

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

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

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

Question 5.

What is the unit of acceleration?

- (a) m/s
- (b) m/s^2
- (c) ms
- (d) m/s^3

▼ [Answer](#)

Answer: (b) m/s^2

Question 6.

The unit of speed and velocity both is:

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

▼ [Answer](#)

Answer: (a) ms^{-1}

Question 7.

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

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

▼ [Answer](#)

Answer: (c) $2r$

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) $u^2/2g$

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

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

[Fill in the Blanks.](#)

Question 11.

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

▼ [Answer](#)

Answer: first

Question 12.

Negative acceleration is known as _____

▼ [Answer](#)

Answer: retardation

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

Question 14.

_____ and _____ laid down the scientific foundation of concept of motion.

▼ [Answer](#)

Answer: Galileo, Newton

Question 15.

Velocity is _____ quantity.

▼ [Answer](#)

Answer: vector

Question 16.

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

▼ [Answer](#)

Answer: constant

Question 17.

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

▼ [Answer](#)

Answer: zero

Question 18.

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

▼ [Answer](#)

Answer: velocity

[True/False.](#)

Question 19.

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

▼ [Answer](#)

Answer: True

Question 20.

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

▼ [Answer](#)

Answer: False

Question 21.

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

▼ [Answer](#)

Answer: True

Question 22.

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

▼ [Answer](#)

Answer: True

Question 23.

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

▼ [Answer](#)

Answer: True

[Match the Column.](#)

Question 24.

A	B
1. C.G.S. unit of acceleration	(i) Distance
2. Motion of a pendulum	(ii) 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) 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

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

Question 25.

Write the unit of momentum.

▼ [Answer](#)

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

Question 26.

Give one example of simple harmonic motion.

▼ [Answer](#)

Answer: Motion of the pendulum of a clock

Question 27.

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

▼ [Answer](#)

Answer: zero (0)

Question 28.

What does the odometer of an automobile measure?

▼ [Answer](#)

Answer: The distance travelled

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
