ENGLAND GCSE CHEMISTRY OCR TWENTY FIRST CENTURY FOUNDATION · UNIT 3 · 25 QUESTIONS

Chemicals of the Natural Environment — 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 **Silver coins conduct electricity well. Why?**

- **A** they are shiny and reflective
- **B** they are cold
- **C** they have free electrons
- **D** they are heavy

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2 **A thermometer measures temperature in degrees Celsius. What is the freezing point of water on this scale?**

- A 100
- B 32
- C 0
- D 10

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

- A 12
- B 14
- C 2
- D 7

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4 **A river provides drinking water. Why must the water be treated before drinking?**

- A to heat it up for use
- B to remove harmful substances
- C to add minerals for health
- D to make it taste better for drinking

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

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

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

A never

B yes

C no

D sometimes

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7 **What is the difference between addition and condensation polymerisation?**

A addition loses a small molecule as well

B addition uses only alcohols

C condensation loses a small molecule

D condensation uses only alkenes

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8 **What is made when ethene reacts with steam?**

A ethanol

B carbon dioxide and water

C ethane, a saturated gas

D ethanoic acid, a weak acid

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9 **What is the general formula for alkenes?**

A C_nH_n

B C_nH_{2n+2}

C C_nH_{2n-2}

D C_nH_{2n}

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

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

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11 **What is ethanoic acid found in?**

- **A** petrol, a fuel for cars
- **B** vinegar
- **C** lemon juice, a citrus fruit
- **D** soap, a cleaning product

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12 **When concentrated sodium chloride solution is electrolysed, what is made at the cathode?**

A sodium metal from the solution

B oxygen gas from the water

C hydrogen

D chlorine gas from the salt

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13 **What is poly(ethene) made from?**

A ethene

B methane

C ethane

D propene

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14 **In fractional distillation, where do the smallest molecules come out?**

A in the middle

B at the top

C they do not come out

D at the bottom

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15 **What is a chemical cell?**

A a battery that makes electricity

B a cell that splits water with electricity

C a cell that makes heat from chemicals

D a cell that stores electricity from the mains

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16 **What forms at the cathode during the electrolysis of copper sulfate solution?**

A hydrogen

B bromine

C lead

D copper

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17 **An alkane with 12 carbon atoms is cracked. One product is an alkene with 3 carbon atoms. How many carbon atoms does the other product have?**

A 11

B 10

C 8

D 9

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18 **What is ethanol used for?**

A as a fertiliser for crops

B as a food preservative only

C as a bleach for cleaning

D as a fuel and a solvent

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19 **What is made at the negative electrode in aluminium extraction?**

A cryolite from the mixture

B carbon dioxide gas

C oxygen gas from the air

D aluminium

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20 **What do alkanes make when they burn completely?**

- A carbon and hydrogen
- B carbon monoxide and water
- C oxygen and water
- D carbon dioxide and water

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21 **What happens when an alkene reacts with bromine water?**

- A the bromine water turns cloudy white
- B the bromine water stays orange
- C the bromine water turns colourless
- D the bromine water turns bright blue

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22 **What are alkenes used to make?**

A acids for cleaning

B polymers

C salts for cooking

D fuels for cars and lorries

Understand It with Pulse | Flag a mistake

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

A the anode

B the electrolyte

C the cathode

D the cell

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24 **What is an ester?**

A a compound made from an acid and an alcohol

B a compound made from two acids mixed together

C a compound made from an alkane and water

D a compound made from two alcohols mixed together

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

A chlorine

B sodium metal from the solution

C oxygen gas from the water

D hydrogen gas from the acid

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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