ENGLAND GCSE CHEMISTRY EDEXCEL FOUNDATION · UNIT 3 · 25 QUESTIONS

Chemical Changes — 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 castle built of limestone is damaged by acid rain. Which gas causes acid rain?**

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

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2 **An ice cream cone melts. What is the melting point of the ice cream?**

- A around 37 degrees Celsius
- B around 0 degrees Celsius
- C around 100 degrees Celsius
- D around minus 20 degrees Celsius

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3 **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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4 **A cup of coffee cools down. Energy is transferred to the surroundings. What type of change is this?**

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

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

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

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6 **Paintbrushes apply paint to a wall. What is the paint made of?**

- A a single compound, nothing else
- B pure water with nothing in it
- C a single element, nothing else
- D a mixture of substances

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7 **Why do the carbon anodes in aluminium extraction need replacing?**

- A they are used up making cryolite
- B they melt in the hot electrolyte
- C they dissolve in the aluminium
- D they burn away in oxygen

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8 **When copper sulfate solution is electrolysed with carbon electrodes, what is made at the cathode?**

- A oxygen gas from the water
- B copper
- C hydrogen gas from the water
- D sulfur from the sulfate ions

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9 **Will zinc displace copper from its salt solution?**

A only with a catalyst

B no

C yes

D only when heated

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10 **Which salt is made from hydrochloric acid and sodium hydroxide?**

A sodium chloride

B sodium sulfate

C sodium carbonate

D sodium nitrate

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11 **A solution has a hydrogen ion concentration of 10^{-3}mol per cubic decimetre. What is its pH?**

- A 4
- B 2
- C 3
- D 5

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12 **What forms at the anode during the electrolysis of copper sulfate solution?**

- A hydrogen
- B lead
- C bromine
- D oxygen

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13 **Which two solutions make barium sulfate when mixed?**

A barium chloride and sodium chloride

B sodium sulfate and sodium chloride

C barium chloride and sodium sulfate

D barium nitrate and sodium chloride

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14 **Which acid is a weak acid?**

A ethanoic acid

B hydrochloric acid

C nitric acid

D sulfuric acid

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15 **What is made when an acid reacts with an alkali?**

A a salt and hydrogen

B a salt and oxygen

C a salt and water

D hydrogen only

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16 **How many moles are there in 20 g of a substance with a relative formula mass of 40 ?**

A 0.25

B 1

C 0.5

D 1.5

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17 **Why is cryolite added to aluminium oxide in its electrolysis?**

A it makes the aluminium purer

B it stops the carbon anodes burning

C it lowers the melting point

D it makes the reaction go faster

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18 **What is made at the anode when concentrated hydrochloric acid is electrolysed?**

A hydrogen gas from the acid

B chlorine

C sodium metal from the solution

D oxygen gas from the water

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19 **Which acid makes a nitrate salt?**

A ethanoic acid

B hydrochloric acid

C nitric acid

D sulfuric acid

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20 **What is the negative electrode called?**

A the cell

B the cathode

C the electrolyte

D the anode

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21 **A solution has a hydrogen ion concentration of 10^{-1}mol per cubic decimetre. What is its pH?**

A 1

B 0

C 3

D 2

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22 **What forms at the cathode during the electrolysis of sodium chloride solution?**

A hydrogen

B bromine

C lead

D chlorine

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23 **Why is the precipitate washed with distilled water?**

- A to add more precipitate
- B to remove soluble impurities
- C to make the precipitate dry out fully
- D to dissolve the precipitate

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24 **What is the difference between a strong acid and a weak acid?**

- A a strong acid is more concentrated
- B a strong acid has a higher pH
- C a strong acid is always dangerous
- D a strong acid is fully ionised

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25 **What is neutralisation?**

A a base reacting with water

B an acid reacting with a metal

C an acid reacting with a base

D an acid evaporating

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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