ENGLAND GCSE CHEMISTRY AQA HIGHER · UNIT 8 · 25 QUESTIONS

Chemical Analysis — 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 **Glass marbles are used to model atoms. What is a limitation of the model?**

- A marbles are too small to see properly
- B marbles cannot be counted accurately at all
- C marbles are the wrong colour for atoms
- D marbles are much bigger than atoms

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2 **Lemons taste sour. What does sour taste show?**

- A an acid is present
- B a salt is present
- C an alkali is present
- D a metal is present

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3 **A cup of coffee cools down. Energy is transferred to the surroundings. What type of change is this?**

- A an energy transfer
- B a neutralisation
- C a reversible reaction
- D a chemical change

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4 **Paintbrushes are cleaned in water. Why does the paint wash off?**

- A the paint dissolves
- B the paint burns in the water
- C the paint melts in the water
- D the paint freezes in the water

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5 **An ice cream cone is put in a freezer. What happens to the liquid?**

A it evaporates

B it freezes

C it boils

D it condenses

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6 **Silver coins are made of the element silver. What is the chemical symbol for silver?**

A Ag

B S

C Sv

D Si

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7 **How do you test for carbonate ions?**

- A silver nitrate gives a precipitate
- B acid gives off carbon dioxide
- C a squeaky pop
- D a lilac flame

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8 **How many atoms of sodium are there in one molecule of sodium chloride?**

- A 3
- B 2
- C 0
- D 1

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9 **A sample containing sodium is put in a flame. What colour is the flame?**

- A pale lilac
- B yellow
- C orange-red flame
- D crimson red

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10 **What does mass spectrometry measure?**

- A the masses of particles
- B the colours of a flame
- C the temperature of a sample
- D the volume of a gas

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11 **What is the test for chlorine?**

A a lighted splint pops with a squeak

B damp litmus paper is bleached

C limewater turns cloudy in the gas

D a glowing splint relights brightly

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12 **What is seen when sodium hydroxide is added to copper sulfate solution?**

A a brown precipitate forms at once

B a green precipitate forms at once

C a white precipitate forms at once

D a blue precipitate

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13 **Why is flame emission spectroscopy useful?**

A it works on solids only

B it needs no sample at all

C it can identify very small amounts

D it works without any equipment at all

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14 **In chromatography, what is the stationary phase?**

A the paper

B the ruler

C the spots

D the solvent

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15 **What colour flame does sodium give in a flame test?**

A lilac

B yellow

C brick red

D green

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16 **What is chromatography used for in the food industry?**

A checking dyes in food

B making food taste better

C keeping food cold longer

D heating food more quickly

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17 **In a chromatogram, a spot moves 4 cm and the solvent moves 8 cm. What is the Rf value?**

- A 1
- B 0.5
- C 0.65
- D 0.6

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18 **How many atoms of oxygen are there in one molecule of carbon dioxide?**

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

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19 **A sample containing potassium is put in a flame. What colour is the flame?**

A lilac

B orange-red flame

C crimson red

D bright yellow

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20 **Why are instrumental methods used to test athletes?**

A they are cheap to run anywhere in the world

B they give results in seconds

C they work without a sample

D they can find tiny amounts of drugs

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21 **What is the test for carbon dioxide?**

A bromine water turns colourless

B a lighted splint pops

C a glowing splint relights

D limewater turns cloudy

Understand It with Pulse | Flag a mistake

22 **What is seen when sodium hydroxide is added to iron(III) chloride solution?**

A a green precipitate forms at once

B a blue precipitate forms at once

C a white precipitate forms at once

D a brown precipitate

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23 **What does each element give in flame emission spectroscopy?**

- A the same line spectrum as others
- B no light at all in the flame
- C its own line spectrum
- D a continuous rainbow spectrum

Understand It with Pulse | Flag a mistake

24 **In a chromatogram, a spot moves 6 cm and the solvent moves 8 cm. What is the Rf value?**

- A 0.85
- B 0.9
- C 1.5
- D 0.75

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25

A sample containing copper is put in a flame. What colour is the flame?

A pale lilac

B green

C crimson red

D bright yellow

Understand It with Pulse

Flag a mistake

ANSWER KEY

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

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