

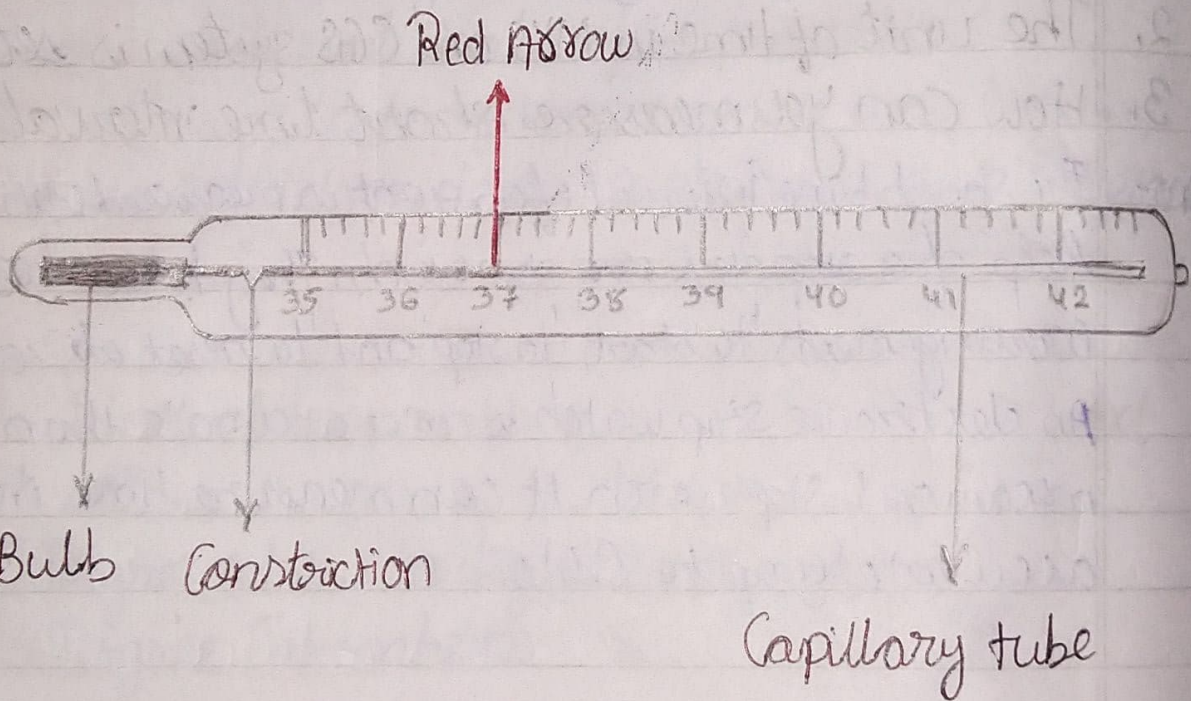
H.W
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Test Yourself

B. Short/Long Answer Questions.

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

Ans- The temperature is measured with a thermometer.



