ENGLAND GCSE CHEMISTRY EDEXCEL HIGHER · FINAL EXAM · 50 QUESTIONS

Final Exam — 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 to let Brett know so he can fix it.

1 **Silver coins are made of the element silver. What is the chemical symbol for silver?**

- A Ag
- B S
- C Si
- D Sv

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2 **An ice cream cone melts in the Sun. What is happening to the particles in the ice cream?**

- A they get smaller
- B they gain energy and move more
- C they lose energy and slow down a lot
- D they stop moving

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3 **A cup of coffee is left for an hour. What happens to its temperature?**

A it falls to room temperature

B it rises above room temperature

C it falls to zero degrees

D it stays the same all day

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

A they are cold

B they have free electrons

C they are heavy

D they are shiny and reflective

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5 **A calculator uses a battery. What energy is stored in the battery?**

A chemical energy

B light energy from the Sun

C thermal energy from heat

D kinetic energy of motion

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6 **A thermometer is placed in hot water. What happens to the liquid inside the thermometer?**

A it evaporates

B it freezes

C it expands

D it contracts

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7 **A chocolate cake is made from flour, sugar and eggs. Which ingredient provides protein?**

- A flour
- B sugar
- C eggs
- D water

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

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

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9 **What is flame emission spectroscopy?**

A weighing the sample in a flame

B measuring the temperature of a flame

C analysing the light from a flame

D counting the colours in a flame

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10 **What is the relative formula mass of hydrogen chloride, HCl?**

A 32.5

B 36.5

C 73

D 44.5

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11 **Paintbrushes are used with paint. What is paint an example of?**

A a compound

B a formulation

C an element

D a pure substance

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

A hydrogen

B chlorine gas from the salt

C oxygen gas from the water

D sodium metal from the solution

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13 **In the Haber process, 1 mole of nitrogen reacts with 3 moles of hydrogen. How many moles of hydrogen react with 1 moles of nitrogen?**

- A 4
- B 6
- C 3
- D 2

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14 **What must a system be for equilibrium to be reached?**

- A very hot
- B stirred all the time
- C open to the air
- D closed

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15 **Which side of the periodic table has the non-metals?**

A the left, with the alkali metals

B the right

C the middle, with the transition metals

D the bottom, below the main table

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16 **In the combustion of methane, the energy needed to break the bonds is 800 kJ and the energy released when new bonds form is 1200 kJ. What is the overall energy change?**

A -800 kJ

B 1200 kJ

C 400 kJ

D -400 kJ

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17 **Carbon dioxide is 420 parts per million in the air. How many carbon dioxide molecules are there per million air molecules?**

A 400

B 420

C 4200

D 42

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18 **Which of these is a condensation polymer?**

A polyester

B poly(chloroethene), an addition polymer

C poly(propene), an addition polymer

D poly(ethene), an addition polymer

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19 **What is the relative formula mass of carbon dioxide, CO_2?**

- **A** 40
- **B** 44
- **C** 28
- **D** 32

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20 **What is the test for chlorine?**

- **A** damp litmus paper is bleached
- **B** limewater turns cloudy in the gas
- **C** a lighted splint pops with a squeak
- **D** a glowing splint relights brightly

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21 **What is the half equation for chlorine forming at the anode?**

- **A** $2Cl^- \rightarrow Cl_2$
- **B** $2Cl^- + 2e^- \rightarrow Cl_2$
- **C** $Cl_2 + 2e^- \rightarrow 2Cl^-$
- **D** $2Cl^- \rightarrow Cl_2 + 2e^-$

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22 **Why does aluminium need electrolysis to extract it?**

- **A** it does not conduct electricity at all
- **B** it is too reactive for carbon
- **C** it is found pure in the ground
- **D** it melts at too low a temperature

Understand It with Pulse | Flag a mistake

23 **What mass of potassium hydroxide is needed to make 200 cm cubed of a 0.5 mol per cubic decimetre solution?**

- A 16.8 g
- B 2.8 g
- C 11.2 g
- D 5.6 g

Understand It with Pulse | Flag a mistake

24 **Which group are fluorine, chlorine and iodine in?**

- A Group 7
- B Group 0, with the noble gases
- C Group 1, with the alkali metals
- D Group 2, with the alkaline earth metals

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25 **In a reaction, the energy needed to break bonds is 1000 kJ and the energy released making bonds is 600 kJ. Is the reaction exothermic or endothermic?**

A exothermic, more energy is given out

B exothermic, more energy is taken in

C endothermic, more energy is given out

D endothermic, more energy is taken in

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26 **What is the main greenhouse gas?**

