ENGLAND GCSE COMBINED SCIENCE OCR GATEWAY FOUNDATION · UNIT 7 · 25 QUESTIONS

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

- A friction
- B tension
- C gravity
- D air resistance

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2 **A swimming pool holds water. Why does a person float in the pool?**

- A they are made of air
- B their density is close to water
- C they are heavier than water and sink
- D the water pushes them down

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3 **Glass marbles are shaken in a tray. What does this model?**

- A particles freezing into place
- B particles gaining energy
- C particles bonding together
- D particles disappearing completely

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

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

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

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

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6 **A hot air balloon cools down. What happens?**

- A it bursts
- B it stays still
- C it sinks
- D it rises faster

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7 **An element is in period 4 of the periodic table. How many electron shells do its atoms have?**

- A 4
- B 6
- C 5
- D 3

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8 **An atom has 17 protons. How many electrons does the neutral atom have?**

- A 16
- B 17
- C 19
- D 18

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9 **Which of these is a typical property of a metal?**

A it does not conduct heat

B it is dull

C it conducts electricity

D it is brittle

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10 **What is the centre of an atom called?**

A the electron shell

B the proton

C the neutron

D the nucleus

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11 **An element, copper, has isotopes. 69 percent have a mass of 63 and 31 percent have a mass of 65. What is the relative atomic mass of copper?**

- A 64.1
- B 63.6
- C 64.6
- D 62.6

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12 **Do isotopes of the same element have the same mass number?**

- A yes, they are identical in every way
- B no, their mass numbers differ
- C no, their proton numbers differ
- D yes, their mass numbers are the same

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13 **Which group contains the alkali metals?**

A Group 2

B Group 0

C Group 1

D Group 7

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14 **What did Bohr suggest about electrons?**

A they sit in shells at fixed distances

B they sit inside the nucleus

C they move about at random anywhere in the atom

D they are stuck in a ball of charge

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15 What is the electronic structure of chlorine (atomic number 17)?

- A 2,8,8
- B 2,7,8
- C 2,8,6
- D 2,8,7

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

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

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17 **How did Mendeleev arrange the elements?**

A by the date each was found

B by colour and appearance

C by atomic number in order

D by atomic mass

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18 **How many electrons can the first shell hold?**

A 8

B 4

C 2

D 1

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19 **An atom has 17 protons and 6 neutrons. What is its mass number?**

A 25

B 23

C 17

D 6

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20 **What is the mass of an electron compared with a proton?**

A very small

B zero

C about the same

D much larger

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21 **Why are isotopes with the same proton number the same element?**

A the electron number decides the element

B the neutron number decides the element

C the proton number decides the element

D the mass number decides the element

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22 **An atom of sodium loses 1 electron. What is the charge on the ion formed?**

A +1

B 0

C +2

D -1

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23 **Why did Mendeleev leave gaps in his periodic table?**

- **A** for elements that do not exist
- **B** to make the table look tidy
- **C** for elements not yet found
- **D** for gases that cannot be stored

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24 **An element is in Group 2. How many electrons are in its outer shell?**

- **A** 8
- **B** 2
- **C** 1
- **D** 7

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25

An element is in period 2 of the periodic table. How many electron shells do its atoms have?

A 4

B 1

C 3

D 2

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Flag a mistake

ANSWER KEY

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

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