ENGLAND GCSE CHEMISTRY EDEXCEL FOUNDATION · UNIT 5 · 25 QUESTIONS

Separate Chemistry 1 — 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 calculator uses a battery. What energy is stored in the battery?**

- A kinetic energy of motion
- B thermal energy from heat
- C chemical energy
- D light energy from the Sun

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2 **A castle is built of limestone. What is limestone made of?**

- A magnesium oxide, a white powder
- B calcium sulfate, found in plaster
- C sodium chloride, common salt
- D calcium carbonate

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

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

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4 **Hardcover books are dropped. What happens to their speed as they fall?**

- A it decreases
- B it increases
- C it stays the same
- D it becomes zero

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

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

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

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

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7 **What are the reactants in a hydrogen fuel cell?**

A hydrogen and carbon dioxide

B hydrogen and oxygen

C hydrogen and nitrogen

D oxygen and nitrogen

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8 **Why do plants need phosphorus?**

A for green leaves that catch the light

B for healthy roots

C for tall stems

D for sweet fruit

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9 **Why is platinum used in a catalytic converter?**

A it melts at a low temperature

B it never reacts with gases

C it is a good catalyst

D it is the cheapest metal

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

A a reversible reaction

B an energy transfer

C a chemical change

D a neutralisation

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11 **A student adds 20 cm cubed of 0.5 mol per cubic decimetre hydrochloric acid to a flask. It exactly neutralises 20 cm cubed of sodium hydroxide solution. What is the concentration of the sodium hydroxide solution?**

- A 0.5 mol/dm³
- B 1 mol/dm³
- C 1.5 mol/dm³
- D 0.25 mol/dm³

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

- A oxygen and salt only
- B water and oxygen
- C air and sunlight
- D water and carbon dioxide

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

A they melt more easily

B they conduct better

C they are harder and stronger

D they are cheaper to dig up from the ground

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14 **What volume does 3 moles of oxygen occupy at room temperature and pressure?**

A 84 dm^3

B 60 dm^3

C 72 dm^3

D 96 dm^3

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15 **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 gain energy and move more
- D they lose energy and slow down a lot

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16 **A thermometer shows a patient's temperature is 39 degrees Celsius. Is this above or below normal body temperature?**

- A below normal
- B impossible to tell
- C exactly normal
- D above normal

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17 **How many moles of solute are in 250 cm cubed of a 1 mol per cubic decimetre solution?**

A 0.25 mol

B 0.5 mol

C 0.75 mol

D 0.125 mol

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18 **Why is pure gold mixed with other metals for jewellery?**

A pure gold is too hard to shape

B pure gold is too dull in colour

C pure gold is too soft

D pure gold melts too easily

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

A they are brittle

B they do not conduct electricity at all

C they dissolve in water

D they conduct electricity

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20 **The maximum possible mass of copper sulfate is 80 g. A student makes 40 g. What is the percentage yield?**

A 40%

B 100%

C 60%

D 50%

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21 **Which pair of metals gives the biggest voltage in a cell?**

A magnesium and copper

B zinc and iron in the same cell

C copper and zinc in the same cell

D iron and copper in the same cell

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22 **At equilibrium, what happens to the amounts of reactants and products?**

A they stay constant

B they keep rising

C they swap places

D they fall to zero

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23 **Why is 450 degrees Celsius used in the Haber process, not a lower temperature?**

- A the rate would be too slow
- B nitrogen freezes at lower temperatures
- C the catalyst melts below that
- D ammonia melts at that temperature

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24 **What is one advantage of a hydrogen fuel cell over a petrol engine?**

- A it is cheaper to build
- B it uses petrol more efficiently
- C it never needs refuelling
- D it makes no carbon dioxide

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25 **What do NPK fertilisers contain?**

A nitrogen, phosphorus and calcium together

B phosphorus, potassium and iron

C nitrogen, potassium and sulfur

D nitrogen, phosphorus and potassium

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ANSWER KEY

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

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