A nitrogen gas from the air

B argon gas from the air

C carbon dioxide

D oxygen gas from the air

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27 **How is pure ethanol obtained from the fermented mixture?**

A by crystallisation

B by chromatography

C by filtration

D by distillation

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28 **An atom has 8 protons and 20 neutrons. What is its mass number?**

A 8

B 30

C 28

D 20

Understand It with Pulse | Flag a mistake

29 **How many atoms of hydrogen are there in one molecule of water?**

A 2

B 4

C 1

D 3

Understand It with Pulse | Flag a mistake

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

A aluminium

B cryolite from the mixture

C carbon dioxide gas

D oxygen gas from the air

Understand It with Pulse | Flag a mistake

31 **Why can carbon extract iron from its ore?**

A iron oxide dissolves in carbon

B iron is more reactive than carbon

C carbon melts at a lower temperature

D carbon is more reactive than iron

Understand It with Pulse | Flag a mistake

32 **A student adds 20 cm cubed of 0.6 mol per cubic decimetre nitric acid to a flask. It exactly neutralises 30 cm cubed of potassium hydroxide solution. What is the concentration of the potassium hydroxide solution?**

A 0.4 mol/dm³

B 0.2 mol/dm³

C 0.8 mol/dm³

D 1.2 mol/dm³

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33 **Why is chlorine used to treat water?**

A to soften hard water in the pipes

B to make the water taste better

C to remove dissolved oxygen gas

D to kill microbes

Understand It with Pulse | Flag a mistake

34 **In the combustion of methane, the energy needed to break the bonds is 800 kJ and the energy released when new bonds form is 1000 kJ. What is the overall energy change?**

A 200 kJ

B -200 kJ

C -800 kJ

D 1000 kJ

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35 **Oxygen is 21 percent of the air. How much oxygen is there in 500 litres of air?**

A 95 L

B 115 L

C 105 L

D 210 L

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36 **What is seen when sodium hydroxide is added to iron(III) chloride solution?**

A a blue precipitate forms at once

B a brown precipitate

C a white precipitate forms at once

D a green precipitate forms at once

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37 **In a reaction, 10 g of A reacts with 6 g of B. What mass of product is made?**

A 16 g

B 6 g

C 10 g

D 4 g

Understand It with Pulse | Flag a mistake

38 **A swimming pool is heated. What happens to the water particles?**

A they get smaller

B they disappear

C they stop moving

D they move faster

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

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

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40 **A chocolate cake rises in the oven. What makes it rise?**

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

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41 **Hardcover books are stacked on a table. What force pulls them down?**

A friction

B tension

C air resistance

D gravity

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42 **What is a group in the periodic table?**

A a single element on its own

B a row running across the table

C a column

D a block of metals only

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43 **In a second experiment, 30 cm cubed of gas are made in 15 seconds. What is the rate of the reaction?**

A 3.5 cm^3/s

B 2.5 cm^3/s

C 1.5 cm^3/s

D 2 cm^3/s

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44 **A forest absorbs carbon dioxide. Which process does this?**

A decomposition in the soil

B respiration in the trees

C combustion of the wood

D photosynthesis

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45 **Why are instrumental methods better than chemical tests?**

- A they work on solids only
- B they are cheap and need no training at all
- C they need no sample at all
- D they are fast, sensitive and accurate

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

- A they dissolve in water
- B they conduct electricity
- C they do not conduct electricity at all
- D they are brittle

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47 **In a chromatogram, a spot moves 6 cm and the solvent moves 8 cm. What is the Rf value?**

- A 0.9
- B 0.85
- C 1.5
- D 0.75

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48 **What is the pH of a neutral solution?**

- A 0
- B 1
- C 7
- D 14

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49 **What is reduction?**

A gain of a metal from an ore

B gain of oxygen by a substance

C loss of oxygen

D loss of a metal from an ore

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50 **What is the main metal in steel?**

A nickel

B chromium

C iron

D carbon

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ANSWER KEY

1.	A	**18.**	A	**35.**	C
2.	B	**19.**	B	**36.**	B
3.	A	**20.**	A	**37.**	A
4.	B	**21.**	D	**38.**	D
5.	A	**22.**	B	**39.**	A
6.	C	**23.**	D	**40.**	C
7.	C	**24.**	A	**41.**	D
8.	B	**25.**	D	**42.**	C
9.	C	**26.**	C	**43.**	D
10.	B	**27.**	D	**44.**	D
11.	B	**28.**	C	**45.**	D
12.	A	**29.**	A	**46.**	B
13.	C	**30.**	A	**47.**	D
14.	D	**31.**	D	**48.**	C
15.	B	**32.**	A	**49.**	C
16.	D	**33.**	D	**50.**	C
17.	B	**34.**	B		

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