

PHYSICAL QUANTITIES AND IT'S MEASUREMENTS

PHYSICAL QUANTITY

Any quantity e that can be measured is called physical quantity.

Example length , mass, temperature, time, volume, speed etc.

• MEASUREMENT OF LENGTH:

DEFINITION: it is defined as the separation or distance between two points in space.

DEVICES:

For longer length:-

1. ruler,
2. measuring tape.

For short length:-

1. Vernier Calliper,
2. screw gauge.

UNITS:-

1. S.I unit-meter (m)
2. For long distance-kilo metre (km)
3. For short length - centimeter (cm), millimetre (mm).



• MEASUREMENT OF MASS :-

Definition:- it is defined as the quantity of matter contained in a body.

DEVICES:-

1. **Beam balance-used to to measure costly substances.**
2. **Physical balance- used in laboratories.**
3. **Grocer's balance-used in groceries shop.**
4. **Electronic balance**

UNITS:-

S.I Unit- kilogram (kg)

For small quantities- milligram (mg)

For large quantities- quintal & tonne.



MEASUREMENT OF TIME:-

DEFINITION:-. It is defined as the gaps between two events.

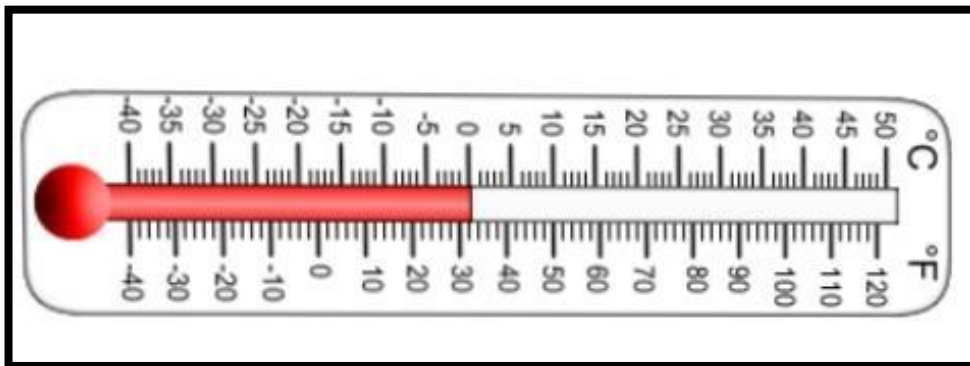
DEVICES:-

1. wall clock
2. wrist watch
3. stop clocks
4. stop watches.

UNITS:-

S.I Unit- second (s).

Other bigger units- hours, minutes, days, years, decade, century, millennium.



• MEASUREMENT OF TEMPERATURE:-

DEFINITION:- it is the measure of degree of hotness or coldness of a body.

S.I UNIT:- kelvin (K)

Other units:- degree Celsius ($^{\circ}\text{C}$)
degree fahrenheit ($^{\circ}\text{F}$).

DEVICE:- Thermometers.

TYPES:-

- laboratory thermometer (- 10°C to. 110°C).
- Clinical thermometer-.
(35°C . to 42°C).

FORMULA FOR CONVERSION OF $^{\circ}\text{C}$ to $^{\circ}\text{F}$

- $C/5 = F - 32 / 9.7$

MEASUREMENT OF AREA:-

DEFINITION:- it is the measure of surface enclosed by the boundary of a plane figure.

S.I UNIT- square metre (m^2).

Other units- square kilometre (km^2), hectare, are.

measurement

WORKSHEET -2

A. Name the units in which you need to to express the following:-

- 1) distance from Kolkata to New Delhi
- 2) Thickness of coin
- 3) Your age
- 4) amount of sugar bought
- 5) Temperature of hot tea
- 6) Time taken in 100 m race.
- 7) Time taken to have your lunch.
- 8) Duration of winter vacation.
- 9) Weighing of sack of rice
- 10) Weighing of gold ring.

Do the questions given after the chapter.

