

REVISION WORKSHEET

1	<p>The dimensions of Force is</p> <p>(a) $M^1L^1T^{-2}$ (b) $M^2L^2T^1$ (c) $M^1L^1T^2$ (d) $M^1L^2T^{-2}$</p>
2	<p>How many significant numbers in 40.3</p> <p>(a) 1 (b) 6 (c) 5 (d) 3</p>
3	<p>A particle is projected making an angle 45 with the horizontal, with k amount of kinetic energy. The kinetic Energy of the particle at the highest position is</p> <p>(a) 0 (b) $k/2$ (c) $k/4$ (d) k</p>
4	<p>Assertion and Reasoning: These questions consist of two statements, each printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses.</p> <p>Assertion : Displacement of a body may be zero when distance travelled by it is not zero. Reason : The displacement is the longest distance between initial and final position.</p> <p>A) If both assertion and reason are true and the reason is the correct explanation of the assertion. B) If both assertion and reason are true but reason is not the correct explanation of the assertion. C) If assertion is true but reason is false. D) If the assertion and reason both are false</p>
5	<p>Check the correctness of the equation $1/2mv^2=mgh$</p>
6	<p>Draw velocity-time graphs for one object moving with negative velocity and at rest</p>
7	<p>A particle is projected with a velocity of 40 m/s at an angle of 45 with the horizontal. Calculate maximum height, time of flight and range covered by the particle.</p>
8	<p>For an angular projection given to a projectile find (1) maximum height (2) Time of flight (3) Horizontal range</p>
9	<p>Case Study Based Question : Read the Case Study given below and answer the question that follow:</p> <p>When an object is in motion, its position changes with time. So, the quantity that describes how fast is the position changing w.r.t. time and in what direction is given by average velocity. It is defined as the change in position or displacement (Δx) divided by the time interval (Δt) in which that displacement occurs. However, the quantity used to describe the rate of motion over</p>

the actual path, is average speed. It defined as the total distance travelled by the object divided by the total time taken.

(i) A 100m long train is moving with a uniform velocity of 25 km/h. The time taken by the train to cross a bridge of length 200 m is

- (a) 56 s
- (b) 68 s
- (c) 80 s
- (d) none of this

ii) A truck requires 4hr to complete a journey of 200km. What is average speed?

- (a) 50 km/h
- (b) 25 km/h
- (c) 15 km/h
- (d) 10 km/h

(iii) Average speed of a car between points A and B is 20 m/s, between B and C is 15 m/s and between C and D is 10 m/s. What is the average speed between A and D, if the time taken in the mentioned sections is 20s, 10s and 5s, respectively?

- (a) 17.14 m/s
- (b) 15 m/s
- (c) 10 m/s
- (d) 45 m/s

(iv) A cyclist is moving on a circular track of radius 40 m completes half a revolution in 40 s. Its average velocity (in m/s) is

- (a) zero
- (b) 2
- (c) 4π
- (d) none of this