

Worksheet: 4

Subject: - Physics

Class: - IX

Teacher: - Mrs. Kuljeet Kaur

Name: _____ Class & Sec: _____ Roll No. _____ Date: 15.05.2020

Chapter: Motion**2. FILL IN THE BLANK**

1. The magnitude of average velocity equal to the average speed.

Ans : may or may not be

2. Distance travelled divided by elapsed time gives

Ans : average speed

3. A body, dropped from a tower with zero velocity, reaches the ground in 4 sec. The height of the tower is about m

Ans : 80

4. A ball thrown vertically upwards return to its starting point in 4s. If $g = 10 \text{ m/s}^2$, its initial speed was

Ans : 20 m/s

5. When negative acceleration acts on a moving body its velocity

Ans : decreases

6. A stone is let to fall from a building of height 30m. The ratio of heights fallen by it after 2s and 3s is

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Ans : 4 : 9

7. If a car starts at rest and accelerates uniformly, the distance it travels is proportional to the of the time it travels.

Ans : square

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8. The speed-time graph of a moving object is a straight line parallel to the time-axis. It means the speed is

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Ans : uniform

9. If a car is going northward and the driver jams on its brakes, the direction of its acceleration is

Ans : south

10. A body moving with a uniform speed along a circle has velocity.

Ans : variable

3. TRUE/FALSE

1. A particle is known to be at rest at time $t = 0$. If its acceleration at $t = 0$ must be zero.

Ans : False

2. Magnitude of acceleration is constant in the rotating motion along a circular path.

Ans : True

3. The equation $s = ut + \frac{1}{2}at^2$ with the usual notation is vectorial in nature.

Ans : True

4. Magnitude of displacement can be equal to or lesser than distance.

Ans : True

5. In a journey, numerical value of displacement \leq distance.

Ans : True

6. If particle speed is constant, acceleration of the particle must be zero.

Ans : False

7. A particle moving with a uniform velocity must be along a straight line.

Ans : True

8. A particle in one dimensional motion with positive value of acceleration must be speeding up.

Ans : False

9. Area under velocity-time graph shows displacement.

Ans : True