ENGLAND GCSE COMBINED SCIENCE OCR TWENTY FIRST CENTURY HIGHER · UNIT 11 · 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 river flows to the sea. What is this part of?**

- A the carbon cycle
- B the water cycle
- C the nitrogen cycle
- D the rock cycle

Understand It with Pulse | Flag a mistake

2 **A castle built of limestone is damaged by acid rain. Which gas causes acid rain?**

- A sulfur dioxide
- B oxygen
- C carbon dioxide
- D nitrogen

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

A never

B sometimes

C no

D yes

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

A a salt and water, never hydrogen

B a salt and oxygen gas

C water only, nothing else

D a salt and hydrogen

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5 **Silver coins conduct electricity well. Why?**

A they are cold

B they are heavy

C they have free electrons

D they are shiny and reflective

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

A the paint melts in the water

B the paint freezes in the water

C the paint burns in the water

D the paint dissolves

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7 **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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8 **A sample containing potassium is put in a flame. What colour is the flame?**

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

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9 **What colour flame does potassium give in a flame test?**

- A green
- B brick red
- C yellow
- D lilac

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10 **What does chromatography separate?**

- A salt from water
- B different dyes
- C sand from water
- D oil from water

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

- A a white precipitate forms at once
- B a green precipitate forms at once
- C a brown precipitate forms at once
- D a blue precipitate

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

- A a lighted splint pops
- B limewater turns cloudy
- C bromine water turns colourless
- D a glowing splint relights

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13 **What is the end point of a titration?**

A the colour changes

B the solution freezes

C the acid boils

D the flask breaks

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14 **What colour flame does sodium give?**

A yellow

B bright green

C blue

D red

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15 **What is flame emission spectroscopy?**

- **A** analysing the light from a flame
- **B** weighing the sample in a flame
- **C** counting the colours in a flame
- **D** measuring the temperature of a flame

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

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

Understand It with Pulse | Flag a mistake

17 **What does mass spectrometry measure?**

A the colours of a flame

B the volume of a gas

C the masses of particles

D the temperature of a sample

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

A crimson red

B pale lilac

C bright yellow

D green

Understand It with Pulse | Flag a mistake

19 **How can salt be separated from salt water?**

A evaporation

B sieving

C decanting

D filtration through paper

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

A a brown precipitate forms at once

B a green precipitate forms at once

C a white precipitate

D a blue precipitate forms at once

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21 **What is the test for hydrogen?**

A a glowing splint relights

B limewater turns cloudy

C bromine water turns colourless

D a lighted splint pops

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22 **What is a standard solution?**

A one that is very strong

B one that is very weak

C a known concentration

D one with no solute

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23 **How can you test for hydrogen gas?**

- **A** a glowing splint relights
- **B** a lighted splint pops
- **C** limewater turns cloudy
- **D** a damp litmus paper

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

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

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25

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

A orange-red flame

B bright yellow

C pale lilac

D crimson

Understand It with Pulse

Flag a mistake

ANSWER KEY

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

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