

## Kinematics

Sr	Questions	Answers Choice
1	Slope of distance-time graph is.	A. Speed B. Velocity C. Acceleration D. Displacement
2	A car is moving with velocity of 10 m/s . If it has acceleration of 2 m/s <sup>2</sup> for 10 seconds. What is final velocity of the car.	A. 20 m/s B. 10 m/s C. 30 m/s D. 15 m/s
3	Change in position of a body from initial to final point is called	A. Velocity B. Speed C. Displacement D. Distance
4	Area under speed-time graph is equal to.....of moving body	A. Acceleration B. Distance C. Change in velocity D. Uniform velocity
5	Gradient of the speed-time graph is equal to.	A. Speed B. distance covered C. Acceleration D. Velocity
6	In 5 s a car accelerates so that its velocity increases by 20 m/s. The acceleration is	A. 0.25 m/s <sup>2</sup> B. 4 m/s <sup>2</sup> C. 100 m/s <sup>2</sup> D. 25 m/s <sup>2</sup>
7	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
8	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 km, 5 km B. 7 km, 7 km C. 1 km, 7 km D. 7 km, 1 km
9	The area under the speed-time graph is numerically equal to	A. Distance covered B. Velocity C. Uniform velocity D. Acceleration
10	A body accelerates from rest to a velocity of 144 km h <sup>-1</sup> in 20 seconds. The distance covered by it is.	A. 100 m B. 1400 m C. 400 m D. 1440 m
11	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
12	Motion of a screw of rotating fan is	A. Circular Motion B. Vibratory motion C. Rotatory motion D. Random Motion
13	A ball is thrown straight up, what is the magnitude of acceleration at the top of its path.	A. 9.8 m/s <sup>2</sup> B. zero C. 19.6 m/s <sup>2</sup> D. 4.9 m/s <sup>2</sup>
14	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
15	If a cyclist has acceleration of 2 m/s <sup>2</sup> 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

16	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
17	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
18	When the slope of a body's displacement time graph increase the body is moving with	A. Constant velocity B. Increasing velocity C. Decreasing velocity D. All of these
19	A cyclist is travelling in a westward direction and produces a deceleration of $8 \text{ m/s}^2$ to stop	A. West B. North C. East D. South
20	A rider is training a horse. 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