

Question Bank

Grade 7- Science

Chapter 13 - Time and Motion

Answer the following questions:

- **<u>1.</u>** Can we calculate the speed without knowing the distance?
- **<u>2.</u>** Mention the relation between speed, distance and time.
- **<u>3.</u>** If a car is moving at a speed of 1800 km/h, what is its speed? Represent in the SI unit.
- **<u>4.</u>** Akshat is driving from Bangalore to Mumbai. He wants to find out how much distance he has covered. Which instrument will tell him the distance covered?
- 5. What are the methods to represent a data visually?
- 6. What is the reference point on a graph?
- **7.** Name the device in the picture and label its mean position and length.



- 8. Convert 160 km/h into m/s
- <u>9.</u> What do you understand by average speed? Mention its unit and formula.

10. A bus travels 200 m in 30 seconds. What is its speed in km/h?

11. Rahul is driving a bicycle in a park which is circular in shape having a radius of 210 m. He noticed that it took 90 seconds to complete 3 rounds of the park. Find his average speed.

- 12. If Boojho covers a certain distance in one hour and Paheli covers the same distance in two hours, who travels with a higher speed?
- 13. State the characteristic of distance-time graph for the motion of an object moving with a constant speed.
- 14. Briefly explain how will decide which object is moving fast and which one is moving slow.
- 15. If you did not have a clock, how would you decide what time of the day is?
- 16. Estimate that how many hours are there in a year.
- 17. A spaceship travels 36000 km in one hour.Express its speed in km/s.
- 18. Out of the two given clocks, a pendulum clock or a quartz clock. Mention which of the clock between the given ones requires an electric cell for its working?

19. Briefly mention how many types of motion are there. Also, name all of them.

20. The average age of children of class VII is 12 years and 3 months. Express this age in second.

21. Starting from A, Paheli moves along a rectangular path ABCD as shown in figure. She takes 2 min to travel each side. Plot a distance-time graph and explain whether the motion is uniform or non-uniform.



22. The following figure shows the distance-time graph for the motion of two objects D and E. Which one of them is moving slower?



- 23. Given below as a figure is the distance-time graph of the motion of
 - (a) What will be the position of the object at 20 s?
 - (b) What will be the distance travelled by the object in 12 s?

(c) What is the average speed of the object?



24. Distance between Bholu's and Golu's house is 9 km. Bholu has to attend Golu's birthday party at 7 O' clock. He started his journey from his home at 6 O' clock on his bicycle and covered a distance of 6 km in 40 min. At that point, he met Chintu and he spoke to him for 5 min and reached Golu's birthday party at 7 O' clock. With what speed, did he cover the second part of the journey? Calculate-his average speed for the entire journey