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

Ouestion 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

Ouestion 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) $a = \frac{t}{v+u}$ (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) $u^2/2g$

Ouestion 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 veloci(b) uniform accele(c) increasing acce(d) decreasing accele	eration eleration
▼ Answer	
Answer: (b) unifo	rm acceleration
Fill in the Blanks.	
Question 11. Newton's	_ law is based on the concept of inertia.
▼ Answer	
Answer: first	
Question 12. Negative acceleration	tion is known as
▼ Answer	
Answer: retardation	on
Question 13. If the path of a mo	oving object is a straight line then, such a motion is known as a
▼ Answer	
Answer: linear mo	otion
Question 14.	laid down the scientific foundation of concept of motion.
▼ Answer	
Answer: Galileo,	Newton
Question 15. Velocity is	_ quantity.
▼ Answer	
Answer: vector	
P	





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

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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.

В A

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:

В Α

1. C.G.S. unit of acceleration

(ii) cm/s^2

2. Motion of a

(iii) Simple

pendulum

harmonic motion

3. Scalar quantity (i) Distance

4. Momentum

(v) Vector quantity

5. Acceleration

(iv) Velocity/time

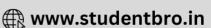
Answer in one Word/Sentence.

Question 25.

Write the unit of momentum.







▼ Answer

Answer: kg m/s or kg ms⁻¹

Ouestion 26.

Give one example of simple harmonic motion.

▼ Answer

Answer: Motion of the pendulum of a clock

Ouestion 27.

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

▼ Answer

Answer: zero (0)

Ouestion 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





