ARKANSAS CHEMISTRY · UNIT 1 · 25 QUESTIONS

Matter and Atomic Structure — 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 **Matter is anything that has mass and takes up**

- A Energy only
- B Space
- C Charge only
- D Colour only

Understand It with Pulse | Flag a mistake

2 **A pure substance has a fixed composition, unlike a mixture which has**

- A Fixed composition always
- B Variable composition
- C No mass
- D Only one element

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3 **An element cannot be broken down into simpler substances by**

A Filtration

B Distillation

C Ordinary chemical means

D Melting

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4 **A compound is a pure substance made of two or more elements chemically**

A Mixed without bonding

B Separated by filtration

C Combined in any ratio

D Combined in fixed proportions

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5 **Salt water is best classified as a**



A Homogeneous mixture

B Pure compound

C Pure element

D Heterogeneous mixture

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6 **Sand mixed with water is best classified as a**

A Homogeneous mixture

B Heterogeneous mixture

C Pure compound

D Solution

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7 **Filtration can separate sand from water because sand particles are**



A Dissolved in water

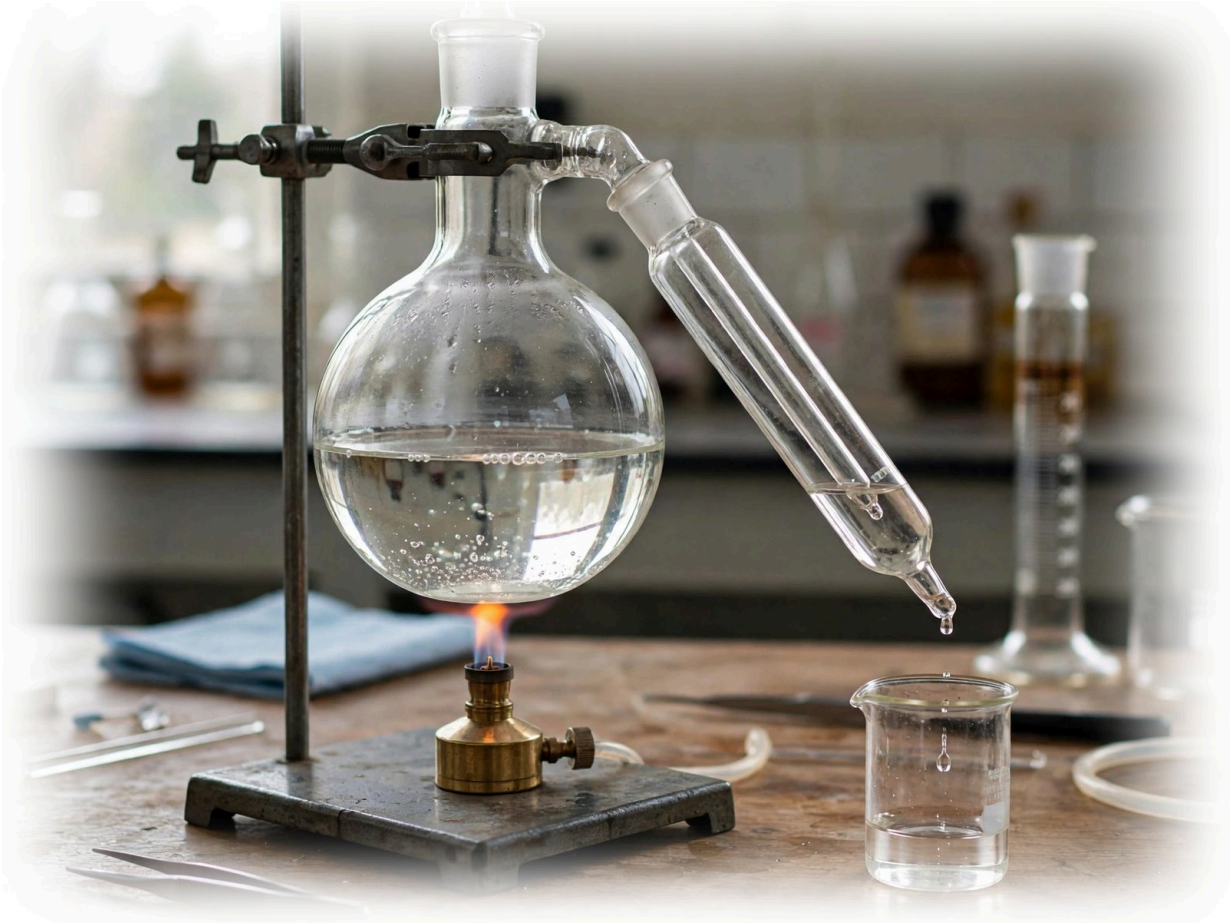
B Chemically bonded to water

C Too large to pass through filter paper

D Smaller than water molecules

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8 **Distillation separates liquids by differences in**



A Colour

B Density only

C Mass only

D Boiling point

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9 **A physical change alters form but not composition, for example**

- A Melting ice
- B Burning wood
- C Rusting iron
- D Baking bread

Understand It with Pulse | Flag a mistake

10 **A chemical change produces a new substance, for example**

- A Melting ice
- B Burning wood
- C Dissolving salt
- D Breaking glass

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11 **An atom is the smallest unit of an element that retains its**

A Mass only

B Colour only

C Chemical properties

D Temperature

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12 **Protons are found in the nucleus and have a**

A Negative charge

B No charge

C Variable charge

D Positive charge

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13 **Neutrons are found in the nucleus and have**

