

Motion and Measurement

ORAL QUESTIONS

A. Answer these questions orally.

1. What are the two types of translatory motion?
2. What are the two types of circular motion?
3. One minute is equal to how many seconds?
4. One hour is equal to how many seconds?
5. What is the SI unit of temperature?
6. What is a thermometer?

B. Match the Columns.

COLUMN A

1. 1 tonne
2. 1 mg
3. 1 g
4. 1 kg
5. 1 quintal

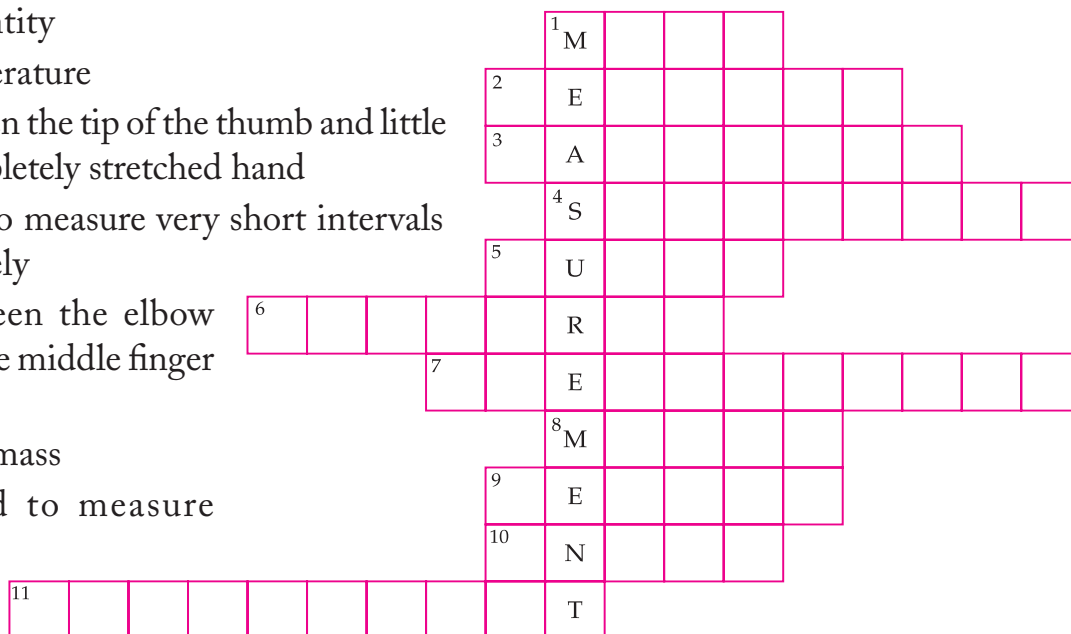
COLUMN B

- (a) 1000 mg
- (b) 100 kg
- (c) 10,00,000 mg
- (d) 1000 kg
- (e) 1/1000 g

PUZZLE / QUIZ

C. Complete the following word ladder with the help of the clues given.

1. A physical quantity
2. A unit of temperature
3. Distance between the tip of the thumb and little finger of a completely stretched hand
4. A device used to measure very short intervals of time accurately
5. Distance between the elbow and the tip of the middle finger of an arm
6. The SI unit of mass
7. A device used to measure temperature
8. The SI unit of length



9. Another unit of temperature
10. Width of a finger
11. Unit of temperature used for clinical purposes

CLASS TEST

D. MCQ–Tick (✓) the correct option.

1. What is the length of this line?
 (a) 9.2 cm (b) 5.2 cm
 (c) 5.0 cm (d) 4.0 cm
2. Which unit of length will you use to express the distance between New Delhi and Mumbai?
 (a) m (b) km
 (c) cm (d) dm
3. 5.4 km is equal to
 (a) 5400 cm (b) 540 cm
 (c) 54 cm (d) 540000 cm
4. 7.5 m is equal to
 (a) 75 mm (b) 750 mm
 (c) 7500 mm (d) 75000 mm
5. What is the smallest length which can be measured accurately by using a scale?
 (a) 1 cm (b) 1 m
 (c) 1 km (d) 1 mm
6. Which measuring device will you use to measure the girth of a tree?
 (a) Divider (b) Ruler
 (c) Measuring tape (d) All the above
7. Arrange these masses in the increasing order :
 gram, quintal, milligram, kilogram
 (a) gram, quintal, milligram, kilogram
 (b) quintal, gram, milligram, kilogram
 (c) milligram, gram, kilogram, quintal
 (d) quintal, kilogram, gram, milligram

E. Very short answer questions.

1. Give the most appropriate term for the following.

(a) A fixed known amount (unit) of specific quantity, accepted universally

(b) Anything that can be measured.

(c) Width of a finger.

2. What is a periodic motion?

3. How was length measured by man in ancient times?

4. What do you understand by 'physical quantities'?

5. Name three common devices used for measuring length.

6. On what factors does the choice of a measuring device to be used depend on?

7. What do you understand by 'temperature'?

F. Short answer questions.

1. What do you understand by the term 'motion'?

2. What do you understand by 'rectilinear motion'?

3. The distance between Ritu's house and her school is 5.75 km. What is the distance in metres?

4. Rizwan's height is 163 cm. What is his height in millimetres?

G. Long answer questions.

1. Oscillatory motion and vibratory motion are periodic motions. Justify the statement.

2. How will you measure the diameter of a spherical ball?

3. How will you measure the thickness of a metallic scale?

4. How will you measure the length of a curved line?

HOME ASSIGNMENT

H. Think and answer.

1. Gautam observed the motion of a drill machine used by a carpenter for drilling a hole in the wooden almirah. He classified it as simultaneous motion. Why?

2. Supriya wanted to measure the length of her Hindi copy. When she took a scale, she found that the end of the scale was worn out between 1 cm and 2 cm readings due to overuse.

(a) Where should she start measuring so that she gets a correct measurement?

(b) How should she position her eyes to note down the correct reading?

(c) If she starts measuring from 3 cm and the other end of the copy is at 14.8 cm, what should she do to obtain the correct length of the copy?

(d) What is the length of her copy?

3. Pankaj wanted to know the thickness of a page of his science book. There were 216 pages in his book. He measured the total thickness of the pages with a metre scale and found out to be 1.3 cm.

(a) How will he calculate the total thickness of one page?

(b) Calculate the thickness of one page of his science book.

(c) Can you use the above method to find the thickness of a one-rupee coin? How?

WORKSHEET

I. Give reasons for the following.

1. The length of a curved line cannot be measured with a scale. Why?

2. While noting down the reading, the eye should be placed just vertically above the reading of the scale.
