Science Worksheet Class VII
Time and Motion

1. Fill in the blanks:
   a. One of the most well known periodic motion is that of a _____.
   b. An object moving along a straight line with a constant speed is said to be in _____ motion.
   c. A curved distance-time graph represents _____ motion.
   d. Time is defined as the _____ between two events.

2. A school bus covers a distance of 7200m in 1800s . calculate its speed.

3. How can we determine the speed of an object from its distance-time graph?

4. Explain the factors on which the time period of a simple pendulum depends.

5. A car moves at a speed of 40 km/h for 15 minutes and then at a speed of 60 km/h for the next 15 minutes. Calculate the total distance covered by the car.

6. (i) Name two types of graphs other than line graphs.
   (ii) A body moves along a path. Its distance-time graph is shown below. How much time will it take to cover 100 km distance?

7. (a) Draw the shapes of distance-time graphs for the motion in the following cases:
   1. a dog running at a constant speed.
   2. a stationary table
   3. a car moving with non-uniform speed

8. Which of the two is moving faster
   (a) A car going over a distance of 100 km in 5 hours, or
   (b) A train covering a distance of 300 km in 6 hours?

9. (i) Why do we need to measure time?
   (ii) A dog runs behind you for 30 minutes and the distance covered by the dog is 3 km. What should be your minimum speed if dog was not able to bite you?

10. Calculate the time period of pendulum which oscillates 100 times in an hour.

11. Two boys ran in a race of 10 km. First boy ran with a constant speed 2 km/h for the whole race, while the second boy ran at 1 km/h for half of the race and at 5 km/h for the other half. Who won the race?

12. If one wants to change the time period of a pendulum, what should be done to do so?

13. What do mean by uniform motion? Draw a distance-time graph to show uniform motion.
14. Convert the following as directed-
    a. 3720 km/h to m/s
    b. 72 m/s to km/h
    c. 100 km/h to m/s
15. Calculate the speed of the object at points A and B? At which point the speed is higher?