

Kinematics

Sr	Questions	Answers Choice
1	Area under speed-time graph is equal to.....of moving body	A. Acceleration B. Distance C. Change in velocity D. Uniform velocity
2	If a cyclist has acceleration of 2 m/s^2 for 5 seconds, the change in velocity of the cyclist is.	A. 15 m/s B. 10 m/s C. 2 m/s D. 20 m/s
3	A girl walks 3 km towards west and 4 km towards south. What is the magnitude of her total distance and displacement respectively.	A. $7 \text{ km}, 5 \text{ km}$ B. $7 \text{ km}, 7 \text{ km}$ C. $1 \text{ km}, 7 \text{ km}$ D. $7 \text{ km}, 1 \text{ km}$
4	A ball is dropped from the top of a tower, the distance covered by it in the first second is.	A. 5 m B. 10 m C. 50 m D. 100 m
5	A body accelerates from rest to a velocity of 144 km h^{-1} in 20 seconds. The distance covered by it is.	A. 100 m B. 1400 m C. 400 m D. 1440 m
6	Motion of a screw of rotating fan is	A. Circular Motion B. Vibratory motion C. Rotatory motion D. Random Motion
7	When the slope of a body's displacement-time graph increases the body is moving with	A. Constant velocity B. Increasing velocity C. Decreasing velocity D. All of these
8	A cyclist is travelling in a westward direction and produces a deceleration of 8 m/s^2 to stop	A. West B. North C. East D. South
9	Slope of distance-time graph is.	A. Speed B. Velocity C. Acceleration D. Displacement
10	Ball dropped freely from a tower reaches ground in 4 s, the speed of impact of ball is.	A. 2.45 m/s B. 39.2 m/s C. 0 m/s D. 19.6 m/s
11	In 5 s a car accelerates so that its velocity increases by 20 m/s . The acceleration is	A. 0.25 m/s^2 B. 4 m/s^2 C. 100 m/s^2 D. 25 m/s^2
12	Gradient of the speed-time graph is equal to.	A. Speed B. distance covered C. Acceleration D. Velocity
13	The area under the speed-time graph is numerically equal to	A. Distance covered B. Velocity C. Uniform velocity D. Acceleration
14	The numerical ratio of displacement to distance is	A. Equal to or less than one B. Always greater than one C. Always equal to one D. Always less than one
15	Gradient of the distance-time graph is equal to the	A. Distance covered B. Acceleration C. Speed D. Velocity

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- 16 A body is moving with constant acceleration starting from rest. It covers a distance S in 4 seconds. How much time does it take to cover one-fourth of this distance.
A. 1 s
B. 2 s
C. 4 s
D. 16 s
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- 17 A rider is traveling a distance. He moves 60 meters towards right in 3 seconds. Then it turns back and travels 30 meters in 2 seconds. Find its average velocity.
A. 18 m/s
B. 6 m/s
C. 0 m/s
D. 35 m/s
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- 18 A ball is thrown straight up, what is the magnitude of acceleration at the top of its path.
A. 9.8 m/s²
B. zero
C. 19.6 m/s²
D. 4.9 m/s²
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- 19 If a body does not change its position with respect to some fixed point, then it will be in a state of.
A. Motion
B. Uniform motion
C. Rest
D. Variable motion
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- 20 Change in position of a body from initial to final point is called
A. Velocity
B. Speed
C. Displacement
D. Distance
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