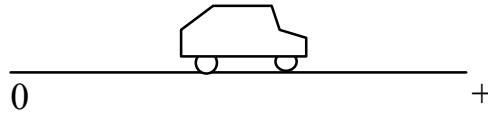


## MOTION CONCEPTUAL EVALUATION

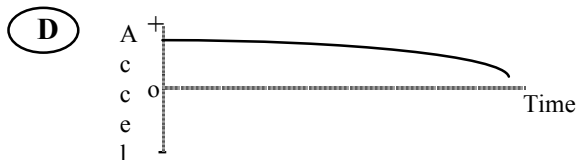
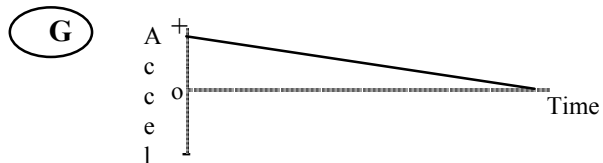
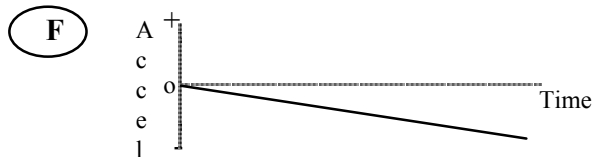
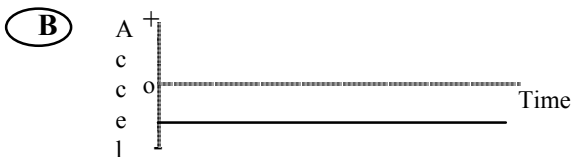
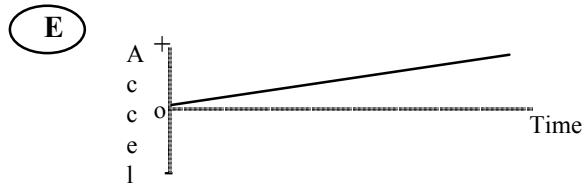
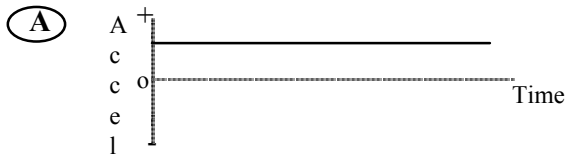
**Directions:** Answer questions 1-15 below.

Questions 1-5 refer to a toy car which can move to the right or left on a horizontal surface along a straight line (the + distance axis). The positive direction is to the right.



Different motions of the car are described below. Choose the letter (**A** to **G**) of the **acceleration-time** graph which corresponds to the motion of the car described in each statement.

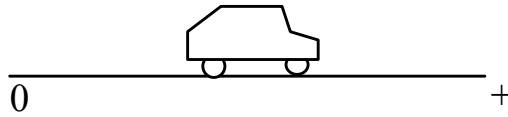
You may use a choice more than once or not at all. If you think that none is correct, answer choice **J**.



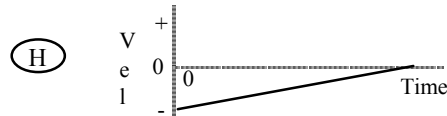
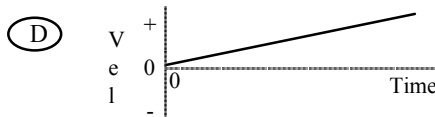
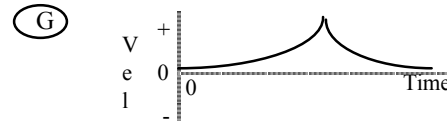
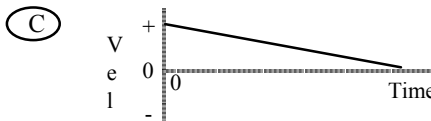
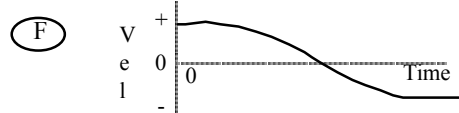
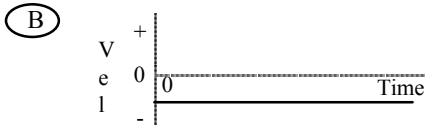
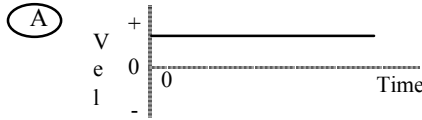
**(J)** None of these graphs is correct.

