

# NEW STANDARD ACADEMY

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CLASS 9 (Chemistry) DPP (Academy)14-05-2024

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1. Which of the following statements are true?

- I) On heating the kinetic energy of particles in solids does not change because they have a fixed position .
- II) Sublimation is the change of gaseous state directly to solid state without going through liquid state and vice versa.
- III) The movement of particle from a area of higher concentration to lower concentration is called diffusion
- IV) The rate of evaporation is not affected by increasing the temperature.
- a) I,II andIII                                  b) II andIII
- c) II ,III and IV                                d) II and III

2. Identify the false statement among the following:

- a) Compound is homo generous in nature
- b) In compound constituents do not retain their properties
- c) The constituents of a mixture can be separated by physical method
- d) During formation of mixtures there is a change in the molecular composition

3. **Assertion(A)** : Dogs stretch out their tongues in summer.

**Reason (R)**: Evaporation leads to cooling.

- a) Both A and R are true and R is the correct explanation for A
- b) Both A and R are true and R is not the correct explanation for A
- c) A is true and R is false
- d) A is false and R is true

4. **Assertion(A)**: Rate of evaporation is less in rainy season .

**Reason(R)** : Rate of evaporation is directly proportional to humidity.

- a) Both A and R are true and R is the correct explanation for A
- b) Both A and R are true and R is not the correct explanation for A

c) A is true and R is false

d) A is false and R is true

5. **ASsertion (A)**: Baking soda ( $\text{NaHCO}_3$ ) is a compound.

**Reason (R)**: Properties of  $\text{NaHCO}_3$  are absolutely different from sodium carbon hydrogen and oxgen.

- a) Both A and R are true and R is the correct explanation for A
- b) Both A and R are true and R is not the correct explanation for A
- c) A is true and R is false
- d) A is false and R is true

6. **ASsertion (A)**: Carbonated drinks produce a hiss sound when opend.

**Reason (R)**: Carbonnted drinks are prepared by the diffusion of gas in water and when opend the gases come out of the pressurized bottles causing a hissing sound.

- a) Both A and R are true and R is the correct explanation for A
- b) Both A and R are true and R is not the correct explanation for A
- c) A is true and R is false
- d) A is false and R is true

7. **ASsertion (A)**: The temperature remains constant during change of state.

**Reason (R)**: Heat is used to Overcome the forces of attraction.

- a) Both A and R are true and R is the correct explanation for A
- b) Both A and R are true and R is not the correct explanation for A
- c) A is true and R is false
- d) A is false and R is true

8. **Column-I**

**Column-II**

1. **Evaporation**

**a) Purification of drinking water which**

**contains suspended matter**

2. **Filtration**

**b) Earthen pots**

3. Sublimation

c) Odonil used in washroom

a) 1)-a,2)-c,3)b

b) 1)-c, 2)-a,3)-b

c) 1)-c,2)-b,3) –a

d) 1)-b, 2)-a,3) –c

9. **9. Column-I**

- 1) Dry ice
  - 2) LPG
  - 3) Marsh Gas
  - 4) Super cooled liquid
- a) 1)-c,2)-b,3)-d 4)- a
  - b) 1)-d, 2)-c, 3)- b,4)-a
  - c) 1)-b, 2)-a ,3)-c,4)-d
  - d) 1)-b, 2)-c, 3)-d,4)-a

**Column-II**

- a) Domestic gas
- b) Solid carbon di oxide
- c) Methane
- d) Water

10. **Column-I**

- 1) Diffusion
  - 2) Evaporroration
  - 3) Evaporation
  - 4) Intensive
- a) 1-c,2-b,3-d,4-a
  - b) 1-b,2-a,3-d,4-c
  - c) 1-b,2-a,3-c,4-d
  - d) 1-b,2-c,3-d,4-a

**Column-II**

- a) Sublime
- b) the free mixing of molecules
- c) Independent
- d) Liquid in to vapours

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CLASS 10 (Chemistry) DPP (Academy)14-05-2024

- While performing the activity if lead nitrate is not available which of the following can be used in place of lead nitrate?
  - Lead sulphate
  - Lead acetate
  - Ammonium nitrate
  - Potassium sulphate
- Which of the following statements is true regarding precipitates?
  - Product formation after saturation point
  - Product formation before saturation point
  - Precipitation does not relate to saturation point of a solution
  - Product with higher concentration in a reaction is precipitate.
- Which of the following is a double displacement reaction?
  - $2KI + Cl_2 \longrightarrow 2KCl + I_2$
  - $Al + Fe_2O_3 \longrightarrow Al_2O_3 + 2Fe$
  - $BaCl_2 + H_2SO_4 \longrightarrow BaSO_4 + 2HCl$
  - $Mg + CuSO_4 \longrightarrow MgSO_4 + Cu$
- $CH_4 + Cl_2 \longrightarrow CH_3Cl + HCl$  reaction is an example of:
  - Synthetic
  - Analytical
  - Displacement
  - Neutralisation
- A brown and bright element "x" when heated in presence of air turns into black substance "y". If hydrogen gas is passed over this heating material again "x" is obtained. "x" and "y" are:
  - Cu and CuO
  - S and SO<sub>2</sub>
  - C and CO<sub>2</sub>
  - Na and NaH
- Displacement reaction is:
  - $CaO(s) + H_2O(l) \longrightarrow Ca(OH)_2(aq)$

- $Pb(s) + CuCl_2 \longrightarrow PbCl_2(aq) + Cu(s)$
- $MnO_2(s) + 4HCl(l) \longrightarrow MnCl_2(s) + 2H_2O + Cl_2(g)$
- $C_6H_{12}O_6 + 6O_2 \longrightarrow 6CO_2 + 6H_2O$

- The chemical reaction  $HNO_3 + KOH \longrightarrow KNO_3 + H_2O$  is an example of:
  - Neutralization
  - Double Displacement
  - Neutralization and double displacement
  - Combination
- Magnesium ribbon is rubbed with sand paper before making it to burn. The reason of rubbing the ribbon is to:
  - Remove moisture condensed over the surface of ribbon
  - Generate heat due to exothermic reaction
  - Remove magnesium oxide formed over the surface of magnesium
  - Mix silicon from sand paper (Silicon dioxide) with magnesium for lowering ignition temperature of the ribbon
- The reaction that differs from the rest of the reactions given is:
  - Formation of calcium oxide from limestone
  - Formation of aluminium from aluminium oxide. Carbonate
  - Formation of sodium carbonate from sodium hydrogen carbonate
  - Formation of mercury from mercuric oxide.
- When lead nitrate is heated a brown gas is evolved. The gas is \_\_\_\_\_.
  - Di oxygen
  - Nitrogen Dioxide
  - Nitrous oxide
  - Dinitrogen.