

## Kinematics

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

16	A rider is trainign a hours. Hore move 60 meters towrds right in 3 seconds. Then it turns back and travels 30 meters in 2 secons. Find its average velocity.	A. 18 m/s B. 6 m/s C. 0 m/s D. 35 m/s
17	A girl walks 3 km towards west and 4 km towards south. What is the magnitude of her total disance and displacement respectively.	A. 7 km, 5 km B. 7 km, 7 km C. 1 km, 7 km D. 7 km, 1 km
18	Change in positionof a body from initial to final point is called	A. Velocity B. Speed C. Displacement D. Distance
19	Ball dropped freely from a towar 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
20	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