- \_\_\_ 1. The car moves toward the right (away from the origin), speeding up at a steady rate.
- \_\_\_ 2. The car moves toward the right, slowing down at a steady rate.
- \_\_\_ 3. The car moves toward the left (toward the origin) at a constant velocity.
- \_\_\_ 4. The car moves toward the left, speeding up at a steady rate.
- \_\_\_ 5. The car moves toward the right at a constant velocity.

Questions 6-9 refer to a toy car which can move to the right or left along a horizontal line (the positive portion of the distance axis). The positive direction is to the right.



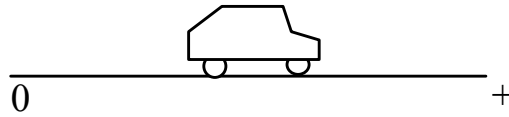
Choose the correct velocity-time graph (A - G) for each of the following questions. You may use a graph more than once or not at all. If you think that none is correct, answer choice J.



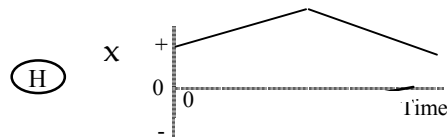
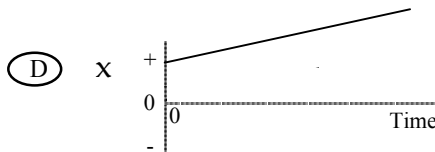
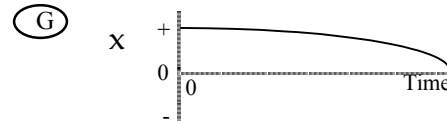
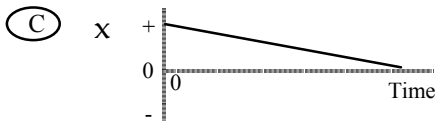
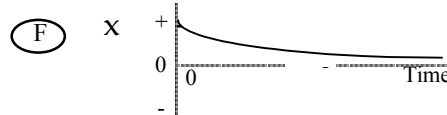
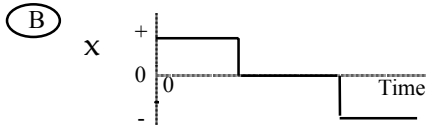
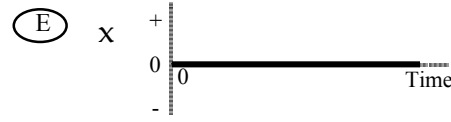
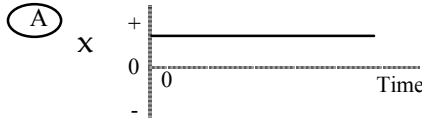
(J) None of these graphs is correct.

- \_\_\_ 6. Which velocity graph shows the car moving toward the right (away from the origin) at a steady (constant) velocity?
- \_\_\_ 7. Which velocity graph shows the car reversing direction?
- \_\_\_ 8. Which velocity graph shows the car moving toward the left (toward the origin) at a steady (constant) velocity?
- \_\_\_ 9. Which velocity graph shows the car increasing its *speed* at a steady (constant) rate?

Questions 10-15 refer to a toy car which can move to the right or left along a horizontal line (the positive portion of the distance axis). The positive direction is to the right.



Choose the correct distance-time graph (A - G) for each of the following questions. You may use a graph more than once or not at all. If you think that none is correct, answer choice J.



(J) None of these graphs is correct.

- \_\_\_ 10. Which graph shows the car moving toward the right (away from the origin) at a steady (constant) velocity?
- \_\_\_ 11. Which graph shows the car reversing direction?
- \_\_\_ 12. Which graph shows the car moving toward the left (toward the origin) at a steady (constant) velocity?
- \_\_\_ 13. Which graph shows the car increasing its *speed* at a steady rate?
- \_\_\_ 14. Which graph shows the car starting from its initial spot (not the origin) and not moving?
- \_\_\_ 15. Which graph shows the car moving to the origin, turning around and moving back to the original position.