get smaller
- C they lose energy and slow down a lot
- D they gain energy and move more

Understand It with Pulse | Flag a mistake

6 **A chocolate cake is baked. Is baking a chemical change?**

- A no
- B never
- C sometimes
- D yes

Understand It with Pulse | Flag a mistake

7 **What forms at the anode during the electrolysis of copper sulfate solution?**

A bromine

B oxygen

C lead

D hydrogen

Understand It with Pulse | Flag a mistake

8 **Will zinc displace copper from its salt solution?**

A no

B only when heated

C only with a catalyst

D yes

Understand It with Pulse | Flag a mistake

9 **Why is gold found uncombined in the Earth?**

A it is very unreactive

B it is made by volcanoes

C it is very reactive

D it dissolves in water

Understand It with Pulse | Flag a mistake

10 **How many moles are there in 40 g of a substance with a relative formula mass of 40 ?**

A 2

B 0.5

C 3

D 1

Understand It with Pulse | Flag a mistake

11 **What is the positive electrode called?**

A the cathode

B the cell

C the anode

D the electrolyte

Understand It with Pulse | Flag a mistake

12 **What is the pH of a strong acid?**

A 14

B 10

C 1

D 7

Understand It with Pulse | Flag a mistake

13 **A solution has a hydrogen ion concentration of $10^{-7}$mol per cubic decimetre. What is its pH?**

- A 7
- B 6
- C 8
- D 9

Understand It with Pulse | Flag a mistake

14 **What forms at the cathode during the electrolysis of molten lead bromide?**

- A hydrogen
- B lead
- C chlorine
- D bromine

Understand It with Pulse | Flag a mistake

15 **Which salt is made from hydrochloric acid and sodium hydroxide?**

A sodium chloride

B sodium carbonate

C sodium nitrate

D sodium sulfate

Understand It with Pulse | Flag a mistake

16 **How many moles are there in 80 g of a substance with a relative formula mass of 40 ?**

A 2

B 1

C 4

D 6

Understand It with Pulse | Flag a mistake

17 **What do acids produce in water?**

A hydroxide ions

B chloride ions

C hydrogen ions

D oxygen

Understand It with Pulse | Flag a mistake

18 **A solution has a hydrogen ion concentration of $10^{-1}$mol per cubic decimetre. What is its pH?**

A 3

B 2

C 1

D 0

Understand It with Pulse | Flag a mistake

19 **What is the order of reactivity, most reactive first?**

A magnesium, calcium, sodium, potassium

B calcium, magnesium, potassium, sodium

C sodium, potassium, magnesium, calcium

D potassium, sodium, calcium, magnesium

Understand It with Pulse | Flag a mistake

20 **What forms at the cathode during the electrolysis of copper sulfate solution?**

A hydrogen

B bromine

C copper

D lead

Understand It with Pulse | Flag a mistake

21 **Will iron displace copper from its salt solution?**

A no

B only when heated

C only with a catalyst

D yes

Understand It with Pulse | Flag a mistake

22 **Why is aluminium extracted by electrolysis?**

A it is cheap to do

B it melts easily

C carbon does not react with it

D it is too reactive for carbon

Understand It with Pulse | Flag a mistake

**23** **What is the negative electrode called?**

- A the cathode
- B the anode
- C the cell
- D the electrolyte

Understand It with Pulse | Flag a mistake

**24** **What is neutralisation?**

- A an acid reacting with a base
- B an acid reacting with a metal
- C an acid evaporating
- D a base reacting with water

Understand It with Pulse | Flag a mistake

25

## Will copper displace zinc from zinc sulfate?

A yes, copper is more reactive

B no, copper is less reactive

C no, zinc is more reactive

D yes, zinc is less reactive

Understand It with Pulse

Flag a mistake

# ANSWER KEY

| | | | | | |
|---|---|---|---|---|---|
| **1.** | D | **10.** | D | **19.** | D |
| **2.** | A | **11.** | C | **20.** | C |
| **3.** | A | **12.** | C | **21.** | D |
| **4.** | D | **13.** | A | **22.** | D |
| **5.** | D | **14.** | B | **23.** | A |
| **6.** | D | **15.** | A | **24.** | A |
| **7.** | B | **16.** | A | **25.** | B |
| **8.** | D | **17.** | C | | |
| **9.** | A | **18.** | C | | |

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