



## INDIAN SCHOOL AL WADI AL KABIR



CLASS: VI	DEPARTMENT: SCIENCE 2021 - 2022	DATE: 09/09/2021
TEXTBOOK Q & A	TOPIC: MOTION AND MEASUREMENT OF DISTANCES	NOTE: A4 FILE FORMAT
NAME OF THE STUDENT:	CLASS & SEC:	ROLL NO.

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

Ans - (i) Land - Bus, truck, train.

(ii) Water - Ship, boat.

(iii) Air - Aeroplane, Helicopter.

2. Fill in the blanks:

(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/ rotational motion.

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

Ans - Pace or a footstep cannot be used as a standard unit of length because it varies from person to person.

4. Arrange the following lengths in their increasing magnitude:

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

Ans - 1 millimetre < 1 centimetre < 1 metre < 1 kilometre

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

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

$$= 1.65 \times 100 \text{ cm} = \underline{165 \text{ cm}}$$

(b) 1 cm = 10 mm, Thus 165 cm = 165 x 10 mm = 1650 mm.

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

Ans - Distance between Radha's home and her school = 3250 m

$$1 \text{ km} = 1000 \text{ m}$$

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

$$= 3.250 \text{ km}$$

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

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?

Ans - Length of the needle = 33.1 cm – 3.0 cm

$$= \underline{30.1 \text{ cm.}}$$

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

Ans - (i) Similarity: Both the wheel of a bicycle and a ceiling fan exhibit motion on a fixed axis/circular motion.

(ii) Dissimilarity: Bicycle moves forward thus executes rectilinear motion but fan does not show such motion.

**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?**

**Ans** - An elastic measuring tape gives incorrect length of the distance between two points.

**Reasons:**

- (i) The length of the elastic tape varies and depends upon the force by which it is stretched.
- (ii) Measurement would vary between 2 or 3 readings even when measured by the same person and by the same elastic tape.
- (iii) Measurement would also vary if different persons measure the same distance.

**10. Give two examples of periodic motion.**

**Ans** - (i) Oscillations of a pendulum.

(ii) Motion of swing/motion of earth round the sun.

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