Class 11 Physics Chapter 3 Motion In A Straight Line MCQs

1. Consider a body moving with an acceleration of 2 m/s². After t seconds its velocity is 10 m/s. Find 't'.
   - (a) 4 s
   - (b) 20 s
   - (c) 5 s
   - (d) 8 s

2. For the motion with uniform velocity, the slope of the velocity-time graph is equal to
   - (a) 1 m/s
   - (b) Zero
   - (c) Initial velocity
   - (d) Final velocity

3. Two trains of 40 m length are traveling in opposite directions with a velocity of 10 m/s and 15 m/s. What is the time of crossing?
   - (a) 1s
   - (b) 2.4 s
   - (c) 3.2 s
   - (d) 4.4 s

4. The change in velocity corresponding to the time interval within which the change has accelerated is known as
   - (a) Speed
   - (b) Instantaneous Velocity
   - (c) Uniform Motion
   - (d) Average Acceleration

5. A particle is moving with a constant speed along a straight-line path. A force is not required to
   - (a) change its direction
   - (b) decrease its speed
   - (c) keep it moving with uniform velocity
   - (d) Increase its momentum

6. Unit of acceleration is

    (a) m^2s

    (b) m/s

    (c) m/s^2

    (d) m/s^3

7. When the distance travelled by a body is proportional to the time taken. What happens to its speed?

    (a) Becomes zero

    (b) Remains the same

    (c) Increases

    (d) Decreases

8. Which is the formula for motion in a straight line?

    (a) v =u + at

    (b) v =u - at

    (c) U = 2at+v

    (d) v = 2at+u

9. Which among the following can be zero when a particle is in motion for some time?

    (a) Speed

    (b) Force

    (c) Time

    (d) Displacement

10. The ratio of the average velocity and average speed of a body is

    (a) 1

    (b) More than 1

    (c) 1 or Less than 1

    (d) None of the option

********** **Answer Key** **********

1-(c)	2-(b)	3-(c)	4-(d)	5-(c)
6-(c)	7-(b)	8-(a)	9-(d)	10-(c)