Clinical Thermometer

20. Write the temperature of i) melting ice ii) boiling water

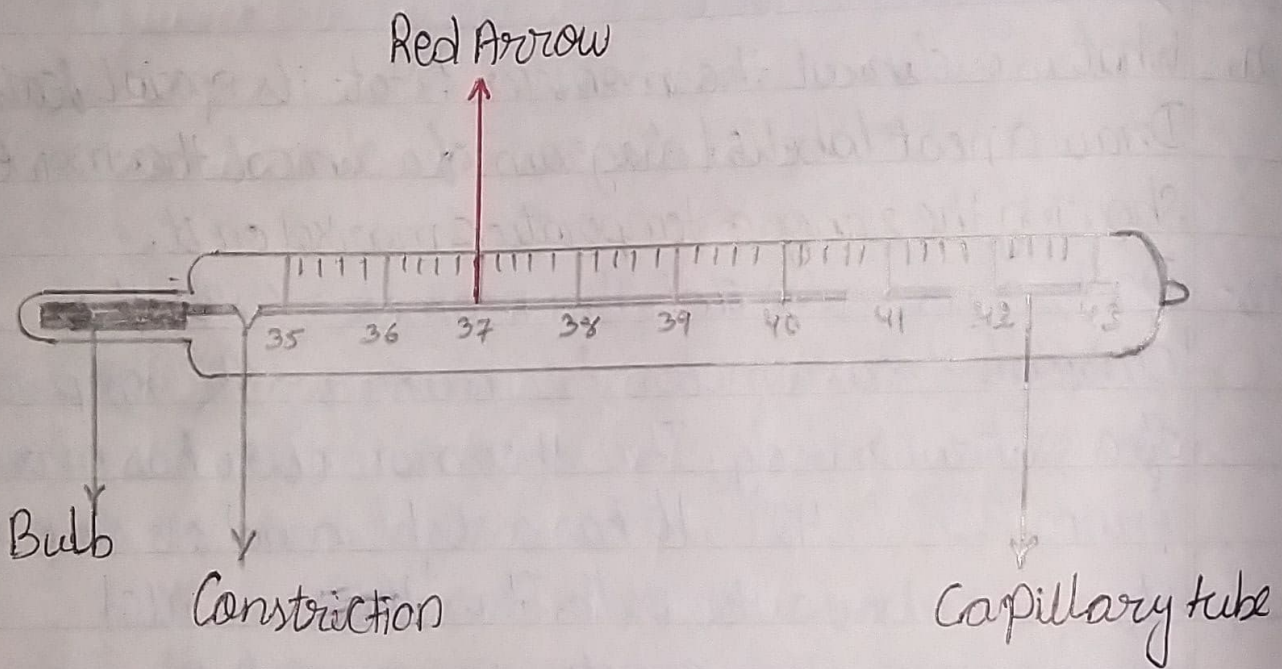
Ans - The temperature of:

i) melting ice = 0°C

ii) boiling water = 100°C

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 a patient's body. This 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. This constriction prevents the mercury from falling back all by itself. The temperature of a healthy person is 37°C . This temperature is marked by a red arrow. Clinical thermometers marked in $^{\circ}\text{F}$ are also available. They have markings from 95°F to 110°F . The red arrow indicating the temperature of a healthy person at 98.6°F .



Clinical Thermometer

1. Define temperature. Explain the units of temperature.

Ans- The temperature is the measure of degree of hotness or coldness of an object.

There are three units of temperature - Kelvin, Degree Celsius or degree centigrade and Degree Fahrenheit.

- The SI unit of temperature is Kelvin (symbol K).

- Degree Celsius or degree centigrade (symbol $^{\circ}\text{C}$) was given by the scientist Anders Celsius.

- Degree Fahrenheit (symbol $^{\circ}\text{F}$) was named after the name of the scientist G.D Fahrenheit.

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

Ans- The ice point i.e. the freezing point of water and the steam point i.e. the boiling point of water and the number of degrees in between the ice point and boiling point on the three scales are as follows:

Scale of temperature	Ice Point	Steam point	Number of degrees in between ice point and steam point
Kelvin	273 K	373 K	100
Celsius	0°C	100°C	100
Fahrenheit	32°F	212°F	180

3. One degree on Celsius scale is equal to $\frac{9}{5}$ or 1.8 on Fahrenheit scale.

4. Differentiate between laboratory thermometer and clinical thermometer.

Ans- Difference between laboratory thermometer and clinical thermometer are -

Laboratory thermometer	Clinical thermometer
It is used to measure the temperature of different objects in laboratory.	It is used to measure the body temperature.
It is marked from -10°C to 110°C .	It is marked from 35°C to 42°C or 95°F to 110°F .
There is no constriction present just above the bulb.	There is a constriction present just above the bulb.
Temperature is read while being in contact with the source.	Temperature can be read after removing it from the source.