ENGLAND GCSE CHEMISTRY AQA FOUNDATION · 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 **A cup of coffee is left for an hour. What happens to its temperature?**

- A it falls to room temperature
- B it stays the same all day
- C it falls to zero degrees
- D it rises above room temperature

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

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

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3 **Silver coins are made of a metal. Which property do metals have?**

A they are brittle

B they conduct electricity

C they do not conduct electricity at all

D they dissolve in water

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

A the paint dissolves

B the paint melts in the water

C the paint burns in the water

D the paint freezes in the water

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

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

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6 **Glass marbles in a tray are used as a model for particles in a solid. What do the marbles show?**

- A particles vibrate in fixed positions
- B particles flow past each other easily
- C particles move freely through space
- D particles are far apart from each other

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

A they give results in seconds

B they can find tiny amounts of drugs

C they are cheap to run anywhere in the world

D they work without a sample

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8 **A sample containing calcium is put in a flame. What colour is the flame?**

A pale lilac

B crimson red

C orange-red

D bright yellow

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

A 3

B 0

C 2

D 1

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10 **Which of these is a formulation?**

A paint

B water

C oxygen

D salt

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11 **How do you test for sulfate ions?**

A silver nitrate gives a yellow precipitate

B barium chloride gives a white precipitate

C limewater turns cloudy white

D a glowing splint relights brightly

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

A a glowing splint relights brightly

B limewater turns cloudy in the gas

C a lighted splint pops with a squeak

D damp litmus paper is bleached

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13 **In a chromatogram, a spot moves 6 cm and the solvent moves 12 cm. What is the Rf value?**

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

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14 **How many spots does a pure substance give on a chromatogram?**

- A one spot
- B no spots at all
- C three spots in a row
- D two spots side by side

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

A yellow

B lilac

C green

D brick red

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16 **Why are instrumental methods better than chemical tests?**

A they are fast, sensitive and accurate

B they work on solids only

C they are cheap and need no training at all

D they need no sample at all

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

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

Understand It with Pulse | Flag a mistake

18 **How many atoms of hydrogen are there in one molecule of methane?**

- A 6
- B 3
- C 5
- D 4

Understand It with Pulse | Flag a mistake

19 **What is seen when sodium hydroxide is added to aluminium chloride solution?**

A a brown precipitate forms at once

B a blue precipitate forms at once

C a white precipitate

D a green precipitate forms at once

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

A limewater turns cloudy

B a glowing splint relights

C bromine water turns colourless

D a lighted splint pops

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21 **In a chromatogram, a spot moves 3 cm and the solvent moves 8 cm. What is the Rf value?**

- A 0.47
- B 0.75
- C 0.38
- D 0.53

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22 **What does it mean if a chromatogram shows several spots?**

- A the solvent is impure
- B the sample is a mixture
- C the sample is a pure substance
- D the paper is too short

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

A the paper

B the ruler

C the spots

D the solvent

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24 **What can gas chromatography separate?**

A solids from liquids only

B metals from their ores

C mixtures of gases

D acids from alkalis only

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25

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

A lilac

B crimson red

C bright yellow

D orange-red flame

Understand It with Pulse

Flag a mistake

ANSWER KEY

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

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