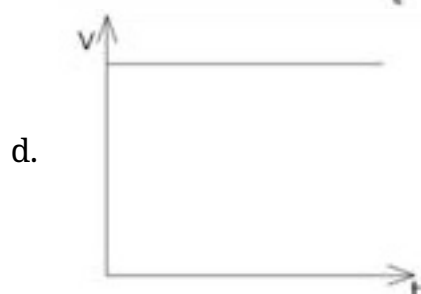
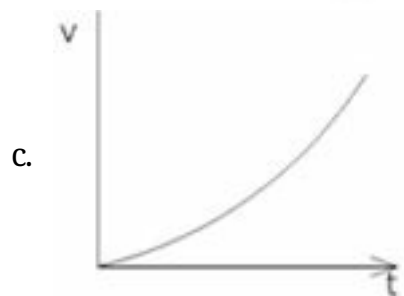
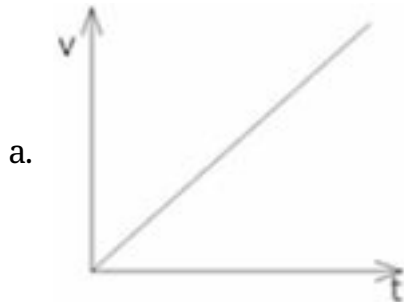


CBSE Test Paper 01

Chapter 08 Motion

1. If a body is at rest, then its velocity-time graph is **(1)**



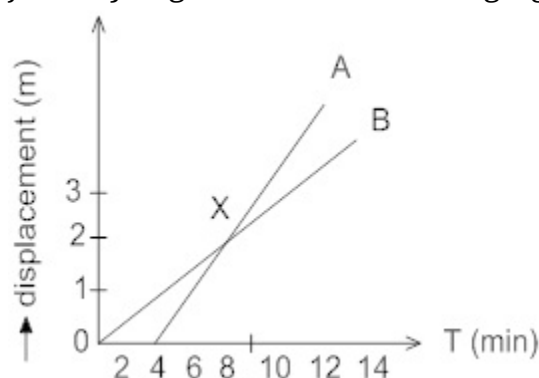
2. Which of the is true for displacement? **(1)**

- A) It cannot be zero
- B) Its magnitude is greater than the distance travelled by the object.
- C) It's the shortest distance between initial & final position.
- D) It is a vector quantity.

a. (A), (B) and (C) are correct

- b. (A) and (B) are correct
 - c. All of these
 - d. (C) and (D) are correct
3. A moving body is covering a distance directly proportional to the square of time. The acceleration of the body is **(1)**
- a. constant
 - b. zero
 - c. increasing
 - d. decreasing
4. Suppose a boy is enjoying a ride on a merry-go-round which is moving with a constant speed of 10ms^{-1} . It implies that the boy is **(1)**
- a. moving with no acceleration
 - b. at rest
 - c. in accelerated motion
 - d. moving with uniform velocity
5. What does the slope of velocity-time graph gives? **(1)**
- a. acceleration
 - b. force
 - c. displacement
 - d. distance
6. What does the odometer of an automobile measure? **(1)**
7. State SI unit of acceleration. **(1)**
8. Give an example of non-uniform acceleration? **(1)**
9. Define the term "displacement". **(1)**
10. State SI unit of speed. **(1)**
11. Why rest and motion are called relative terms? **(3)**

12. A farmer moves along the boundary of a square field of side 10 m. in 40 s. What will be the magnitude of displacement of the farmer at the end of 2 minutes 20 seconds **(3)**
13. A stone is thrown in a vertically upward direction with a velocity of 5 ms^{-1} . If the acceleration of the stone during its motion is 10 ms^{-2} in the downward direction, what will be the height attained by the stone and how much time will it take to reach there? **(3)**
14. Two boys A and B, travel along the same path. The displacement - time graph for their journey is given in the following figure: **(5)**



- How far down the road has B travelled when A starts the journey?
 - Without calculation, the speed, state who is travelling faster A or B?
 - What is the speed of A?
 - What is the speed of B?
 - Are the speed of A and B uniform?
 - What dose point X on the graph represent?
 - What is the speed of approach of A towards B?
 - What is the speed of separation of A from B?
15. Derive the second equation of motion $S = ut + at^2$ graphically? **(5)**