

Basic Chemistry Concepts



Matter and Its Nature - Multiple Choice Questions (MCQs)

- 1. Which of the following is the best definition of matter?**
 - a) Anything that can be seen and touched
 - b) Anything that has mass and occupies space
 - c) Anything that has energy
 - d) Anything that is in liquid form
- 2. Which state of matter has a definite shape and a definite volume?**
 - a) Solid
 - b) Liquid
 - c) Gas
 - d) Plasma
- 3. Which state of matter has particles that are closely packed but can move past each other?**
 - a) Solid
 - b) Liquid
 - c) Gas
 - d) Plasma
- 4. Which of the following is a property of gases?**
 - a) Definite shape and volume
 - b) Definite volume but no definite shape
 - c) No definite shape or volume
 - d) None of the above
- 5. Which property of matter is measured in kilograms?**
 - a) Volume
 - b) Density
 - c) Mass
 - d) Weight
- 6. Which of the following is a pure substance?**
 - a) Saltwater
 - b) Air
 - c) Gold
 - d) Granite
- 7. Which of the following is an example of a homogeneous mixture?**
 - a) Sand and water
 - b) Oil and water

- c) Salt dissolved in water
 - d) Fruit salad
8. **What is the main characteristic of a heterogeneous mixture?**
- a) It has a uniform composition throughout
 - b) It has different compositions in different parts
 - c) It is composed of a single element
 - d) It has no fixed composition
9. **Which state of matter has particles that are far apart and move freely?**
- a) Solid
 - b) Liquid
 - c) Gas
 - d) Plasma
10. **Which of the following is an intensive property of matter?**
- a) Mass
 - b) Volume
 - c) Density
 - d) Weight
11. **Which state of matter can be easily compressed?**
- a) Solid
 - b) Liquid
 - c) Gas
 - d) None of the above
12. **Which of the following is not a physical property of matter?**
- a) Color
 - b) Density
 - c) Reactivity with acid
 - d) Melting point
13. **Which of the following best describes a solid's particles?**
- a) Randomly arranged and moving fast
 - b) Closely packed and vibrating in place
 - c) Far apart and moving freely
 - d) None of the above
14. **Which of the following is a chemical property of matter?**
- a) Boiling point
 - b) Melting point
 - c) Density
 - d) Flammability
15. **Which of the following is an example of a physical change?**
- a) Rusting of iron
 - b) Burning of wood

- c) Melting of ice
- d) Baking a cake

Answer Key

1. b) Anything that has mass and occupies space
2. a) Solid
3. b) Liquid
4. c) No definite shape or volume
5. c) Mass
6. c) Gold
7. c) Salt dissolved in water
8. b) It has different compositions in different parts
9. c) Gas
10. c) Density
11. c) Gas
12. c) Reactivity with acid
13. b) Closely packed and vibrating in place
14. d) Flammability
15. c) Melting of ice