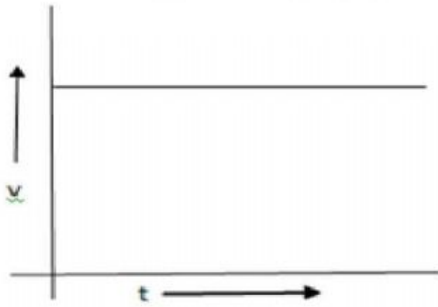## MOTION

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.
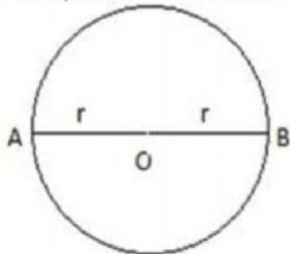
The displacement after half a circle would be:
(a) Zero
(b) пr
(c) 2r
(d) 2пr

5. Which of the following can sometimes be 'zero' for a moving body?
i. Average velocity   ii. Distance travelled   iii. Average speed   Iv. Displacement
(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 m/s^2
(b) − 2 m/s^2
(c) − 0.5 m/s^2
(d) + 0.5 m/s^2

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.