

Physics (New Book) - 9th Class Physics English Medium Chapter 8 Preparation

Q1. How does heating affect the motion of molecules of a gas

Ans 1: When a gas is heated, the velocity of the gas molecules increased due to this reason the motion of molecules of molecules increased which increases the kinetic energy internal energy and temperature of a gas molecules.

Q2.

Define convection?

Ans 1:

Transfer of heat by actual movement of molecules from hot place to a cold place is known as convection.

Q3. What is the volumetric thermal expansion

Ans 1: The volume of solid changes with the change in temperature and is called volume thermal expansion or cubic thermal expansion

Ans 2: Formula $V = V(1 + \beta \Delta T)$

Q4. Differentiate between freezing and melting point

Ans 1: Freezing point: In liquids the point of temperature which liquids starts to become solids
Freezing point is that point which liquids starts to become solids
Water starts to become ice at temperature.

Ans 2: Melting point: In solids the point of temperature which solids starts to become liquids
Melting point is that point which solid starts to become water at temperature of

Q5. Define thermal expansion

Ans 1: Thermal expansion: Expansion due to heating is called thermal expansion

Ans 2: Explanation: Most of the substances solids liquids and gases expand on heating and contract on cooling. The Kinetic energy of the molecules of an object depends on its temperature. The molecules of a solid vibrate with larger amplitude at high temperature than at low temperature.

Q6. How cooling is produced in refrigerator

Ans 1: Cooling is produced in refrigerators by evaporation of a liquefied gas. This produce cooling effect. Freon, a CFC, was used as a refrigerant gas. Bus its use has been forbidden when it was known that CFC is the cause of ozone depletion in the upper atmosphere which results increase in amount of UV rays from the Sun. The rays are harm ful to all living matter Freon gas is now replaced by Ammonia and other substances which are not harmful to the environment

Q7. What is a relationship between the coefficient of linear and bolume expansion

Ans 1: The coefficient of linear and volume expansion are related by the equation
 $B=3a$

Q8. Why temperature of lnd near water remains moderate

Ans 1: The presence of large water reservoirs such as lakes and seas keep the climate moderate due to large heat capacity of their reservoirs.

Ans 2: Example: Heat capacity of water

Q9. What is meant by freezing point

Ans 1: The temperature at which a substance changes from liquid to solid state is called its freezing point

Ans 2: Example: The freezing point of water is

Q10. What is the use of thermometer

Ans 1: Thermometer: A thermometer is a device which is used to measure the temperature of a body mercury is preferred as a thermometric substance due to following properties.
It is easily visible
It has uniform thermal expansion
It has low freezing point and ight boiling point
It has a small specific heat capacity.
