

**MOTION**

4. If a body is projected by making certain angle with horizontal into the air then the motion of the body is ( )

A) Uniform      B) Non-Uniform  
 C) Either Uniform or Non-uniform      D) cannot be decided

5. A body cannot have ( )

A) Constant speed and constant velocity  
 B) Constant speed and variable velocity  
 C) Constant velocity and variable speed  
 D) Variable speed and variable velocity

6. The speed-time graph is given below, which part of the graph represents Non uniform motion ( )

A) AB      B) BC      C) CD      D) AB and CD

5. If the acceleration of a moving object is constant then the motion is said to be ( )

A) Motion with constant speed.  
 B) Motion with uniform acceleration.  
 C) Motion with uniform velocity.  
 D) Motion with non-uniform acceleration.

6. The velocity of an object changes from 50m/s to 60m/s in 20sec. What is the average acceleration of the object? ( )

A) 1m/s<sup>2</sup>      B) 2m/s<sup>2</sup>  
 C) 0.5m/s<sup>2</sup>      D) 5.5m/s<sup>2</sup>

7. If a particle is moving along a straight line with increasing speed, then its acceleration is ( )

A) Negative      B) Positive  
 C) Both 'a' and 'b'      D) May be decreasing

8. For a stone whirled in a horizontal circle with constant speed, The acceleration is due to ( )

A) Change in speed      B) Change in direction of velocity  
 C) Change in magnitude of velocity      D) Both ' B 'and ' D '

4. The displacement of a particle starts from rest is proportional to the square of the time then particle is in ( )

A) Uniform acceleration      B) Uniform velocity  
 C) Increasing velocity      D) Decreasing velocity

5. A particle starts moving from rest with uniform acceleration. It travels a distance of 'x' in the first second and distance 'y' in the next second then ( )

A)  $y = x$       B)  $y = 2x$       C)  $y = 3x$       D)  $y = 4x$

6. A motor boat starting from rest on a lake accelerates along a straight line at the rate of  $2\text{m/s}^2$  for 20s. How far the boat travelled during this time ( )

A) 100m      B) 200m      C) 300m      D) 400m