

# Motion

## Multiple Choice Questions

Question 1.

Who gave the equations of motion for the first time?

- (a) Bernhard Nobel
- (b) Issac Newton
- (c) C. V. Raman
- (d) Einstein

▼ [Answer](#)

Answer: (b) Issac Newton

Question 2.

The displacement of the object in a unit time is called:

- (a) speed
- (b) velocity
- (c) acceleration
- (d) average speed

▼ [Answer](#)

Answer: (b) velocity

- (b) velocity
- (c) acceleration
- (d) average speed

▼ [Answer](#)

Answer: (b) velocity

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Question 3.

The rate of change of velocity per second is known as:

- (a) acceleration
- (b) speed
- (c) average velocity
- (d) linear motion

▼ [Answer](#)

Answer: (a) acceleration

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Question 4.

If the velocity of an object changes from an initial value  $u$  to the final value  $v$  in time  $t$ , the acceleration  $a$  will be:

- (a)  $a = \frac{v-u}{t}$
- (b)  $a = \frac{v+u}{t}$
- (c)  $a = \frac{t}{v-u}$
- (d)  $a = \frac{t}{v+u}$

▼ [Answer](#)

Answer: (a)  $a = \frac{v-u}{t}$

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Question 5.

What is the unit of acceleration?

- (a) m/s
- (b)  $\text{m/s}^2$
- (c) ms
- (d)  $\text{m/s}^3$

▼ [Answer](#)

Answer: (b)  $\text{m/s}^2$

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Question 6.

The unit of speed and velocity both is:



- (a)  $\text{ms}^{-1}$
- (b)  $\text{ms}^{-2}$
- (c)  $\text{ms}^2$
- (d)  $\text{ms}$

▼ [Answer](#)

Answer: (a)  $\text{ms}^{-1}$

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Question 7.

A particle is moving in a circular path of radius  $r$ . The displacement after half a circle would be:

- (a) zero
- (b)  $\pi r$
- (c)  $2r$
- (d)  $2\pi r$

▼ [Answer](#)

Answer: (c)  $2r$

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Question 8.

A body is thrown vertically upward with velocity  $u$ , the greatest height  $h$  to which it will rise is:

- (a)  $u/g$
- (b)  $u^2/2g$
- (c)  $u^2/g$
- (d)  $u/2g$

▼ [Answer](#)

Answer: (b)  $u^2/2g$

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Question 9.

The slope of a velocity-time graph gives:

- (a) the distance
- (b) the displacement
- (c) the acceleration
- (d) the speed

▼ [Answer](#)

Answer: (c) the acceleration

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Question 10.

If the displacement of an object is proportional to the square of time, then the object moves with:



- (a) uniform velocity
- (b) uniform acceleration
- (c) increasing acceleration
- (d) decreasing acceleration

▼ [Answer](#)

Answer: (b) uniform acceleration

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### Fill in the Blanks.

Question 11.

Newton's \_\_\_\_\_ law is based on the concept of inertia.

▼ [Answer](#)

Answer: first

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Question 12.

Negative acceleration is known as \_\_\_\_\_

▼ [Answer](#)

Answer: retardation

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Question 13.

If the path of a moving object is a straight line then, such a motion is known as a \_\_\_\_\_

▼ [Answer](#)

Answer: linear motion

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Question 14.

\_\_\_\_\_ and \_\_\_\_\_ laid down the scientific foundation of concept of motion.

▼ [Answer](#)

Answer: Galileo, Newton

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Question 15.

Velocity is \_\_\_\_\_ quantity.

▼ [Answer](#)

Answer: vector

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Question 16.

During the uniform motion of an object along a straight line, the velocity remains \_\_\_\_\_ with time.

▼ [Answer](#)

Answer: constant

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Question 17.

The initial velocity of an object moving from the position of rest is \_\_\_\_\_

▼ [Answer](#)

Answer: zero

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Question 18.

The displacement of the object in a unit time is called \_\_\_\_\_

▼ [Answer](#)

Answer: velocity

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[True/False.](#)

Question 19.

Acceleration is a measure of the change in the velocity of an object per unit of time.

▼ [Answer](#)

Answer: True

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Question 20.

The acceleration of an object is indirectly proportional to the net applied force.

▼ [Answer](#)

Answer: False

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Question 21.

Motion is a change of position, it can be described in terms of the distance moved or the displacement.

▼ [Answer](#)

Answer: True

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Question 22.

The simplest type of motion is the motion along a straight line.

▼ [Answer](#)

Answer: True

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Question 23.

Automobiles are fitted with a device that shows the distance travelled. Such a device is known as an odometer.

▼ [Answer](#)

Answer: True

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[Match the Column.](#)

Question 24.

A	B
1. C.G.S. unit of acceleration	(i) Distance
2. Motion of a pendulum	(ii) $\text{cm/s}^2$
3. Scalar quantity	(iii) Simple harmonic motion
4. Momentum	(iv) Velocity/time
5. Acceleration	(v) Vector quantity

▼ [Answer](#)

Answer:

A	B
1. C.G.S. unit of acceleration	(ii) $\text{cm/s}^2$
2. Motion of a pendulum	(iii) Simple harmonic motion
3. Scalar quantity	(i) Distance
4. Momentum	(v) Vector quantity
5. Acceleration	(iv) Velocity/time

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[Answer in one Word/Sentence.](#)

Question 25.

Write the unit of momentum.



▼ [Answer](#)

Answer:  $\text{kg m/s}$  or  $\text{kg ms}^{-1}$

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Question 26.

Give one example of simple harmonic motion.

▼ [Answer](#)

Answer: Motion of the pendulum of a clock

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Question 27.

A body is moving with constant velocity, then what will be the acceleration of that body?

▼ [Answer](#)

Answer: zero (0)

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Question 28.

What does the odometer of an automobile measure?

▼ [Answer](#)

Answer: The distance travelled

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Question 29.

The motion of an athlete moving along a circular path, is an example of what type of motion?

▼ [Answer](#)

Answer: An accelerated motion

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