

H.W
7.7.21

Date _____
Page 49

Q. Define Temperature. What is the SI unit of temperature?

Ans - Temperature is the measure of degree of hotness or coldness of an object.
The S.I unit of temperature is Kelvin (symbol K).

Q. What are the different scales of temperature?

Ans - The different scales of temperature are -

- Kelvin (symbol K)
- Celsius (symbol °C.)
- Fahrenheit (symbol °F)

H.W
10.7.21

Q. Define temperature. Explain the units of temperature.

Ans - Temperature is the measure of hotness or coldness of an object.

The units of temperature are -

→ Kelvin: It's the S.I unit of temperature. It is named after a ~~British~~ British physicist, Lord Kelvin.

→ Degree celsius or degree centigrade
(Symbol °C) :

It is a commonly used unit of temperature.
It was given the name after the scientist
Andreas Celsius.

→ Degree fahrenheit (symbol °F) :

It is also a commonly used unit. It was
named after the scientist G. D. Fahrenheit.

Q. What do you mean by ice point and steam point?

Aw- Ice point is the freezing point of water and steam
point is the boiling point of water.

Q. One degree celsius scale is equal to 1.8 or
 $\frac{9}{5}$ degree on fahrenheit.

Q. Differentiate between laboratory thermometer and
clinical thermometer.

Laboratory Thermometer

→ This thermometer is used
only in laboratories.

Clinical Thermometer

→ This thermometer is used
only by the doctors to
measure the temperature of
the patient's body.

Laboratory Thermometer

→ The stem has markings from -10°C to 110°C .

→ It doesn't have a kink which caused a constriction.

Clinical Thermometer.

→ It has markings from 35°C to 42°C / 95°F to 110°F

→ It has kink, known as constriction, to prevent the mercury from falling back all by itself.

TEST YOURSELF

B. Short/long Answer Question.

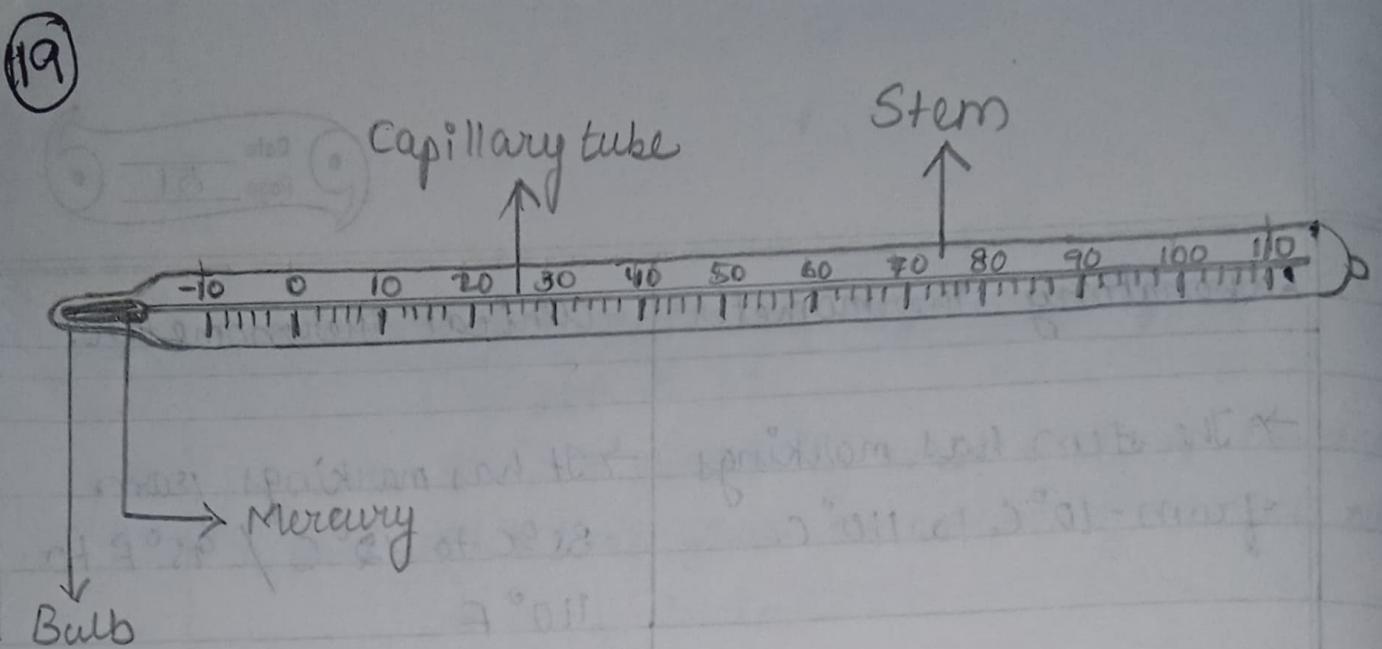
(19) Name the instrument used for measuring the temperature a person. Draw its neat labelled diagram.

Ans - The temperature is measured with a thermometer.

(20) Write the temperature of :

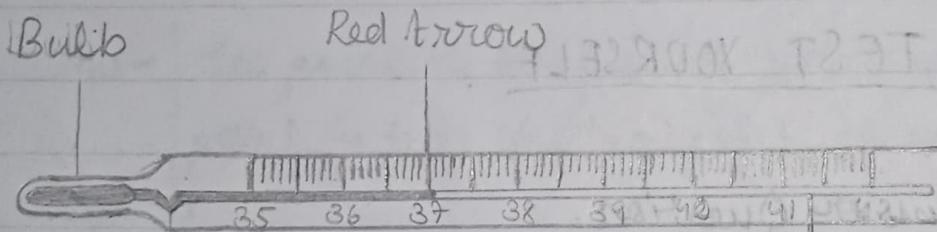
i) Melting point = 0°C / 32°F / 273 K

ii) Boiling point = 100°C / 212°F / 373 K



Laboratory Thermometer

(20) ~~is around 300 mm long~~
~~having a bulb at one end~~
~~and a narrow glass tube~~
~~filled with mercury or~~
~~alcohol which expands~~



Construction Constriction Capillary Tube

Clinical Thermometer

$$X 8^{\circ}\text{F} \backslash 37^{\circ}\text{C} \backslash 30^{\circ} = \text{true reading}$$

$$X 8^{\circ}\text{F} \backslash 37^{\circ}\text{C} \backslash 30^{\circ} = \text{true reading}$$

(21)

What is a clinical thermometer? State its special features. Draw a neat labelled diagram of a clinical thermometer showing the range of temperature marked on it.

Ans -

Doctors use a special thermometer called the clinical thermometer for measuring the temperature of the patient's body. This ~~is~~ thermometer has markings from 35°C to 42°C . It has a slight bend or kink in the stem just above the bulb, this kink is called constriction, which prevents the mercury from falling back all by itself. The temperature of a healthy person is 37°C and is marked by a red arrow.