

Chapter 1
Matter

Objective Questions:

1. Write true or false for each statement:

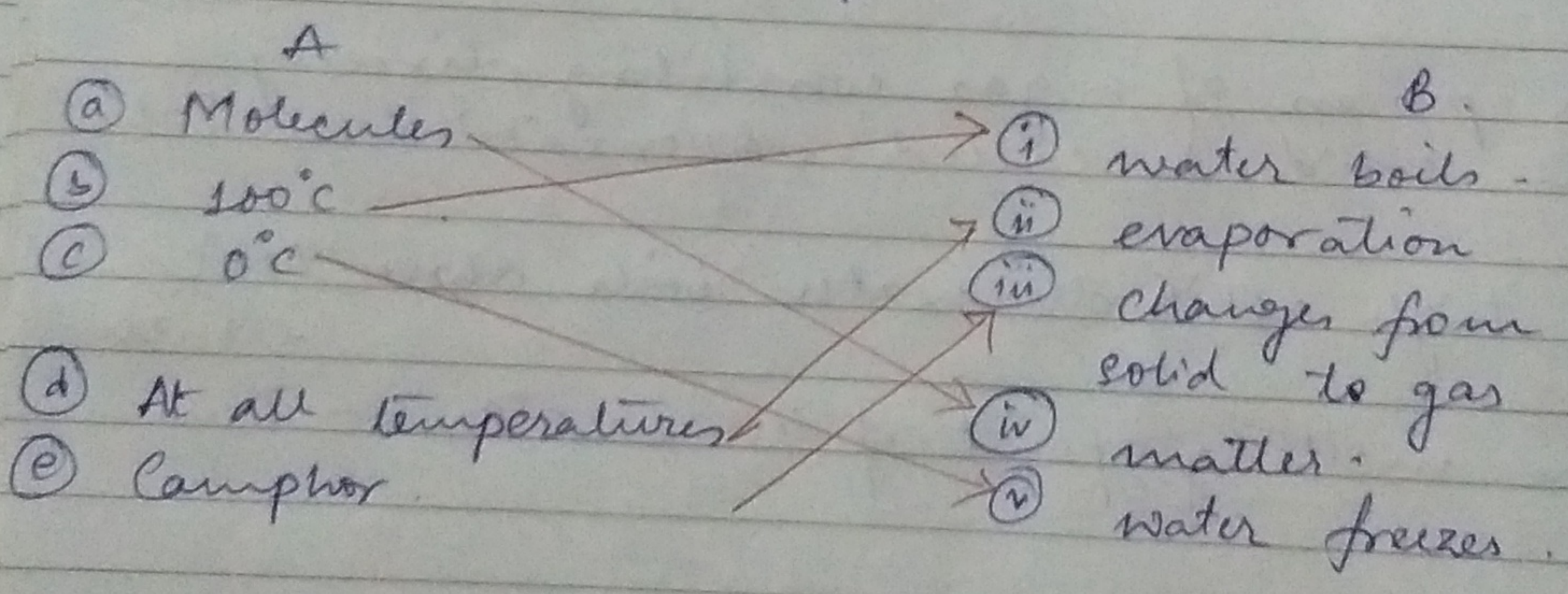
- (a) The temperature of a substance remains unaffected during its change of state. True
- (b) Ice melts at 100°C . - False
- (c) Water at 100°C has more heat than steam at 100°C . - False
- (d) Evaporation of a liquid causes cooling. - True
- (e) Water evaporates only at 100°C . - False
- (f) Boiling takes place at all temperatures. - False
- (g) Evaporation takes place over the entire mass of the liquid. - False
- (h) The process of a gas converting directly into solid is called vaporization. - False
- (i) At high altitudes water boils above 100°C . - False
- (j) The melting point of ice is 0°C . - True

2. Fill in the blanks:

- (a) Evaporation takes place at all temperatures.
- (b) freezing process is just the reverse of melting.
- (c) Sublimation is a process that involves direct conversion of a solid into its vapour on heating.

- 8. (d) The temperature at which a solid converts into a liquid is called melting point.
- 8. (e) The smallest unit of matter that exists freely in nature is called molecule.
- 8.6 (f) Molecules of a substance are always in a state of motion and so they possess kinetic energy.
- 8.7 (g) Inter molecular space is maximum in gases less in liquids and the least in solids.
- 8.8 (h) Inter molecular force of attraction is maximum in solids less in liquids and the least in gases.

3. Match the following :



4. Select the correct alternative :

- (a) The intermolecular force is maximum in:
 - ✓ (i) Solids
 - (ii) gases.
 - (iii) liquids
 - (iv) none of the above.

(b) The intermolecular space is maximum in :

- (i) liquids
- (ii) solids
- ✓ (iii) gases
- (iv) none of the above.

(c) The molecules can move freely anywhere in :

- ✓ (i) gases
- (ii) liquids
- (iii) solids
- (iv) none of the above.

(d) The molecules move only within the boundary in :

- ✓ (i) liquids
- (ii) gases
- (iii) solids
- (iv) none of the above.

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

- ✓ (i) melting point
- (ii) boiling point
- (iii) dew point
- (iv) freezing point

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

- (i) evaporation
- (ii) freezing
- (iii) melting
- ✓ (iv) vaporization

g. Evaporation takes place from the

- (i) surface of liquid.
- (ii) throughout the liquid.
- (iii) mid point of the liquid.
- (iv) bottom of liquid.

h. Boiling takes place from:

- (i) the surface of the liquid.
- (ii) throughout the liquid.
- (iii) mid portion of liquid.
- (iv) none of the above.

Work Sheet

1. Define the term matter. What is it composed of?
2. State three properties of molecules of matter
3. What do you mean by inter molecular space?
How do they vary in different states of matter
4. What is meant by inter molecular forces of attraction? How do they vary in solids, liquids and gases?
5. Which of the following are correct?
 - (a) Solids have definite shape and definite volume.
 - (b) Liquids have definite volume but no definite shape.
 - (c) Gases have definite volume but no definite shape.
 - (d) Liquids have both definite shape and definite volume.