



PHYSICS

BOOKS - ICSE

FORCE AND PRESSURE : MOTION

Questions Choose The Correct Option To Fill In The Blank

1. A body is said to be (at rest/in motion) when its position changes with the

surroundings.



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2. A vehicle moving on a straight road has (rectilinear/curvilinear) motion.



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3. Moving blades of windmill has (rotatory/curvilinear) motion.



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4. Wheels of a car have
(rotatory/multiple) motion.



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5. When you cycle through a crowded area,
you have (uniform/non uniform)
speed.



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6. A body is in uniform motion if it covers equal distances in equal intervals of time (in any direction/in a specified direction).



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7. A car moving around a circular track with uniform speed is in(non-uniform motion/uniform motion).



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8. If the displacement is zero, velocity is(maximum/zero).



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9. Acceleration is a (scalar/vector) quantity.



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10. When the net force on a body is more, acceleration is (more/less).



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**Questions Write T For True And F For False
Correct The False Statements**

1. Mass is a vector quantity .



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2. The shortest distance that takes direction into account is called displacement.



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3. The SI unit of distance is m, whereas the SI unit of displacement is km.



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4. Velocity is speed with direction.



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5. Velocity does not change when direction changes.



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Exercises Section I

1. Name the following.

Translatory motion along a curved line



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2. Name the following.

A motion that repeats itself at regular intervals



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3. Name the following.

When a body covers equal distances in equal intervals of time



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4. Name the following.

Speed with direction



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5. Name the following.

Gravitational force exerted by the Earth on an object .



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6. Name the following.

An instrument to measure weight of an object

.



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7. Revolution of the Earth is an example of

A. translatory motion

B. oscillatory motion

C. periodic motion

D. both a and c

Answer:



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8. An example of a vector quantity

A. Force

B. Time

C. Length

D. Distance

Answer:



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9. Velocity is

A. distance/time

B. distance \times time

C. displacement/time

D. displacement \times time

Answer:



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10. A body moving with uniform velocity

A. has high average speed

B. is in uniform motion

C. has low average speed

D. is in non-uniform motion

Answer:



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11. Weight of an object

- A. is measured in kg
- B. can vary from place to place
- C. is a scalar quantity
- D. is amount of matter present

Answer:



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12. The plucked string of a guitar has vibratory motion .



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13. Displacement is a scalar quantity



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14. A body is said to be in uniform motion if it has uniform velocity.



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15. Weight of a person on the Earth depends on the gravitational force exerted by the Earth.



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Exercises Section I Write T For True And F For False Correct The False Statements

1. A toy train moving around a circular track has rotatory motion.



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Exercises Section I Choose The Correct Option To Fill In The Blank

1. In(rotatory/translatory) motion, an object is permanently displaced from its original position



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2. Movement of a fly is an example of
(mutiple motion/random motion).



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3. When a body moves along a straight line covering equal distances in equal intervals of time then the body has(uniform speed/uniform velocity).



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4. The gravitational pull on an object decreases as its distance..... (decreases/increases) from the surface of the Earth.



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5. The gravitational force exerted by the Earth on an object is called (weight/mass)



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6. The weight of a person on moon is.....
(greater than/less than that on the Earth.



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7. Mass of a person on the Earth is 56 kg. His
mass on Jupiter will be(more than 56
kg/exactly 56 kg)



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Exercises Section II

1. Give reason for the following.

Rest and motion are relative terms



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2. Give reason for the following.

Displacement can become zero, but distance cannot



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3. Give reason for the following.

Weight of an object on Jupiter is more than that on the Earth.



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4. Distinguish between the following

Circular and rotatory motion



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5. Distinguish between the following

Oscillatory and vibratory motion



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6. Distinguish between the following

Scalar and vector quantities



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7. Distinguish between the following

Uniform and non-uniform velocity



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8. Distinguish between the following

Mass and weight



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Exercises Section II Short Answer Questions

1. What do you mean by multiple motion? Give an example.



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2. What do you mean by average speed?



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3. What do you mean by a vector? Give two examples.





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4. What is uniform velocity?



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5. What is weight?



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6. What is the principle on which a spring balance works?



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Exercises Section II Long Answer Questions

1. Explain translatory motion. Describe two types of translatory motion with examples.



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2. Explain the difference between distance and displacement with an example.



