ENGLAND GCSE CHEMISTRY AQA 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 conduct electricity well. Why?**

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

Understand It with Pulse | Flag a mistake

2 **Glass marbles are used to model atoms. What is a limitation of the model?**

- A marbles are the wrong colour for atoms
- B marbles cannot be counted accurately at all
- C marbles are much bigger than atoms
- D marbles are too small to see properly

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

A sugar

B eggs

C water

D flour

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4 **An ice cream cone is put in a freezer. What happens to the liquid?**

A it condenses

B it evaporates

C it freezes

D it boils

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

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

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

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

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

A the water cycle

B the nitrogen cycle

C the rock cycle

D the carbon cycle

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8 **How do you test for carbonate ions?**

A silver nitrate gives a precipitate

B acid gives off carbon dioxide

C a squeaky pop

D a lilac flame

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

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

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10 **A cheese pizza provides energy. Which nutrient provides most energy?**

- A protein
- B fibre
- C vitamins
- D fat

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11 **Which element has the electronic structure 2,8,1?**

- **A** magnesium, which has two outer electrons
- **B** sodium
- **C** chlorine, which has seven outer electrons
- **D** argon, which has a full outer shell

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12 **What are fullerenes?**

- **A** flat sheets of carbon one atom thick
- **B** long chains of carbon atoms in a row
- **C** molecules of carbon in hollow shapes
- **D** solid blocks of carbon atoms

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13 **What is the mass of 2 moles of a substance with a relative formula mass of 20?**

- A 20 g
- B 80 g
- C 50 g
- D 40 g

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

- A sodium sulfate and sodium chloride
- B barium chloride and sodium chloride
- C barium nitrate and sodium chloride
- D barium chloride and sodium sulfate

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15 **In a reaction, the energy needed to break bonds is 800 kJ and the energy released making bonds 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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16 **In an experiment, 40 cubic centimetres of gas are made in 30 seconds. What is the rate of the reaction?**

A 2.6667 cm^3/s

B 0.6667 cm^3/s

C 1200 cm^3/s

D 1.3333 cm^3/s

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

A at the top

B in the middle

C they do not come out

D at the bottom

Understand It with Pulse | Flag a mistake

18 **Why is flame emission spectroscopy useful?**

A it works on solids only

B it needs no sample at all

C it can identify very small amounts

D it works without any equipment at all

Understand It with Pulse | Flag a mistake

19 **What is one effect of climate change on weather?**

A colder summers everywhere

B more extreme weather

C less rain everywhere

D weather stays the same

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20 **Why is recycling metals good?**

A it saves energy and resources

B it makes metals cheaper to buy

C it makes metals heavier to carry

D it makes metals stronger and harder

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

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

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22 **An atom of magnesium loses 2 electrons. What is the charge on the ion formed?**

- **A** 0
- **B** +2
- **C** +1
- **D** -2

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23 **What volume does 2 moles of carbon dioxide occupy at room temperature and pressure?**

- **A** 36 dm^3
- **B** 48 dm^3
- **C** 60 dm^3
- **D** 96 dm^3

Understand It with Pulse | Flag a mistake

24 **Which acid makes a sulfate salt?**

- **A** sulfuric acid
- **B** ethanoic acid
- **C** hydrochloric acid
- **D** nitric acid

Understand It with Pulse | Flag a mistake

25 **What is the temperature change in an exothermic reaction?**

- A it rises
- B it becomes zero
- C it stays the same
- D it falls

Understand It with Pulse | Flag a mistake

26 **In an experiment, 40 cubic centimetres of gas are made in 10 seconds. What is the rate of the reaction?**

- A 4 cm^3/s
- B 400 cm^3/s
- C 2 cm^3/s
- D 8 cm^3/s

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27 **What happens to the boiling point of alkanes as the molecules get bigger?**

A it decreases

B it falls to zero

C it stays the same

D it increases

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28 **What is the test for carbon dioxide?**

A bromine water turns colourless

B a lighted splint pops

C a glowing splint relights

D limewater turns cloudy

Understand It with Pulse | Flag a mistake

29 **What is the enhanced greenhouse effect?**

A cooling from extra cloud cover

B warming from the Sun getting hotter over time

C extra warming from human activities

D warming from volcanoes erupting

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30 **A town uses 2000 litres of water per day. How much water does it use in one week?**

A 28000 L

B 13000 L

C 15000 L

D 14000 L

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31 **Who discovered the neutron?**

A Chadwick

B Bohr, who described shells

C Thomson, who found the electron

D Dalton, who first described atoms

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32 **In which state are the particles closest together?**

A plasma

B gas

C liquid

D solid

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33 **Which piece of apparatus measures the volume of acid in a titration?**

- **A** a burette
- **B** a measuring cylinder
- **C** a beaker
- **D** a pipette

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

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

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35

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

A never

B no

C sometimes

D yes

Understand It with Pulse | Flag a mistake

36

Which factor increases the rate of a reaction?

A a lower temperature

B larger pieces

C a lower concentration

D a higher temperature

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37 **An alkane with 14 carbon atoms is cracked. One product is an alkene with 4 carbon atoms. How many carbon atoms does the other product have?**

- A 11
- B 12
- C 10
- D 9

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38 **How many atoms of oxygen are there in one molecule of water?**

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

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39 **Which gas causes acid rain?**

A oxygen

B nitrogen

C sulfur dioxide

D carbon dioxide

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40 **A forest is cut down. What happens to the carbon stored in the trees?**

A it is released

B it turns to oxygen

C it is stored forever

D it disappears

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41 **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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42 **What does adding carbon to iron do?**

A it makes it conduct less heat

B it makes it melt more easily

C it makes it softer and weaker

D it makes it harder

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

A an alkali is present

B a metal is present

C an acid is present

D a salt is present

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44 **Which salt is made from sulfuric acid and copper oxide?**

A copper sulfate

B copper nitrate

C copper chloride

D copper carbonate

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

A it stays the same all day

B it falls to zero degrees

C it falls to room temperature

D it rises above room temperature

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46 **What happens to the yield of ammonia if more nitrogen is added?**

A it stays the same

B it increases

C the reaction stops

D it decreases

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47 **An alkane has 5 carbon atoms. How many hydrogen atoms does one molecule have?**

A 14

B 8

C 12

D 10

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48 **Which of these is a formulation?**

A salt

B oxygen

C water

D paint

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49 **Carbon dioxide levels rose from 320 ppm to 420 ppm. What is the increase?**

A 140 ppm

B 100 ppm

C 80 ppm

D 120 ppm

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50 **How is salt removed from sea water?**

A by filtration

B by chlorination

C by sedimentation

D by distillation

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ANSWER KEY

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

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