MISSOURI CHEMISTRY · UNIT 1 · 25 QUESTIONS

Matter and Atomic Structure, 25-question test — 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

Which particle has a negative charge

Question 1

Which particle has a negative charge

A) Proton

B) Neutron

C) Electron

D) Nucleus

- A Proton
- B Neutron
- C Electron
- D Nucleus

Understand It with Pulse

Flag a mistake

2 An atom has 11 protons and 12 neutrons. The element is

Question 2

An atom has 11 protons and 12 neutrons. The element is

A) sodium

B) magnesium

C) neon

D) aluminum

- A sodium
- B magnesium
- C neon
- D aluminum

Understand It with Pulse | Flag a mistake

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

Question 3

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

ANSWER _____

Understand It with Pulse | Flag a mistake

4 Isotopes of an element have the same number of

Question 4

Isotopes of an element have the same number of

A) neutrons but different numbers of protons

B) protons but different numbers of neutrons

C) electrons but different numbers of protons

D) protons and neutrons in every case

A neutrons but different numbers of protons

B protons but different numbers of neutrons

C electrons but different numbers of protons

D protons and neutrons in every case

Understand It with Pulse

Flag a mistake

5 A neutral atom has 8 protons. The number of electrons it has is

Question 5

A neutral atom has 8 protons. The number of electrons it has is

A) 6 B) 8

C) 10 D) 16

- **A** 6
- **B** 8
- **C** 10
- **D** 16

Understand It with Pulse | Flag a mistake

6 Magnesium has atomic number 12. The number of electrons in Mg^{2+} is _____

Question 6

Magnesium has atomic number 12. The number of electrons in Mg^{2+} is ____

ANSWER _____

Understand It with Pulse | Flag a mistake

7 The mass number of an atom is the sum of its

Question 7

The mass number of an atom is the sum of its

A) protons and electrons

B) neutrons only

C) protons and neutrons

D) electrons and neutrons

A protons and electrons

B neutrons only

C protons and neutrons

D electrons and neutrons

Understand It with Pulse

Flag a mistake

8 The element in group 2 and period 4 is

Question 8

The element in group 2 and period 4 is

A) potassium

B) calcium

C) strontium

D) argon

A potassium

B calcium

C strontium

D argon

Understand It with Pulse

Flag a mistake

9 Sulfur is in group 16. The number of valence electrons it has is _____

Question 9

Sulfur is in group 16. The number of valence electrons it has is ____

ANSWER

Understand It with Pulse

Flag a mistake

10 Going down a group in the periodic table, atomic radius generally

Question 10

Going down a group in the periodic table, atomic radius generally

A) decreases because nuclear charge increases

B) stays the same in every group

C) decreases because electrons are lost

D) increases because a new energy level is added

- **A** decreases because nuclear charge increases
- **B** stays the same in every group
- **C** decreases because electrons are lost
- **D** increases because a new energy level is added

Understand It with Pulse | Flag a mistake

11 Going across a period from left to right, ionization energy generally

Question 11

Going across a period from left to right, ionization energy generally

A) increases

B) decreases

C) stays the same

D) falls to zero

A increases

B decreases

C stays the same

D falls to zero

Understand It with Pulse

Flag a mistake

12 A cation forms when a neutral atom

Question 12

A cation forms when a neutral atom

A) loses electrons

B) gains electrons

C) gains protons

D) loses neutrons

- A gains electrons
- B gains protons
- C loses electrons
- D loses neutrons

Understand It with Pulse | Flag a mistake

13 An atom has 26 protons and 30 neutrons. Its mass number is ____

Question 13

An atom has 26 protons and 30 neutrons. Its mass number is ____

ANSWER _____

Understand It with Pulse | Flag a mistake

14 In the Bohr model of the atom, electrons are described as

Question 14

In the Bohr model of the atom, electrons are described as

A) orbiting inside the nucleus

B) occupying energy levels around the nucleus

C) mixed with protons in shells

D) fixed in the nucleus

- **A** orbiting inside the nucleus
- **B** occupying energy levels around the nucleus
- **C** mixed with protons in shells
- **D** fixed in the nucleus

Understand It with Pulse | **Flag a mistake**

15 Which of these is an element

Question 15

Which of these is an element

A) salt water

B) air

C) iron

D) brass

- **A** salt water
- **B** air
- **C** iron
- **D** brass

Understand It with Pulse | Flag a mistake

16 The number of protons in a carbon-14 atom is _____

Question 16

The number of protons in a carbon – 14 atom is ____

ANSWER _____

Understand It with Pulse | Flag a mistake

17 Which of these is a heterogeneous mixture

Question 17

Which of these is a heterogeneous mixture

A) salt dissolved in water

B) sand and water

C) air

D) sugar dissolved in water

A salt dissolved in water

B sand and water

C air

D sugar dissolved in water

Understand It with Pulse

Flag a mistake

18 Which of these is a physical change

Question 18

Which of these is a physical change

A) burning wood

B) rusting iron

C) melting ice

D) baking a cake

- A burning wood
- B rusting iron
- C melting ice
- D baking a cake

Understand It with Pulse | Flag a mistake

19 A sample has mass 50 g and volume 25 cm³. Its density, in grams per cubic centimeter, is _____

Question 19

A sample has mass 50 g and volume 25 cm^3. Its density, in grams per cubic centimeter, is ____

ANSWER _____

Understand It with Pulse | Flag a mistake

20 The electron arrangement of a sodium atom is

Question 20

The electron arrangement of a sodium atom is

A) 2, 8, 2

B) 2, 8, 1

C) 2, 7, 2

D) 2, 8, 0

A 2, 8, 2

B 2, 8, 1

C 2, 7, 2

D 2, 8, 0

Understand It with Pulse

Flag a mistake

21 Going down a group, electronegativity generally

Question 21

Going down a group, electronegativity generally

A) increases

B) stays the same

C) becomes zero

D) decreases

A increases

B stays the same

C becomes zero

D decreases

Understand It with Pulse

Flag a mistake

22 Using whole number atomic masses (H = 1, O = 16), the molar mass of water, in grams per mole, is _____

Question 22

Using whole number atomic masses (H = 1, O = 16), the molar mass of water, in grams per mole, is

____

ANSWER

Understand It with Pulse

Flag a mistake

23 Carbon dioxide is a compound because it

Question 23

Carbon dioxide is a compound because it

A) contains only one element

B) is a mixture of gases

C) can be separated by filtering

D) contains two elements chemically bonded

A contains only one element

B is a mixture of gases

C can be separated by filtering

D contains two elements chemically bonded

Understand It with Pulse

Flag a mistake

24 Which particles are found in the nucleus of an atom

Question 24

Which particles are found in the nucleus of an atom

A) protons and neutrons

B) electrons and protons

C) electrons only

D) neutrons only

- A protons and neutrons
- B electrons and protons
- C electrons only
- D neutrons only

Understand It with Pulse | Flag a mistake

25 Using whole number atomic masses (Ca = 40, C = 12, O = 16), the molar mass of calcium carbonate, in grams per mole, is _____

Question 25

Using whole number atomic masses (Ca = 40, C = 12, O = 16), the molar mass of calcium carbonate, in grams per mole, is ____

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. C
2. A
3. 20
4. B
5. B
6. 10
7. C
8. B
9. 6
10. D
11. A
12. C
13. 56
14. B
15. C
16. 6
17. B
18. C
19. 2
20. B
21. D
22. 18
23. D
24. A
25. 100

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