

1. What is true about homogeneous mixture?

- (a) Homogeneous mixture is the mixture of two or more than two components.
- (b) In homogeneous mixture the composition and properties are uniform throughout the mixture
- (c) both (a) and (b) are true
- (d) none of the above

Ans: (c)

Solution: In the homogeneous mixture two or more than two components have same composition and properties throughout the mixture

2. Which of the following properties does not describe a compound?

- (a) It is composed of two or more elements
- (b) It is a pure substance.
- (c) It cannot be separated into constituents by physical means
- (d) It is mixed in any proportion by mass

Ans: (d)

Solution: A compound is composed of two or more elements with a fixed proportion by mass. It is pure substance and cannot be separated into constituents by physical means.

3. In the tincture of iodine, find the solute and solvent?

- (a) alcohol is the solute and iodine is the solvent
- (b) iodine is the solute and alcohol is the solvent
- (c) any component can be considered as solute or solvent
- (d) tincture of iodine is not a solution

Ans: (b)

Solution: A solution of iodine in alcohol known as 'tincture of iodine' here iodine is the solute and alcohol is the solvent

4. Which of the following is not a homogeneous mixture?

- (a) Air (b) Tincture of iodine
- (c) Sugar solution (d) milk

Ans: (d)

Solution: Milk is a heterogeneous mixture. It is a colloidal solution of water and fat.

5. What is the statement?

"10 percent glucose in water by mass" signifies.

- (a) 10 gram of glucose dissolved in 100 gram of water.
- (b) 10 gram of glucose dissolved in 90 gram of water.
- (c) 20 gram of glucose dissolved in 200 gram of water.
- (d) 20 gram of glucose dissolved in 90 gram of water.

Ans: (b)

Solution: "10 percent glucose in water by mass" signifies that 10 gram of glucose dissolved in 90 gram of water.

6. Sol and gel are examples of _____

- (a) Solid-solid colloids
- (b) Sol is a solid-liquid colloid and gel is liquid-solid colloid
- (c) Sol is solid- solid colloid and gel is solid-liquid colloid
- (d) Sol is a liquid-solid colloid and gel is a solid-liquid colloid

Ans: (b)

Solution: Sol is a solid-liquid colloid and gel is liquid-solid colloid.

7. Solid solution in which the solute is gas _____

- (a) Copper dissolved in gold
- (b) Camphor in nitrogen gas
- (c) Solution of hydrogen in palladium
- (d) All of the above

Ans: (c)

Solution: Solution of hydrogen in palladium, here solute is hydrogen (gas) and the solvent is palladium.

8. An example of liquid metal and liquid non-metal is

- (a) Gallium, mercury
- (b) Mercury, chlorine
- (c) Mercury, bromine
- (d) Bromine, sulphur

Ans: (c)

Solution: An example of liquid metal and liquid non-metal is Mercury and Bromine respectively.

9. Which method is used to separate cream from milk?

- (a) Centrifugation (b) Adsorption
- (c) Distillation (d) Crystallization

Ans: (a)

Solution: By the process of centrifugation cream is separated from the milk.

10. Which of the statements is incorrect about the physical change?

- (a) There is no gain or loss of energy.
- (b) It is permanent and Irreversible
- (c) Composition of the substance remains the same
- (d) No new substance is formed.

Ans: (b)

Solution: It is permanent and Irreversible is the incorrect statement about physical change.