A No charge

B Positive charge

C Negative charge

D Double positive charge

Understand It with Pulse | Flag a mistake

14 **Electrons are found outside the nucleus and have a**

A Positive charge

B Negative charge

C No charge

D Double negative charge

Understand It with Pulse | Flag a mistake

15 **The atomic number of an element equals the number of**

- A Neutrons + protons
- B Electrons + neutrons
- C Protons in its atoms
- D Neutrons only

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16 **Isotopes of an element have the same number of protons but different numbers of**

- A Electrons
- B Protons
- C Atoms
- D Neutrons

Understand It with Pulse | Flag a mistake

17 **Carbon 12 and carbon 14 are isotopes because both have 6 protons, but carbon 14 has more**

A Neutrons

B Electrons

C Protons

D Molecules

Understand It with Pulse | Flag a mistake

18 **The mass number of an atom equals protons plus**

A Electrons

B Neutrons

C Atoms

D Ions

Understand It with Pulse | Flag a mistake

19 **An atom with 11 protons, 12 neutrons, and 11 electrons is electrically**

A Positive

B Negative

C Neutral

D An isotope of neon

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20 **An ion forms when an atom gains or loses**

A Protons

B Neutrons

C Nuclei

D Electrons

Understand It with Pulse | Flag a mistake

21 **A sodium atom loses one electron to form an ion with charge**

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

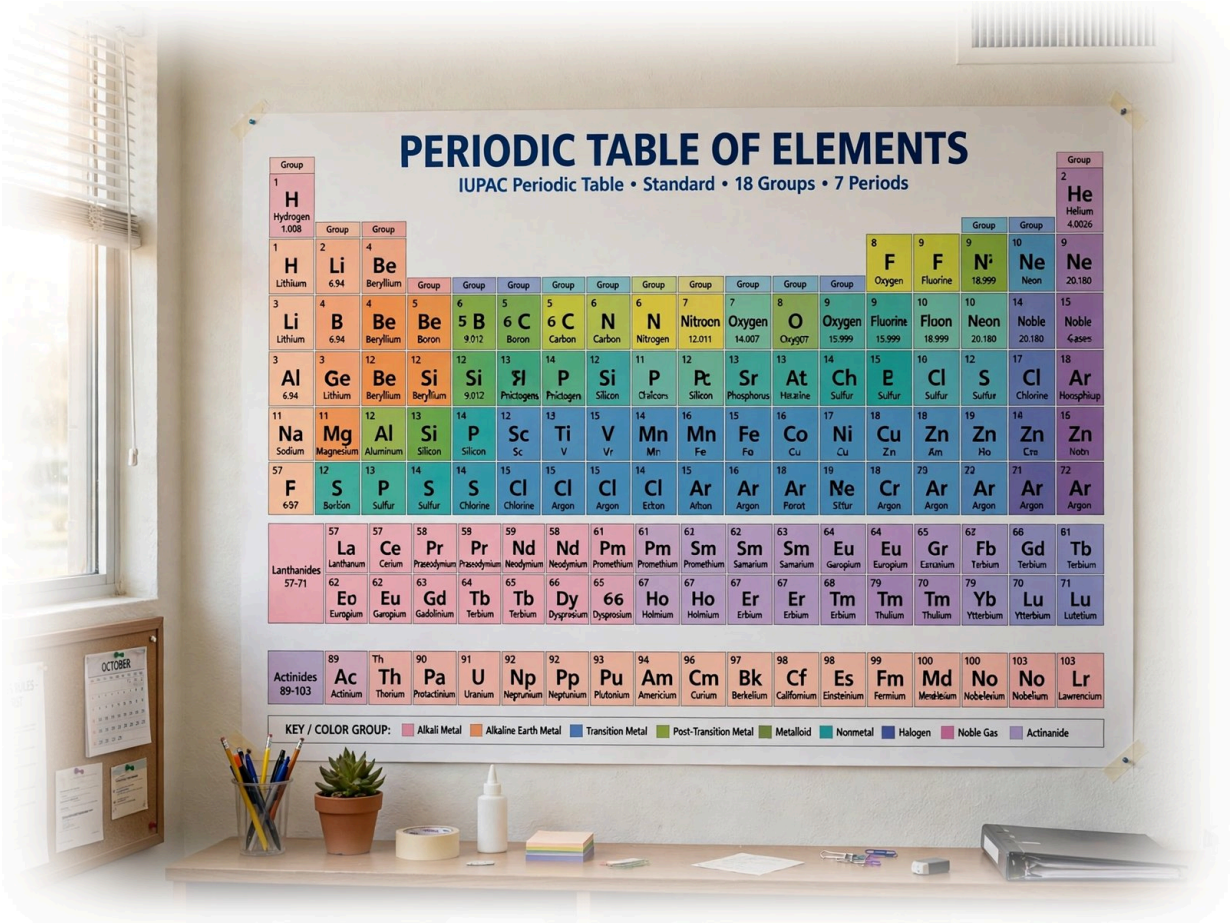
Understand It with Pulse | Flag a mistake

22 **A chloride ion forms when chlorine gains one electron, giving it charge**

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

Understand It with Pulse | Flag a mistake

23 **The modern periodic table orders elements by increasing**



A Atomic mass only

B Density

C Atomic number

D Reactivity only

Understand It with Pulse | Flag a mistake

24 **Elements in the same group of the periodic table tend to have similar**

A Atomic masses exactly

B Densities exactly

C Colours

D Chemical properties

Understand It with Pulse | Flag a mistake

25 **Noble gases are generally unreactive because their outer electron shells are**



A Full

B Empty

C Half full

D Unstable

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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