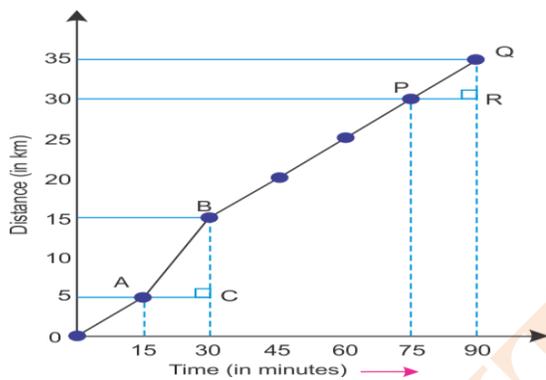
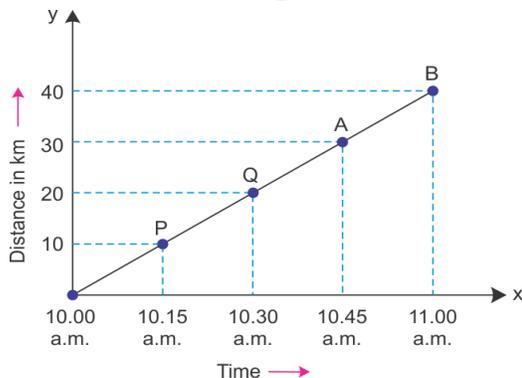


**Class: VII**  
**Subject: Physics**  
**Topic: Motion and time**  
**No. of Qs: 20**

- Q 1. (i) If 1 cm on a time axis shows 1 min. How many cms will show 1 hour on the axis?
- (ii) Find out the points from the graph where the motion can be uniform from point to point (considering object is travelling in a straight line).

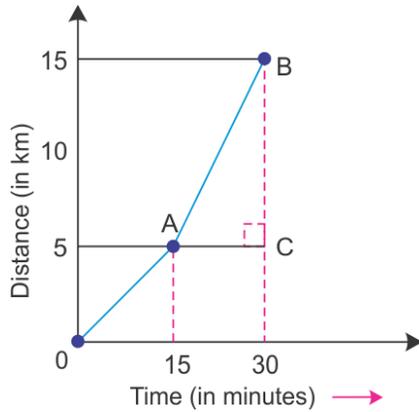


- Q 2. Name some of the instruments used in earlier times to measure time.
- Q 3. 1 cm on time axis on a distance-time graph denotes 1 hour. What is the time taken by a car whose graph shows reading 4.5 cm to cover a particular distance?
- Q 4. Calculate the speed of the object at points A and B? At which point the speed is higher?

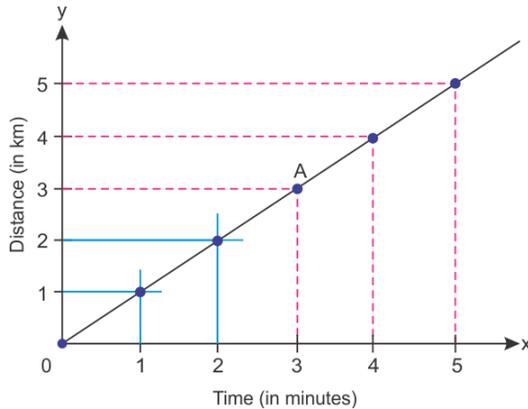


- Q 5. What do you understand by uniform motion? Give some examples of uniform motion?

- Q 6. Calculate the speed of the car between points (i) A and origin and (ii) A and B whose distance-time graph is given below.



- Q 7. Name one of the biggest pendulum clocks in the world. Where is it located? How long is its pendulum and what is its time period?
- Q 8. Why do we take average speed into consideration while calculating distance covered or time taken?
- Q 9. Show the shape of the distance-time graph for the motion in the following cases:
- (i) A bike moving with a constant speed.
  - (ii) A car parked on a road side.
  - (ii) A car parked on a road side:
- Q 10. Your car moves with a speed of 40 km/h for 10 minutes and then with a speed of 60 km/h for the next 15 minutes. What is the total distance covered by the car?
- Q 11. Find the speed of the car in km/hr between points O and A.

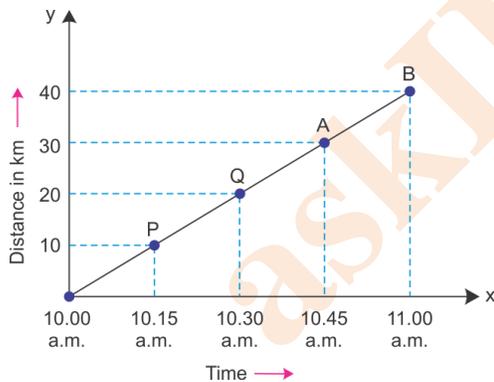


Q 12. What are the common units used to measure time?

Q 13. What is the definition of time? What is its necessity?

Q 14. (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?



Q 15. (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

(b) Fill in the blanks:

1. One of the most well known periodic motion is that of a \_\_\_\_\_.

2. An object moving along a straight line with a constant speed is said to be in \_\_\_\_\_ motion.

- Q 16. 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?
- Q 17. (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?
- Q 18. Calculate the time period of pendulum which oscillates 100 times in an hour.
- Q 19. 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?
- Q 20. If one wants to change the time period of a pendulum, what should be done to do so?