

Class: 6

Subject: Physics

Chapter: Physical Quantities and Measurement

(Answer Key)

1.

a. Length is defined as the separation or distance between two points in space.

b. A ruler is a measuring stick marked with units for measuring along its edge.

c. Mass is therefore defined as the quantity of matter contained in a body.

d. Time is defined as the gap between two events.

e. The degree of hotness or coldness of a body is called temperature.

f. Surface area is defined as the measure of the surface of an object.

2.

a. Yardstick

b. Beam balance

c. Sundial

d. Clinical thermometer

e. Graph paper

3.

a. Meter(m), kilometer(km)

b. 12 hour

c. Celsius, Fahrenheit

d. Clinical

e. Surface, object

4.

a. False

b. True

c. True

d. True

5.

a. When the zero mark of a scale is damaged you should use any other full mark of the scale and then subtract the reading of this full mark from the reading at the other end.

b. The different types of devices used to measure length along with one use is as follows:

i. Ruler is the most common measuring instrument that is widely used by students.

ii. Yardstick is a long ruler around 3 feet long and is used for measuring cloth.

iii. Flexible tape is used for measuring longer lengths and is used in construction work.

c. An electronic balance is a device used to find accurate measurements of mass. Some precaution that should be taken while using an electronic balance are as follows:

i. Balance should be kept on a flat and stable surface.

ii. Make sure the balance reads to the correct decimal place, also known as readability.

iii. Make sure the pan is free of particles and substance, as this could affect the result.

iv. Carefully transfer substances from the stock container to the weighing vessel in small increments until desired result.

v. Never return stock chemicals to the container.

d. In olden days, the repetition of events like sunrise to sunset or duration between one full moon to another was considered to measure time. These events were known as periodic.

e. A mean solar day is the time taken by the earth to complete one rotation on its axis. To measure time, a mean solar day is divided into twenty four intervals and each interval is called an hour.

f. A temperature scale is defined by choosing two reference temperature and dividing the difference between these two temperatures into a certain number of divisions. Each division is called one degree. The two most commonly used temperature scales are Celsius ($^{\circ}\text{C}$) and Fahrenheit ($^{\circ}\text{F}$) scales.