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3. Explain how is velocity different from speed.



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4. Describe the term weight. Explain how weight changes with distance from the Earth .





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Exercises Section II Numerical Questions

1. A boy goes to a shop, which is 3 km away, buys things and comes back. What is the distance and displacement in km and m?



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2. A whale swims due East for a distance of 5 km. turns around and goes due West for 1.8

km, and finally turns around again and heads 1.2 km due East. What is the distance and displacement of the whale?



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3. A car travels 40 km in the first hour, 45 km in the second hour, and 35 km in the third hour. Calculate the average speed of the vehicle in km/h and m/s.



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4. What is the distance travelled by a plane flying for about 3 hours at a speed of 350 km/h?



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5. If a girl runs around a circular track of length 400 m and comes back to the initial point in 40 s, what would be her speed and velocity?



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6. How far will a car with average speed 60 km/h move in 4 hours?

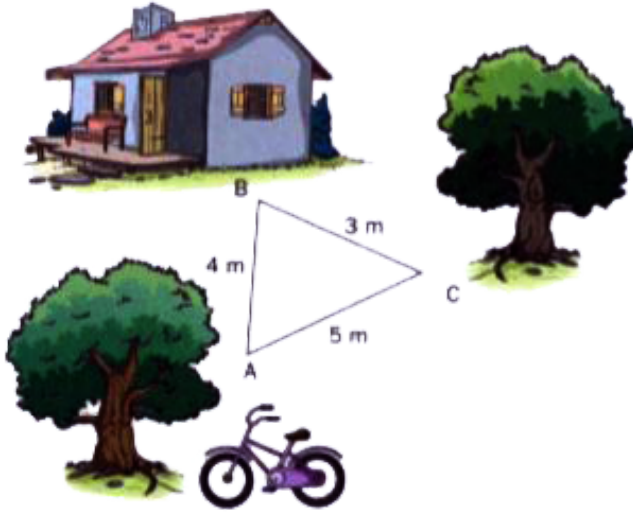


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Exercises Section II Picture Study

1. Mark the path of distance and displacement of a cyclist moving from to a friend's house at

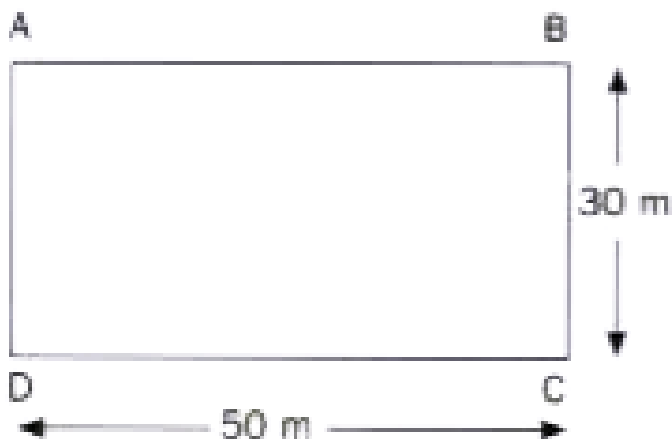
B and then to another tree C



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2. Find the distance and displacement of a physics teacher who walks around a rectangular field twice. She starts from the

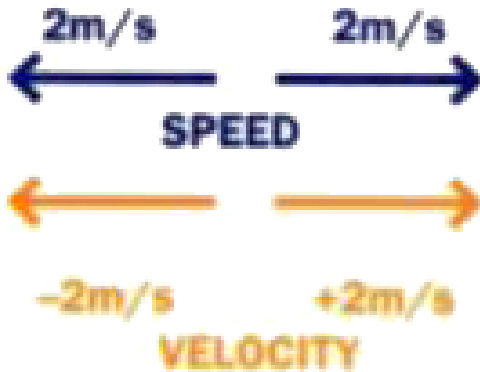
point A. goes over to B, C, and D then finally to point A.



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3. Why is that speed is given as 2 m/s in both directions while velocity is given as - 2 m/s and

+2 m/s in the figure alongside?



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4. Looking at the two tables below, figure out which one depicts (a) uniform velocity (b) non-

uniform velocity

Table 1

Time in h	Position (km)	Direction
0	0	
1	30	West
2	60	West
3	90	West

Table 2

Time in h	Position (km)	Direction
0	0	
1	30	East
2	60	North
3	90	West



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