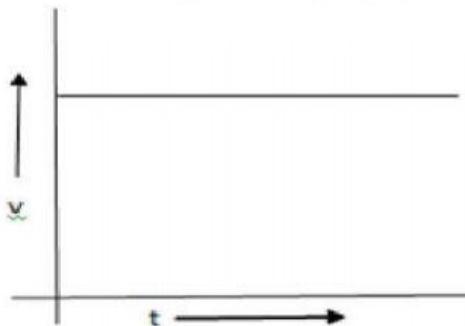


MOTION

1. If the displacement of an object is proportional to square of time, then the object moves with:

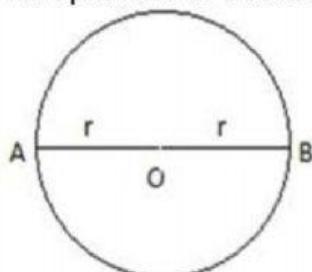
(a) Uniform velocity	(b) Uniform acceleration
(c) Increasing acceleration	(d) Decreasing acceleration
2. From the given v-t graph, it can be inferred that the object is



(a) At rest (b) In uniform motion
 (c) Moving with uniform acceleration (d) In non-uniform motion

3. Suppose a boy is enjoying a ride on a marry-go-round which is moving with a constant speed of 10 m/s. It implies that the boy is:

(a) At rest	(b) Moving with no acceleration
(c) In accelerated motion	(d) Moving with uniform velocity
4. A particle is moving in a circular path of radius r .



The displacement after half a circle would be:

(a) Zero (b) πr (c) $2r$ (d) $2\pi r$

5. Which of the following can sometimes be 'zero' for a moving body?

i. Average velocity	ii. Distance travelled	iii. Average speed	iv. Displacement
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- (a) Only (i) (b) (i) and (ii) (c) (i) and (iv) (d) Only (iv)
6. Which of the following statement is correct regarding velocity and speed of a moving body?

(a) Velocity of a moving body is always higher than its speed	(b) Speed of a moving body is always higher than its velocity
(c) Speed of a moving body is its velocity in a given direction	(d) Velocity of a moving body is its speed in a given direction
7. When a car driver travelling at a speed of 10 m/s applies brakes and brings the car to rest in 20 s, then the retardation will be:

(a) $+ 2 \text{ m/s}^2$	(b) $- 2 \text{ m/s}^2$	(c) $- 0.5 \text{ m/s}^2$	(d) $+ 0.5 \text{ m/s}^2$
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8. The speed - time graph of a car is given here. Using the data in the graph calculate the total distance covered by the car.

