Science

(Chapter – 10) (Motion and Measurement of Distances)
(Class – VI)

Exercises

Question 1:
Give two examples each, of modes of transport used on land, water and air.

🍃 Answer 1:

Land transport   : Bus, train, motorbike.
Water transport   : Boat, ship, steamer.
Air Transport   : Aeroplane, Helicopter.

Question 2:
Fill in the blanks:
(i) One metre is _____ cm.
(ii) Five kilometre is _____ m.
(iii)Motion of a child on a swing is _____.
(iv)Motion of the needle of a sewing machine is _____.
(v) Motion of wheel of a bicycle is_____.

🍃 Answer 2:

(i) One metre is *100* cm.
(ii) Five kilometre is *5000* m.
(iii)Motion of a child on a swing is *periodic motion*.
(iv)Motion of the needle of a sewing machine is *periodic motion*.
(v) Motion of wheel of a bicycle is *circular motion*.

Question 3:
Why can a pace or a footstep not be used as a standard unit of length?

🍃 Answer 3:

A pace or a footstep not be used as a standard unit of length because the size of pace and footstep vary from person to person. This will lead to confusion while measuring the lengths by different persons. We should use standard units like International System of Units (SI Units).
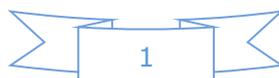
Question 4:
Arrange the following lengths in their increasing magnitude:

1 metre, 1 centimetre, 1 kilometre, 1 millimetre.

🍃 Answer 4:

1 millimetre, 1 centimetre, 1 metre, 1 kilometre.

Question 5:

The height of a person is 1.65 m. Express it into cm and mm.

Answer 5:

We know that 1 metre = 100 cm and 1 metre = 1000 mm
So, 1.65 m = 1.65 × 100 = 165 cm
and 1.65 m = 1.65 × 1000 = 1650 mm

Question 6:

The distance between Radha's home and her school is 3250 m. Express this distance into km.

Answer 6:

We know that $1 \text{ m} = \frac{1}{1000} \text{ km}$

So, $3250 \text{ m} = \frac{3250}{1000} \text{ km} = 3.25 \text{ km}$

Question 7:

While measuring the length of a knitting needle, the reading of the scale at one end is 3.0 cm and at the other end is 33.1 cm. What is the length of the needle?

Answer 7:

The length of the needle = 33.1 cm – 3.0 cm = 30.1 cm

Question 8:

Write the similarities and differences between the motion of a bicycle and a ceiling fan that has been switched on.
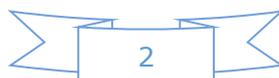
Answer 8:

Similarity   : Both show a circular motion.
Difference   : Bicycle shows a rectilinear motion whereas a ceiling fan does not.

Question 9:

Why could you not use an elastic measuring tape to measure distance? What would be some of the problems you would meet in telling someone about a distance you measured with an elastic tape?

Answer 9:

Since the tape is stretchable, its will show the same measurements for different lenths. Therefore we cannot use it as measuring tape. While measuring a distance, we need to tell someone how much tape has been stretched which is difficult to measure. It leads to incorrect measurements.

Question 10:

Give two examples of periodic motion.

Answer 10:

Rotation of Earth, Pendulum, vibrating wire of guitar, etc.