

OBJECTIVE TYPE QUESTIONS

1. 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) $+ 0.5 \text{ m/s}^2$

2. A car travels from stop A to stop B with a speed of 36 km/h and then returns back to A with a speed of 54 km/h. Find the displacement of the car.

- (a) 75m
(b) 0m
(c) 18m
(d) 90m

ASSERTION AND REASONING

DIRECTION: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:

- (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
(b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
(c) Assertion (A) is true but reason (R) is false.
(d) Assertion (A) is false but reason (R) is true.
(e) Both Assertion and Reason are false.

3. Assertion : An object can have constant speed but variable velocity. Reason : Speed is a scalar but velocity is a vector quantity.

4. Assertion : A body having non-zero acceleration can have a constant velocity. Reason : Acceleration is the rate of change of velocity.

5. 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.

6. Assertion: A bus moving due north takes a turn and starts moving towards east with same speed. There will be no change in the velocity of bus.

Reason: Velocity is a vector quantity

ONE MARK TYPE QUESTIONS

1.Can the displacement be greater than the distance travelled by an object?

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2.When do the distance and displacement of a moving object have the same magnitude?

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3.What is the difference between uniform velocity and non-uniform velocity

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4.What is negative acceleration? Explain with example

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5.What do you mean by positive acceleration?

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6.Distinguish between speed and velocity

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7.Define acceleration

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