

# Chapter 1 - Matter

## A. Objective Questions

### 1. Write true or false for each statement

(a) The temperature of a substance remains unaffected during its change of state.

**Solution:** True.

(b) Ice melts at  $100^{\circ}\text{C}$ .

**Solution:** False.

(c) Water at  $100^{\circ}\text{C}$  has more heat than the steam at  $100^{\circ}\text{C}$ .

**Solution:** False.

(d) Evaporation of a liquid causes cooling.

**Solution:** True.

(e) Water evaporates only at  $100^{\circ}\text{C}$ .

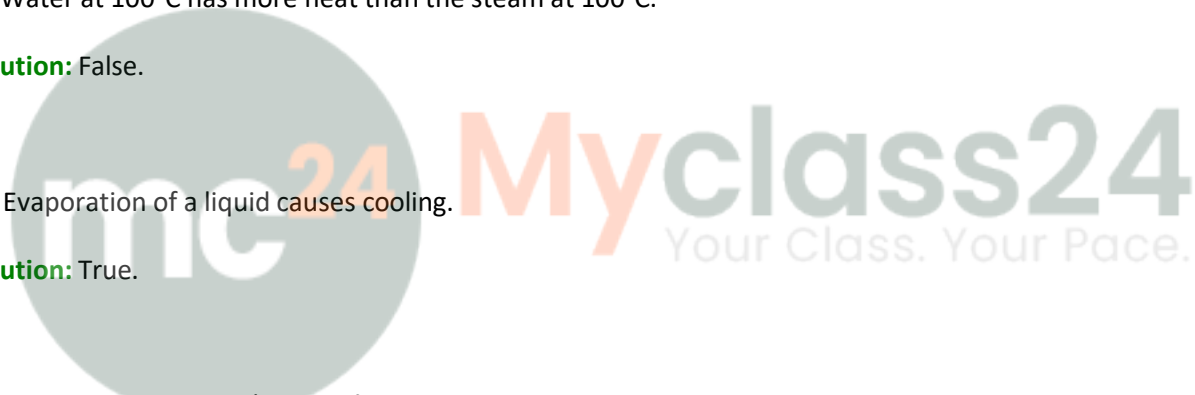
**Solution:** False.

(f) Boiling takes place at all temperatures.

**Solution:** False.

(g) Evaporation takes place over the entire mass of the liquid.

**Solution:** False.



(h) The process of a gas converting directly into gas is called vaporisation.

**Solution:** False.

(i) At high altitudes, water boils above  $100^{\circ}\text{C}$ .

**Solution:** False.

(j) The melting point of ice is  $0^{\circ}\text{C}$ .

**Solution:** True.

## 2. Fill in the blanks

(a) Evaporation takes place at all temperature.

(b) Freezing process is just the reverse of melting.

(c) Sublimation is a process that involves the direct conversion of a solid into its vapour on heating.

(d) The temperature at which a solid convert into a liquid is called it's melting point.

(e) The smallest unit of matter that exists freely in nature is called molecule.

(f) Molecules of a substance are always in a state of motion, and so they possess kinetic energy.

(g) Intermolecular space is maximum in gases less in liquids and the least in solids.

(h) The intermolecular force of attraction is maximum in solids, less in liquids and the least in gases.

## 3. Match the following:

### Column A

(a) Molecules

(b)  $100^{\circ}\text{C}$

(c)  $0^{\circ}\text{C}$

(d) At all temperatures

### Column B

(i) water boils

(ii) evaporation

(iii) changes from solid to gas

(iv) matter

(e) Camphor (v) water freezes

**Solution:**

**Column A**

**Column B**

(a) Molecules

(iv) matter

(b) 100°C

(i) water boils

(c) 0°C

(v) water freezes

(d) At all temperatures (ii) evaporation

(e) Camphor (iii) changes from solid to gas

**4. Select the correct alternative**

(a) The inter-molecular force is maximum in

1. Solids

2. Gases

3. Liquids

4. none of the above

**Solution:** 1. Solids

(b) The inter-molecular space is maximum in

1. liquids

2. solids

3. gases

4. none of the above

**Solution:** 3. Gases

(c) The molecules can move freely anywhere in



- 
1. gases
  2. liquids
  3. solids
  4. none of the above

**Solution:** 1. Gases

(d) The molecules move only within the boundary of

1. liquids
2. gases
3. solids
4. none of the above

**Solution:** 1. Liquids

(e) The temperature at which a liquid gets converted into its vapour state is called its our Pace.

1. melting point
2. boiling point
3. dewpoint
4. Freezing point.

**Solution:** 2. Boiling point

(f) Rapid conversion of water into steam is an example of

1. evaporation
2. freezing
3. melting
4. vapourization

---

**Solution:** 4. Vapourization

(g) Evaporation takes place from the

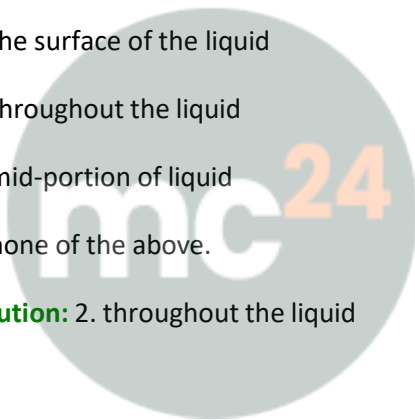
1. surface of liquid
2. throughout the liquid
3. mid-portion of the liquid
- 4 bottom of liquid.

**Solution:** 1. surface of liquid

(h) Boiling takes place from the

1. the surface of the liquid
2. throughout the liquid
3. mid-portion of liquid
4. none of the above.

**Solution:** 2. throughout the liquid



**Myclass24**  
Your Class. Your Pace.