

DATE: 15 SEP 2020

SUBJECT : SCIENCE

CHAPTER-7:

TEMPERATURE AND HEAT

TOPIC-1:

TEMPERATURE , HEAT AND THEIR UNITS

TEMPERATURE & HEAT

Temperature: The degree of hotness or coldness of an object/ substance is called temperature. Whether a body is hot or cold , it is known by its temperature.

Heat: The form of energy that transfers from high temperature region to low temperature region is called heat.

Unit of heat: The units of heat are (a) calorie and (b) Joule . The terms hot and cold are relative.

Temperature Scale/Unit of temperature: 04 units are used to measure temperature. (a) Degree Celsius(C), (b) Fahrenheit(F), (c) Kelvin(K) and Raumar (R).

Relations: $C = 5(F-32)/9 = K-273$, Where C=degree Celsius, F= Fahrenheit, K = Kelvin.

NUMERICAL: (1) Convert 50 degree Celsius to Fahrenheit.

Solution: $C = 5(F-32)/9$, $F = 9C/5 + 32$, $F = 9 \times 50/5 + 32 = 122^{\circ}\text{F}$. Thus $50^{\circ}\text{C} = 122^{\circ}\text{F}$.

NUMERICAL: (2) Convert 50°F to Degree Celsius.

Solution: $C = 5(F-32)/9 = 5(50-32)/9 = 10^{\circ}\text{C}$

TEMPERATURE & HEAT

1. What do you mean by temperature and heat?
2. Name the units used to measure heat.
3. Name the units used to measure temperature.
4. Write the relations between
 - (a) degree Celsius (C) & Fahrenheit (F)
 - (b) degree Celsius (C) & Kelvin(K)
 - (c) Kelvin(K) & Fahrenheit (F)
5. Convert 50 degree Fahrenheit to degree Celsius.
6. Temperature of hot water is 25 degree Celsius. What will be its temperature in Kelvin
7. Convert 400 K in Degree Celsius and Fahrenheit Scale.
8. If human body temperature be 98 degree Fahrenheit, find its temperature in degree Celsius.