Class Notes	
Class: VI	**Topic: Chapter – 10 —Motion and Measurement of Distances**
Subject: Science	

NCERT Book Exercise (To be written in science copy)

Q1 Give two examples of each modes of transport used on land, water and air?

Answer – There are mainly three modes of transport which are given below-

(i) Land—Bus, truck, train.

(ii) Water—Ship, boat.

(iii) Air—Aeroplane, Helicopter.

Q3 Why can a pace or a footstep not be used as a standard unit of length?

Answer – Because the size of pace or footstep of different people are different so the length measured by two different person using their footstep will not be the same. Due to this reason pace or a footstep cannot be used as a standard unit of length.

Q4. Arrange the following lengths in their increasing magnitude:

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

Answer: Ascending order of length:

1 millimetre < 1 centimetre < 1 metre < 1 kilometre

Q5. The height of a person is 1.65 m. Express it in cm and mm.

Answer : Given data -

Height of the person = 1.65 m

(a) 1.65 m, as one metre = 100 cm

= 1.65 x 100 cm = 165 cm

(b)1.65 m, as 1 m = 100 cm and 1 cm = 10 mm

So 1.65 m = 1.65 x 100 x 10 mm = 1650 mm.

Q6. The distance between Radha's home and her school is 3250 m. Express this distance in km.

Answer : Given that - The distance between Radha's home and her school is 3250 m.

We know that 1000 m = 1 km

So,

$$3250\ \text{m} = \frac{3250}{1000}\ \text{km} = 3.250\ \text{km}$$

Thus, distance between Radha's home and her school is 3.250 km.

Q7 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 – Given data

Initial Reading = 3 cm

Final Reading = 33.1 cm

So, Length of the needle = Final reading – Initial reading

Length of the needle = 33.1 -3.0

Length of the needle = 30.1 cm

Q8. Write the similarities and differences between the motion of a bicycle and a ceiling fan that has been switched on.

Answer:
Similarity:
(1) Both the wheel of a bicycle and a ceiling fan exhibit motion on a fixed axis.
(2) The particle of both objects exhibit circular motion except the particles at the center.
Dissimilarity:
(1) Bicycle moves forward thus executes rectilinear motion but fan does not show such motion.
(2) Position of a bicycle is changing while fan is fixed at a place.

Question 9. Why would you not like to use a measuring tape made of an elastic material like rubber to measure distance? What would be some of the problems you would meet in telling someone about a distance you measured with such a tape ?

Answer-
Elastic substances have the property of elasticity i.e. these can be stretched by applying some force. Therefore, an elastic measuring tape will not give accurate measurement of distance. In elastic measuring tape, measurement of same object may be different due to its stretching property.

Question 10. Give two examples of periodic motion.

Answer- The two examples of periodic motion are:
(a) Motion of the earth around the sun (revolution of the Earth).
(b) Motion of the pendulum.

EXTRA QUESTIONS

Q1. State the precaution which should be taken while using a meter scale to measure the length of an object?

Answer- Precautions for using meter scales are as follows-
a) Place the ruler exactly along the length.
b) Position your eye exactly above the point where you make measurement.
c) Don't use zero mark if ends are worn out.

Q.2 What is standard unit of measurement? Why is it necessary to have standard unit of measurement?

Answer-A standard unit is a fixed measure of a physical quantity. We need standard units for the following two major reasons-
(a) To measure quantities accurately.
(b) To maintain uniformity.

Q3. Some objects have more than one type of motion at the same time. Give any two examples of such motion?

Answer –
a) Motion of drill machine – Rotational and rectilinear motion
b) Motion of Earth - Rotation on its own axis and revolves around the sun.