



## CHEMISTRY

### CH 7: Particulate nature of matter

CLASS VIII

#### I. CHOOSE THE CORRECT ANSWER

- The process involving the change of state from solid to gas without passing through liquid state is called  
(a) melting (b) boiling (c) sublimation (d) fusion
- 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
- The process in which the gas is cooled and converted to liquid is called  
(a) melting (b) boiling (c) sublimation (d) condensation
- Liquids can be converted to solid by  
(a) increasing the temperature (b) decreasing the temperature  
(c) Temperature has no effect on the state of matter (d) None of these.
- Which of the following has maximum spaces among the particles?  
(a) Solids (b) Liquids (c) Gases (d) None of these
- Thermal conduction takes places in  
(a) solids only (b) liquids only (c) gases only (d) solids, liquids and gases.

#### II. Answer the following.

- The melting points of two substances P & Q are 315 K and 405 K respectively. Which one of them is harder solid ?
- Arrange the following in the increasing order of property mentioned  
Kerosene, methane gas , chalk particles, rock.
  - Kinetic energy
  - Attractive force.
  - Interparticle space.
- Select the substances which undergo sublimation:  
Naphthalene, Solid water, Oxygen, Common salt, camphor, sand, iodine.
- Give reason; Naphthalene balls disappear with time without leaving any solid.

### III. Assertion and reason questions

- i) Both A & B are true and R is the correct explanation of A
  - ii) Both A & B are true and R is not the correct explanation of A
  - iii) A is true, but R is false
  - iv) A is false, but R is true
11. Assertion: When solids are heated, their particles vibrate more vigorously and they start leaving their position.  
Reason: The temperature at which the solid changes to liquid is called boiling point.
12. Assertion: Melting point becomes high when interparticle force of attraction is low.  
Reason: The solid which is very hard will have high melting point.
13. Assertion: Boiling occurs at a fixed temperature.  
Reason: Evaporation is a surface phenomenon.
14. Assertion: Movement of particles increases with temperature.  
Reason: Kinetic energy of the particle increases with temperature.
15. Assertion: Gas can be compressed and expanded easily.  
Reason: Gas has more interparticle space.
16. Assertion: Interparticle attraction in liquid is higher than solid but lesser than gas.  
Reason: Liquids do not have a fixed shape but it takes the shape of the container.
17. Assertion: Naphthalene balls disappear with time without leaving any residue.  
Reason: Naphthalene balls change from solid to liquid state very quickly.
18. Assertion: The rate of movement of particles of liquids is much faster than that in solids.  
Reason: The inter particle force of attraction is more in solids than in liquids.