

Hw
17/7/21

Q. Define one kilogram, the S.I. unit of mass. How is it related to i) quintal, ii) metric tonne, iii) gram?

Ans- One kilogram, the S.I. unit of mass, is defined as the weight of 1 litre of water at 4°C .

i) $1 \text{ quintal} = 100 \text{ kg}$
 $1 \text{ kg} = \frac{1}{100} \text{ quintal}$

ii) $1 \text{ metric tonne} = 1000 \text{ kg}$
 $1 \text{ kg} = \frac{1}{1000} \text{ metric tonne or } 10^{-3} \text{ metric tonne}$

iii) $1 \text{ gram} = \frac{1}{1000} \text{ kg}$
 $1 \text{ kg} = 1000 \text{ g}$

Q. Name and define the S.I. unit of time. How is it related to, i) minute, ii) hour, iii) day and iv) year.

Ans- The S.I. unit of time is second. One second is the interval between two consecutive ticks of a pendulum wall clock.

i) 1 minute = 60 s, $1s = \frac{1}{60}$ min

ii) 1 hour = $60 \times 60 = 3600$ s, $1s = \frac{1}{3600}$ h

iii) 1 day = 24×3600 s = 86,400 s, $1s = \frac{1}{86,400}$ day

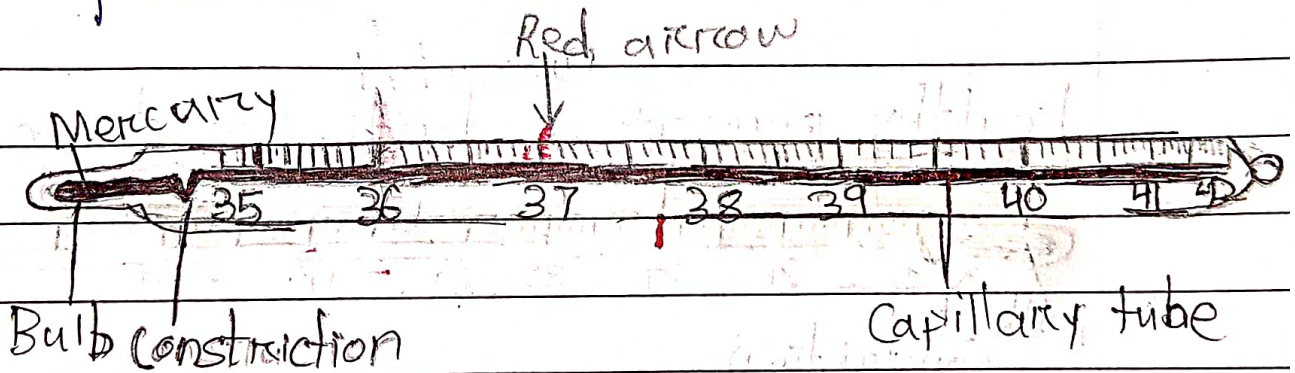
iv) 1 year = 3.15×10^7 s

Q. Name the S.I. Unit ~~of~~ and one common unit of temperature. Write their symbols also.

Ans- The S.I. unit of temperature is kelvin (symbol - k) and the ^{one} common unit of temperature is Degree Celsius (symbol - °C)

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

Ans. The instrument used to measure the temperature of a person is a clinical thermometer.



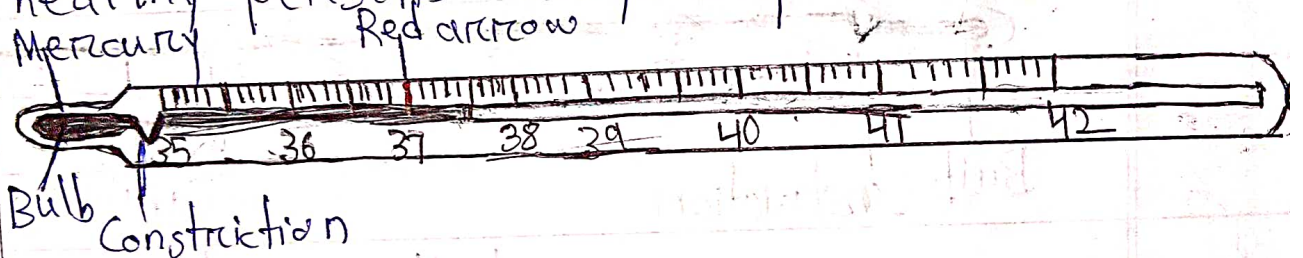
Clinical thermometer.

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

Ans. The thermometer that is used to measure the

temperature of a patient's body is called a clinical thermometer. It has markings from 35°C to 42°C . It has a kink or constriction to prevent the mercury from going down by itself. A red arrow is on the 37°C mark. A

healthy person's body temperature is 37°C .



~~Debasmita~~

Debasmita Mohanty

18-7-21