ENGLAND GCSE CHEMISTRY OCR TWENTY FIRST CENTURY HIGHER · UNIT 4 · 25 QUESTIONS

# Material Choices — 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 chocolate cake rises in the oven. What makes it rise?**

- A the sugar freezes
- B the flour melts
- C a gas is made
- D the egg evaporates

Understand It with Pulse | Flag a mistake

**2** **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 freezes in the water
- D the paint melts in the water

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3 **A river flows to the sea. What is this part of?**

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

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4 **A wooden footbridge crosses a stream. What force pulls the bridge down?**

- A gravity
- B friction
- C tension
- D upthrust

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

A they dissolve in water

B they are brittle

C they conduct electricity

D they do not conduct electricity at all

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6 **Lemons contain citric acid. What is the pH of lemon juice likely to be?**

A 7

B 2

C 12

D 14

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7 **What is brass made from?**

A copper and tin mixed together

B copper and zinc

C iron and carbon mixed together

D zinc and tin mixed together

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8 **Why do different dyes have different Rf values?**

A they are all the same colour

B they have the same solubility in the solvent

C they move at the same speed

D they dissolve differently in the solvent

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9 **Which of these has a giant covalent structure?**

A diamond

B sodium chloride

C water

D carbon dioxide

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10 **Glass is recycled at 50 percent. How much of 200 tonnes of glass is recycled?**

A 100 tonnes

B 125 tonnes

C 200 tonnes

D 75 tonnes

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11 **Why is diamond a good material for cutting tools?**

- A it is very hard
- B it conducts electricity very well
- C it is soft and easy to shape
- D it melts at a low temperature

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12 **A town sends 200 tonnes of waste to landfill per week. How much waste is that in one year?**

- A 20800 tonnes
- B 10400 tonnes
- C 10300 tonnes
- D 10500 tonnes

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13 **An alloy is 75 percent copper. How much copper is in 400 kg of the alloy?**

A 325 kg

B 275 kg

C 600 kg

D 300 kg

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

A the solvent

B the spots

C the ruler

D the paper

Understand It with Pulse | Flag a mistake

15 **What type of bonding is in magnesium oxide?**

A covalent

B ionic

C metallic

D intermolecular forces

Understand It with Pulse | Flag a mistake

16 **What two things are needed for iron to rust?**

A water and oxygen

B oxygen and salt only

C water and carbon dioxide

D air and sunlight

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17 **Why might two life cycle assessments of the same product disagree?**

A they take different amounts of time to finish

B one of them is always wrong

C they use different data and choices

D they measure different products

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

A 0.75

B 0.38

C 0.53

D 0.47

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19 **Why are alloys used instead of pure metals?**

A they are harder and stronger

B they are cheaper to dig up from the ground

C they melt more easily

D they conduct better

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20 **A town recycles 75 percent of its 400 tonnes of waste. How many tonnes are recycled?**

A 350 tonnes

B 280 tonnes

C 320 tonnes

D 300 tonnes

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**21** **Which of these is a use of nanoparticles in medicine?**

- A carrying drugs to cells
- B making tablets much bigger
- C cooling the body down quickly
- D blocking X-rays in scans

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

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

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

- A making food taste better
- B checking dyes in food
- C heating food more quickly
- D keeping food cold longer

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**24** **What shape is a buckminsterfullerene molecule?**

- A a long straight chain
- B a flat sheet of hexagons
- C a solid cube of atoms
- D a hollow ball

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25

## What type of bonding is in water?

A ionic

B covalent

C intermolecular forces

D metallic

Understand It with Pulse

Flag a mistake

# ANSWER KEY

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

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