

Physical Science Fundamentals

Physical Science · Answer Key · 25 Questions

1. Which subatomic particle carries a negative electrical charge?

- A) Proton
- B) Neutron
- C) Electron**
- D) Positron

2. What is the unit of measurement for electrical resistance?

- A) Volt
- B) Ampere
- C) Ohm**
- D) Watt

3. Which state of matter has a definite volume but no definite shape?

- A) Solid
- B) Liquid**
- C) Gas
- D) Plasma

4. What is the chemical symbol for the element Gold?

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

5. Which law states that for every action, there is an equal and opposite reaction?

- A) Newton's First Law
- B) Newton's Second Law
- C) Newton's Third Law**
- D) Hooke's Law

6. What type of bond involves the sharing of electron pairs between atoms?

- A) Ionic bond
- B) Covalent bond**
- C) Metallic bond
- D) Hydrogen bond

7. In the periodic table, what do elements in the same group share?

- A) Same number of protons
- B) Same number of valence electrons**
- C) Same atomic mass
- D) Same number of energy levels

8. What is the process of a gas turning directly into a solid called?

- A) Deposition**
- B) Sublimation
- C) Condensation
- D) Evaporation

9. Which form of electromagnetic radiation has the longest wavelength?

- A) X-rays
- B) Visible light
- C) Radio waves**
- D) Gamma rays

10. What is the pH level of a neutral solution at 25 degrees Celsius?

- A) 0
- B) 7**
- C) 10
- D) 14

11. Which quantity is defined as the rate of change of velocity?

- A) Speed
- B) Displacement
- C) Acceleration**
- D) Momentum

12. What is the main component of the Earth's atmosphere by volume?

- A) Oxygen
- B) Carbon dioxide
- C) Nitrogen**
- D) Argon

13. Which color of visible light has the highest frequency?

- A) Red
- B) Green
- C) Yellow
- D) Violet**

14. What force opposes the motion of two surfaces in contact?

- A) Gravity
- B) Tension
- C) Friction**
- D) Inertia

15. Which particle is located in the nucleus of an atom and has no charge?

- A) Proton
- B) Electron
- C) Neutron**
- D) Quark

16. What is the SI unit of power?

- A) Joule
- B) Watt**
- C) Newton
- D) Pascal

17. Which scientist is credited with the discovery of the law of universal gravitation?

- A) Albert Einstein
- B) Nikola Tesla
- C) Isaac Newton**
- D) Galileo Galilei

18. What is the term for a substance that cannot be broken down into simpler substances by chemical means?

- A) Compound
- B) Mixture
- C) Element**
- D) Molecule

19. Which of these is a noble gas?

- A) Oxygen
- B) Neon**
- C) Nitrogen
- D) Chlorine

20. What is the measurement of the total kinetic energy of particles in an object?

A) Temperature

B) Heat

C) Density

D) Pressure

21. Which device is used to measure electric current?

A) Voltmeter

B) Ammeter

C) Ohmmeter

D) Galvanometer

22. What is the most abundant metal in the Earth's crust?

A) Iron

B) Aluminum

C) Copper

D) Gold

23. Which principle explains why an object floats or sinks in a fluid?

A) Bernoulli's Principle

B) Archimedes' Principle

C) Pascal's Law

D) Boyle's Law

24. What is the process where atomic nuclei combine to form a heavier nucleus?

A) Nuclear fission

B) Nuclear fusion

C) Radioactive decay

D) Chemical synthesis

25. Which property of a wave is measured in Hertz?

A) Amplitude

B) Wavelength

C) Frequency

D) Velocity