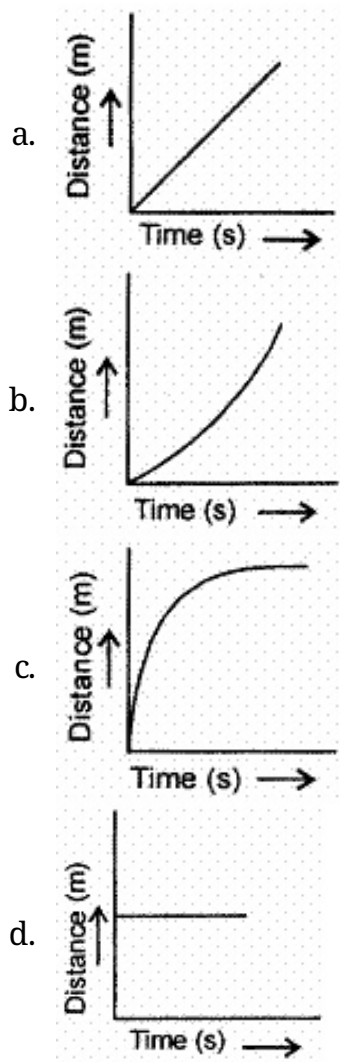


CBSE Test Paper 02

Chapter 08 Motion

1. Which of the following figures represent uniform motion of moving object correctly?

(1)



2. Which of the statement is true? (1)

Statement A: A curved line in a speed-time graph means non-uniform motion.

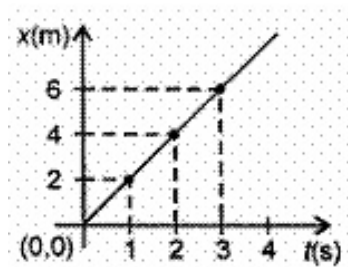
Statement B : A curved line in a velocity-time graph means uniform acceleration

- a. Statement A is false, B is true
- b. Both the statement A and B are true
- c. Neither statement A nor Statement B is true.
- d. Statement A is true, B is false

3. A body moving in a circle of radius r , covers $3/4^{\text{th}}$ of the circle. The ratio of the distance to displacement is **(1)**

- a. $3 : 2\sqrt{2}$
- b. $3\pi : 2\sqrt{2}$
- c. $3\sqrt{2} : 2\pi$
- d. $2\sqrt{2} : 3\pi$

4. The slope of the x-t graph is a measure of **(1)**



- a. velocity = 2ms^{-1}
- b. acceleration = 2ms^{-2}
- c. acceleration = $\frac{1}{2}\text{ms}^{-2}$
- d. velocity = $\frac{1}{2}\text{ms}^{-2}$

5. If a body starts from rest, what can be said about the acceleration of body? **(1)**

- a. Uniform accelerated
- b. Positively accelerated
- c. Negative accelerated
- d. Non-Uniform accelerated

6. The reference point from which the distance of a body is measured is called? **(1)**

7. How does the path of an object look graphically when it is in uniform motion? **(1)**

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

- a. It cannot be zero.
- b. Its magnitude is greater than the distance travelled by the object.

9. What is the quantity which is measured by the area occupied below the velocity-time

graph? **(1)**

10. Define one radian. **(1)**

11. The velocity of a body in motion is recorded every second as shown-

time (s)	0	1	2	3	4	5	6	7	8	9	10
velocity (m/s)	60	54	48	42	36	30	24	18	12	6	

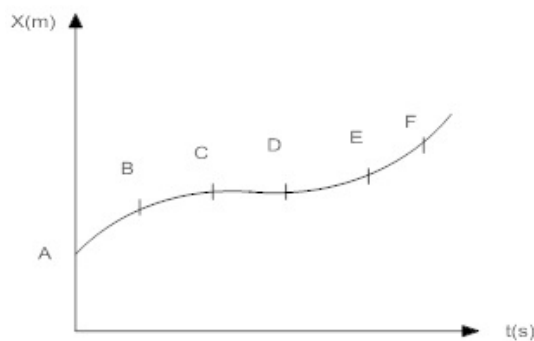
Calculate the - **(3)**

- acceleration
- distance travelled and draw the graph.

12. An athlete completes one round of the circular track of diameter 200 m in 40 s. What will be the distance covered and the displacement at the end of 2 minutes 20 s? **(3)**

13. The velocity of a car is 18 ms^{-1} . Express this velocity in kmh^{-1} . **(3)**

14. The displacement - time graph for a body is given below. State whether the velocity and acceleration of the body in the region BC, CD, DE and EF are positive, negative or zero. **(5)**



15. Two stones are thrown vertically upwards simultaneously with their initial velocities u_1 and u_2 respectively. Prove that the heights reached by them would be in the ratio of $u_1^2 : u_2^2$ (Assume upward acceleration is $-g$ and downward acceleration to be $+g$). **(5)**