

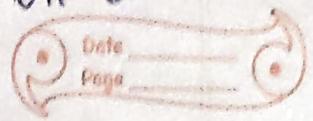
H.W  
01/10/2022

# Physics

Ch-5

## Heat

Snehaash kare  
VII 'C'



Q1) What is heat? Qa State its S.I unit.

Ans Heat is a form of energy which flows from a hot body to a cold body when they are kept in contact. S.I unit of ~~heat~~ heat is Joule.

Q2) What is meant by the term temperature.

Ans Temperature is a quantity which tells us the degree of hotness or coldness of a body - when the body is heat, the temperature rises and when the body is cooled, the temperature decreases.

Q3) State the three units of ~~temp~~ temperature.

Ans The three units of temperature are:

i) degree Celsius

ii) degree Fahrenheit

iii) Kelvin



(Q4) Name the instrument used to measure the temperature of a body.

Ans Thermometer is used to measure the temperature of a body.

(Q5) Name two scales of temperature. How are they interrelated?

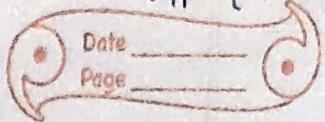
Ans There are three scales of temperature:

- i) The Celsius scale
- ii) The Fahrenheit scale
- iii) The Kelvin scale

The Celsius scale and Kelvin scale

$$\begin{aligned} \text{Ice point of Celsius scale} &= 0^\circ\text{C} \\ " " " \text{ Kelvin scale} &= 273\text{K} \end{aligned} \quad \left. \begin{array}{l} 0^\circ\text{C} = 273\text{K} \\ \hline \end{array} \right\}$$

$$\begin{aligned} \text{Steam point of Celsius scale} &= 100^\circ\text{C} \\ " " " \text{ Kelvin scale} &= 373\text{K} \end{aligned} \quad \left. \begin{array}{l} 100^\circ\text{C} = 373\text{K} \\ \hline \end{array} \right\}$$



## Celsius scale and Fahrenheit scale

$$\begin{array}{l} \text{Ice point of Celsius scale} = 0^\circ\text{C} \\ \text{,, , , } \quad \text{Fahrenheit scale} = 32^\circ\text{F} \end{array} \quad \left. \begin{array}{l} 0^\circ\text{C} = 32^\circ\text{F} \end{array} \right\}$$

$$\begin{array}{l} \text{Steam} \qquad \qquad \qquad \text{Celsius} \\ \text{Ice point of } \cancel{\text{Fahrenheit}} \text{ scale} = 100^\circ\text{C} \\ \text{,, , , } \quad \text{Fahrenheit scale} = 212^\circ\text{F} \end{array} \quad \left. \begin{array}{l} 100^\circ\text{C} = 212^\circ\text{F} \end{array} \right\}$$

Q6) How is the size of a degree on a Celsius scale?

Ans When a body is heated, it expands, and when it is cooled, it contracts. The increase in size of the body due to heating is called thermal expansion.

Ans Q7) ~~How is the~~ The interval between the ice point and steam point is divided by 100 equal parts is called degree on the Celsius scales.

Q7) How is size of a degree defined on a Fahrenheit

Ans The interval between the ice point and steam point divided into 180 equal parts is called a degree on the Fahrenheit scale.