CHEMISTRY · ARIZONA

Chemistry

Practice Test

Unit 1: Matter and Atomic Structure

25 Questions

Original practice test based on the Arizona curriculum. Work through each question, then check your answers at the end.

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.

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Question 1

Which change is a chemical change

A) Dissolving salt in water

B) Breaking a glass

C) Melting ice

D) Rusting iron

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Question 2

A sample has mass 80 g and volume 20 cm^3.

Its density, in grams per cm^3, is

A) 4

B) 0.25

C) 100

D) 1600

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Question 3

A sample has mass 45 g and volume 15 mL. Its density, in grams per millilitre, is ____

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Question 4

Which particle carries a negative electric charge

A) Proton

B) Neutron

C) Electron

D) Positron

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Question 5

The nucleus of an atom contains

A) Protons and electrons

B) Neutrons and electrons

C) Protons and neutrons

D) Electrons only

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Question 6

An atom has atomic number 26 and mass number 56. The number of neutrons in the atom is ____

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Question 7

Two atoms are isotopes when they have the same number of protons but different numbers of

A) Electrons

B) Neutrons

C) Protons

D) Energy levels

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Question 8

The chemical symbol for potassium is

A) K

B) P

C) Po

D) Pt

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Question 9

Chlorine 37 has atomic number 17. The number of neutrons in this atom is ____

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Question 10

Which of these is a compound

A) O_2

B) NaCl

C) Fe

D) He

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Question 11

Which of these is a homogeneous mixture

A) Salt water

B) Sand and water

C) Oil and water

D) Iron filings and sulfur

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Question 12

In the Bohr model, electrons are found in

A) Neutron shells

B) The nucleus

C) Fixed energy levels

D) Protons

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Question 13

A neutral atom has 12 protons. The number of electrons it has is ____

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Question 14

Elements in Group 1 of the periodic table are called

A) Halogens

B) Noble gases

C) Alkali metals

D) Transition metals

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Question 15

Which element is a noble gas

A) Ne

B) Cl

C) Na

D) Ca

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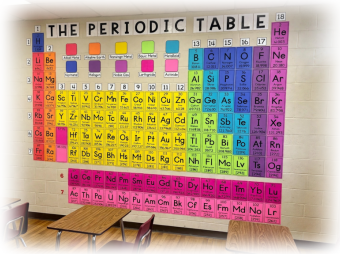

Question 16

Atomic radius generally increases when moving

A) Across a period left to right

B) Down a group

C) Up a group

D) Across a period right to left

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Question 17

An atom has 8 protons and 9 neutrons. Its mass number is ____

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Question 18

Which state of matter has a definite volume but no definite shape

A) Gas

B) Plasma

C) Solid

D) Liquid

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Question 19

Sublimation is the change from a solid directly to a

A) Liquid

B) Gas

C) Plasma

D) Solution

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Question 20

Which particle is found in shells around the nucleus

A) Photon

B) Proton

C) Neutron

D) Electron

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Question 21

A calcium ion carries a double positive charge and has 20 protons. The number of electrons it has is ____

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Question 22

Neon has atomic number 10. How many electrons are in its outermost shell

A) 2

B) 8

C) 10

D) 1

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Question 23

Which of these is a physical property

A) Density

B) Reactivity with acid

C) Ability to burn

D) Tendency to rust

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Question 24

The idea that atoms of the same element are identical comes from

A) Thomson

B) Schrodinger

C) Dalton

D) Bohr

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Question 25

A beaker holds 250 mL of water. Water has density 1 gram per millilitre. The mass of the water, in grams, is ____

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ANSWER KEY

1. D
2. A
3. 3
4. C
5. C
6. 30
7. B
8. A
9. 20
10. B
11. A
12. C
13. 12
14. C
15. A
16. B
17. 17
18. D
19. B
20. D
21. 18
22. B
23. A
24. C
25. 250

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