

Chemical Milestones and Constants

Chemistry · Practice Test · 12 Questions

1. In what year did Dmitri Mendeleev publish his first version of the Periodic Table of Elements?

- A) 1869
- B) 1875
- C) 1882
- D) 1890

2. How many elements are currently officially recognized on the IUPAC Periodic Table?

- A) 108
- B) 118
- C) 128
- D) 138

3. What is the approximate value of Avogadro's constant, representing the number of particles in one mole?

- A) 6.022×10^{21}
- B) 6.022×10^{22}
- C) 6.022×10^{23}
- D) 6.022×10^{24}

4. Who is credited with the discovery of the element Oxygen in 1774?

- A) Antoine Lavoisier
- B) Joseph Priestley
- C) John Dalton
- D) Robert Boyle

5. What is the atomic number of the element Gold?

- A) 47
- B) 79
- C) 82
- D) 92

6. Marie Curie was awarded her first Nobel Prize in Physics in which year?

- A) 1901
- B) 1903
- C) 1905
- D) 1911

7. Standard atmospheric pressure at sea level is defined as how many kilopascals (kPa)?

- A) 95.2 kPa
- B) 101.3 kPa
- C) 105.5 kPa
- D) 110.1 kPa

8. How many valence electrons does a neutral atom of Carbon have in its ground state?

- A) 2
- B) 4
- C) 6
- D) 8

9. What is the pH value of pure water at a temperature of 25 degrees Celsius?

- A) 5.0
- B) 6.0
- C) 7.0
- D) 8.0

10. The isotope Carbon-14 is commonly used for radiocarbon dating; how many neutrons does it possess?

- A) 6
- B) 8
- C) 10
- D) 14

11. Which scientist proposed the 'Plum Pudding' model of the atom in 1904?

- A) J.J. Thomson
- B) Ernest Rutherford
- C) Niels Bohr
- D) James Chadwick

12. What is the maximum number of electrons that can occupy the second electron shell (n=2) of an atom?

- A) 2
- B) 8
- C) 18
- D) 32