

Chemistry Fundamentals Quiz

Chemistry · Practice Test · 25 Questions

1. In what year did John Dalton publish his atomic theory in 'A New System of Chemical Philosophy'?

- A) 1808
- B) 1785
- C) 1902
- D) 1850

2. How many protons does a neutral Carbon atom have in its nucleus?

- A) 4
- B) 6
- C) 8
- D) 12

3. What is the standard freezing point of water in degrees Celsius at sea level?

- A) 0
- B) 32
- C) 100
- D) -1

4. Who is widely credited with arranging the first version of the Periodic Table in 1869?

- A) Marie Curie
- B) Dmitri Mendeleev
- C) Niels Bohr
- D) Isaac Newton

5. How many valence electrons does a neutral atom of Neon have?

- A) 2
- B) 8
- C) 10
- D) 18

6. What is the atomic number of Hydrogen?

- A) 1
- B) 2
- C) 3
- D) 4

7. Which scientist is known for the 1661 publication 'The Sceptical Chymist'?

- A) Robert Boyle
- B) Antoine Lavoisier
- C) John Dalton
- D) Henry Cavendish

8. The prefix 'milli-' represents what power of ten?

- A) 10^{-1}
- B) 10^{-2}
- C) 10^{-3}
- D) 10^{-6}

9. How many grams are in one kilogram?

- A) 10
- B) 100
- C) 1000
- D) 10000

10. What is the chemical symbol for Gold?

- A) Ag
- B) Au
- C) Fe
- D) Gd

11. In which year did Antoine Lavoisier publish the first modern chemistry textbook, 'Traité Élémentaire de Chimie'?

- A) 1789
- B) 1800
- C) 1750
- D) 1820

12. How many atoms of oxygen are in one molecule of water (H₂O)?

- A) 1
- B) 2
- C) 3
- D) 4

13. What is the approximate percentage of Nitrogen in Earth's atmosphere?

- A) 21%
- B) 78%
- C) 0.04%
- D) 50%

14. How many states of matter are traditionally taught in basic chemistry?

- A) 2
- B) 3
- C) 5
- D) 7

15. What is the atomic mass unit (amu) of a single proton approximately equal to?

- A) 1
- B) 10
- C) 100
- D) 0.5

16. Which element has the atomic number 8?

- A) Nitrogen
- B) Oxygen
- C) Fluorine
- D) Carbon

17. What century did the transition from Alchemy to modern Chemistry primarily occur?

- A) 15th
- B) 17th
- C) 19th
- D) 20th

18. How many electrons can the first electron shell of an atom hold?

- A) 2
- B) 4
- C) 8
- D) 18

19. At what temperature in Kelvin does water boil at 1 atmosphere of pressure?

- A) 273 K
- B) 373 K
- C) 100 K
- D) 473 K

20. The 'Law of Conservation of Mass' was proposed by which chemist in the late 18th century?

- A) Antoine Lavoisier
- B) Dmitri Mendeleev
- C) John Dalton
- D) Ernest Rutherford

21. How many periods are there in the standard modern Periodic Table?

- A) 7
- B) 8
- C) 10
- D) 18

22. What is the chemical symbol for Iron?

- A) I
- B) Ir
- C) Fe
- D) In

23. Which group number on the Periodic Table contains the Noble Gases?

- A) 1
- B) 2
- C) 17
- D) 18

24. How many neutrons are typically in a common Hydrogen-1 isotope nucleus?

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

25. What is the value of Avogadro's number rounded to the nearest integer for moles?

- A) 6.022×10^{23}
- B) 3.14×10^{23}
- C) 9.81×10^{23}
- D) 1.60×10^{-19}