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

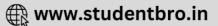
Answer: (b) Issac Newton

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

(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/s² (c) ms (d) m/s³

▼ 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

Ouestion 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) $u^2/2g$

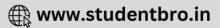
Ouestion 9. The slope of a velocity-time graph gives: (a) the distance (b) the displacement (c) the acceleration (d) the speed

▼ 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 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

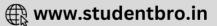
Answer: Galileo, Newton

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

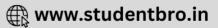
Answer: False

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.

А	В
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

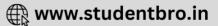
Answer:

А	В
1. C.G.S. unit of acceleration	(ii) cm/s ²
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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

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



