1. What is the most basic definition of matter?

A. Anything that has mass and occupies space
B. A form of energy that can be seen
C. Substances that only exist in gases
D. Non-physical entities like thoughts

2. Which of the following is NOT considered a fundamental particle of an atom?

A. Proton
B. Neutron
C. Photon
D. Electron

3. What determines the properties of a substance formed by an atom?

A. The color of the atom
B. The arrangement of protons, neutrons, and electrons
C. The temperature outside the atom
D. The size of the atom

4. In which state of matter are particles closely packed but can move around each other?

A. Solid
B. Liquid
C. Gas
D. Plasma

5. Which state of matter has a fixed shape and volume?

A. Liquid
B. Gas
C. Solid
D. Plasma

6. What is the state of matter that occurs at extremely high temperatures?

A. Solid
B. Liquid
C. Gas
D. Plasma

7. Which of the following is a physical property of matter?

A. Reactivity with acids
B. Boiling point
C. Combustibility
D. Ability to rust

8. What is the state of matter that occurs at temperatures near absolute zero?

A. Solid
B. Liquid
C. Gas
D. Bose-Einstein condensate

9. Which of these is an example of a liquid?

A. Rock
B. Air
C. Water
D. Ice

10. What type of property describes how matter interacts with other substances?

A. Physical property
B. Chemical property
C. Thermal property
D. Optical property

11. What is matter defined as at its most basic level?

A. Anything that has mass and occupies space
B. A form of energy that cannot be seen
C. Only celestial bodies like stars and planets
D. Substances that exist solely in liquid form

12. Which of the following is NOT a fundamental particle that makes up an atom?

A. Proton
B. Neutron
C. Photon
D. Electron

13. In which state of matter are particles closely packed but can move around each other?

A. Solid
B. Liquid
C. Gas
D. Plasma

14. What determines the properties of a substance formed by atoms?

A. The arrangement of protons, neutrons, and electrons
B. The color of the atoms
C. The size of the atoms
D. The temperature of the environment

15. Which of the following is an example of a solid?

A. Air
B. Water
C. Ice
D. Oxygen

16. What allows gases to expand and fill their container?

A. Strong forces between particles
B. Particles moving freely with weak forces
C. Particles vibrating in place
D. Particles arranged in a fixed pattern

17. Which exotic state of matter occurs at extremely high temperatures?

A. Bose-Einstein condensate
B. Plasma
C. Superfluid
D. Quark-gluon plasma

18. Which of the following is a physical property of matter?

A. Flammability
B. Density
C. Reactivity
D. Acidity

19. What is the boiling point of water at standard atmospheric pressure?

A. -100°C
B. 0°C
C. 100°C
D. 200°C

20. Which state of matter is characterized by particles that spread out and move freely?

A. Solid
B. Liquid
C. Gas
D. Plasma

21. What is matter primarily defined as?

A. Anything that has mass and occupies space
B. A form of energy
C. The substance of living things only
D. A type of wave

22. Which of the following is NOT one of the fundamental particles that make up an atom?

A. Proton
B. Neutron
C. Photon
D. Electron

23. What determines the properties of a substance formed by atoms?

A. The arrangement of protons, neutrons, and electrons
B. The color of the atoms
C. The temperature of the atoms
D. The size of the atoms

24. In solids, how are the particles arranged?

A. Closely packed and vibrate in place
B. Far apart and move randomly
C. In a fixed grid but can slide past each other
D. Only found in crystalline structures

25. Which state of matter allows particles to move freely and fill the container's space?

A. Solid
B. Liquid
C. Gas
D. Plasma

26. What is the freezing point of water at standard atmospheric pressure?

A. 0°C
B. -10°C
C. 100°C
D. 200°C

27. Which of the following is an example of a liquid?

A. Air
B. Mercury
C. Rock
D. Ice

28. What is plasma primarily associated with?

A. Extremely high temperatures
B. Near absolute zero temperatures
C. Only found in stars
D. A state of matter with no particles

29. Which of the following is a chemical property of matter?

A. Density
B. Color
C. Freezing point
D. Reactivity with other substances

30. What is a Bose-Einstein condensate?

A. A state of matter occurring at extremely high temperatures
B. A state of matter occurring at temperatures near absolute zero
C. A type of liquid with no boiling point
D. A solid with no fixed shape

31. What is the most basic definition of matter?

A. Anything that has mass and occupies space
B. Energy that can be seen or touched
C. A form of light or radiation
D. Only celestial bodies like stars and planets

32. Which of the following is NOT considered a fundamental particle of an atom?

A. Proton
B. Neutron
C. Photon
D. Electron

33. What determines the properties of a substance made of atoms?

A. The arrangement of protons, neutrons, and electrons within the atom
B. The color of the atom
C. The temperature of the atom
D. The size of the atom

34. In which state of matter are particles closely packed and vibrate in place?

A. Solid
B. Liquid
C. Gas
D. Plasma

35. What is a characteristic of liquids that distinguishes them from solids?

A. They flow and take the shape of their container
B. They have a fixed shape and volume
C. They expand to fill any space
D. They are only found in extreme temperatures

36. Which state of matter allows particles to move freely and spread out?

A. Solid
B. Liquid
C. Gas
D. Bose-Einstein condensate

37. What is plasma?

A. A state of matter that occurs at extremely high temperatures
B. A type of chemical reaction
C. A form of energy that does not occupy space
D. A liquid that cannot be frozen

38. Which of the following is a physical property of matter?

A. Density
B. Flammability
C. Reactivity
D. Acidity

39. What is an example of a chemical property of matter?

A. Freezing point
B. Color
C. Ability to rust
D. Volume

40. At what temperature does Bose-Einstein condensate occur?

A. Extremely high temperatures
B. Near absolute zero
C. Standard room temperature
D. Only in vacuum conditions

41. What is matter defined as?

A. Anything that has mass and occupies space
B. A form of energy that cannot be seen
C. The substance that makes up only celestial bodies
D. A theoretical concept with no physical existence

42. Which of the following is NOT a fundamental particle that makes up atoms?

A. Protons
B. Neutrons
C. Photons
D. Electrons

43. What determines the properties of a substance formed by atoms?

A. The arrangement of protons, neutrons, and electrons
B. The temperature of the environment
C. The color of the substance
D. The size of the container holding the substance

44. In solids, how are the particles arranged?

A. Closely packed and vibrate in place
B. Spread out and move freely
C. Only found in random motion
D. Floating independently without interaction

45. Which state of matter allows particles to flow and take the shape of their container?

A. Solid
B. Liquid
C. Gas
D. Plasma

46. What is the primary difference between liquids and gases?

A. Liquids have a fixed volume while gases expand to fill their container
B. Gases are denser than liquids
C. Liquids have particles that move faster than gases
D. Gases have a fixed shape while liquids do not

47. Which exotic state of matter occurs at extremely high temperatures?

A. Plasma
B. Bose-Einstein condensate
C. Superfluid
D. Neutron star matter

48. What is an example of a physical property of matter?

A. Freezing point
B. Reactivity with acid
C. Ability to rust
D. Flammability

49. Which of the following is a chemical property of matter?

A. Density
B. Color
C. Ability to burn
D. Melting point

50. Which state of matter is characterized by particles that move freely and are spread out?

A. Solid
B. Liquid
C. Gas
D. Plasma