

HW
01/10/2022

Physics
Ch-5
Heat

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VII 'C'

Date _____
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Q1) What is heat? 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 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 heated, 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

Ice point of Celsius scale = 0°C } $0^{\circ}\text{C} = 273\text{K}$
" " " Kelvin scale = 273K

Steam point of Celsius scale = 100°C } $100^{\circ}\text{C} = 373\text{K}$
" " " Kelvin scale = 373K

Celcius scale and Fahrenheit scale

Ice point of Celcius scale = 0°C
 " " " Fahrenheit scale = 32°F } $0^{\circ}\text{C} = 32^{\circ}\text{F}$

Steam
 Ice point of ~~Fahrenheit~~ Celcius scale = 100°C
 " " " Fahrenheit scale = 212°F } $100^{\circ}\text{C} = 212^{\circ}\text{F}$

Q6) How is the size of a degree on a celcius 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 Q6) ~~How is the~~ The interval between the ice point and steam point is divided by 100 equal parts is called degree on the Celcius 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.