

Class: 6

Subject: chemistry

Topic: Pure substances and mixtures

No. of Questions: 20

Duration: 60 Min

Maximum Marks: 60

1. A Solid has
 - A. Definite volume and no definite shape
 - B. No definite volume no definite shape
 - C. Definite shape and volume
 - D. Definite shape but no definite volume

Sol: C

Explanation: **Solid** is one of the four fundamental states of matter (the others being liquid, gas, and plasma). It is characterized by structural rigidity and resistance to changes of shape or volume. Unlike a liquid, a solid object does not flow to take on the shape of its container, nor does it expand to fill the entire volume available to it like a gas does. The atoms in a solid are tightly bound to each other, either in a regular geometric lattice (crystalline solids, which include metals and ordinary ice) or irregularly (an amorphous solid such as common window glass).

2. A liquid has
 - A. Definite volume and no definite shape
 - B. No definite volume no definite shape
 - C. Definite shape and volume
 - D. Definite shape but no definite volume

Sol: A

Explanation: liquid has no definite shape

3. A Gas has
 - A. Definite volume and no definite shape
 - B. No definite volume no definite shape
 - C. Definite shape and volume
 - D. Definite shape but no definite volume

Sol: B

Explanation: A Gas has No definite volume no definite shape

4. Which of the following is NOT a property of particles of a matter?
- A. The particles of matter are extremely small
 - B. The particles of matter have spaces between them.
 - C. The particles of matter are in stationery state.
 - D. The particles of matter attract each other.

Sol: C

Explanation: gas particles move in the space

5. Which of the following has minimum spaces among the particles?
- A. Solids
 - B. Liquids
 - C. Gases
 - D. None of these

Sol: A

Explanation: solids have less voids among them

6. During summer, water kept in an earthen pot become cool because of the phenomenon of
- A. Diffusion
 - B. Transpiration
 - C. Osmosis
 - D. Evaporation

Sol: D

Explanation: fact

7. Rate of diffusion is the fastest in
- A. Solids
 - B. Liquids
 - C. Gases
 - D. None of these

Sol: C

Explanation: gases have weak intermolecular forces

8. Thermal conduction takes places in
- A. Solids only
 - B. Liquids only
 - C. Gases only
 - D. Solids, liquids and gases.

Sol: D

Explanation: fact

9. Evaporation always causes
- A. Thermal expansion
 - B. Liquefaction
 - C. Cooling down
 - D. All the these

Sol: C

Explanation: cooling of body takes place after evaporation

10. A change of state directly from solid to gas without changing into liquid state (or vice versa) is called
- A. Evalopartion
 - B. Sublimation
 - C. Diffusion
 - D. Condensation

Sol: B

Explanation: fact

11. The rate of evaporation decreases with
- A. Increase in humidity
 - B. Increase of temperature
 - C. Increase in wind speed
 - D. Increase of surface area

Sol: A

Explanation: fact

12. Which one of the following may be termed as a pure substance –

- A. Sodium chloride
- B. Soft drink
- C. Aerosol
- D. Soil

Sol: A

Explanation: NaCl has fixed ratio of constituents

13. Which of the following is a compound –

- A. CO
- B. Solution
- C. Marble
- D. Stainless steel

Sol: A

Explanation: fact

14. A substance in which all atoms are alike is called an –

- A. Compound
- B. Mixture
- C. Element
- D. None of these

Sol: C

Explanation: elements consists of same type of atoms

15. Select a colloidal solution out of the following:

- A. Gold ornaments
- B. Sand grains
- C. Lime water
- D. Paint

Sol: D

Explanation: paint is colloid.

16. Identify solution among the following mixtures

- A. Gun powder
- B. Aerated water
- C. Soil
- D. Blood

Sol: B

Explanation: fact

17. The size of particles in a solution is

- A. Smaller than 10^{-7} cm
- B. Bigger than 10^{-5} cm
- C. Between 10^{-5} and 10^{-8} cm
- D. Less than 10^{-5} cm

Sol: A

Explanation: fact

18. Common salt is obtained from sea water by

- A. Evaporation
- B. Sublimation
- C. Filtration
- D. Fractional distillation

Sol: A

Explanation:

19. Solution of soap in water is a

- A. True solution
- B. Colloidal solution
- C. Suspension
- D. None of the above

B

Explanation: fact

20. Gases are separated from each other by

- A. Fractional evaporation
- B. Fractional distillation
- C. Fractional crystallization
- D. Fractional sublimation

Sol: B

Explanation: fact

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