# Motion theory test

1. Why circular motion is always accelerated?
2. Under what condition the average velocity is equal to the average speed of the body?
3. Derive velocity distance equation
4. The minute hand of a clock is 7 cm long. Find the distance and displacement covered by it from 9 am to 9 30 am.
5. Name the physical quantity that remains constant during circular motion.
6. Convert into SI 20m/min, 54km/hr, 16m/s into km/hr
7. Why displacement is lesser than distance?
8. Differentiate between circular and linear motion
9. Name the physical quantity derived from v-t graph
10. Give example of a) motion is uniformly accelerated

    b) motion is nonuniformly accelerated

    11. differentiate between uniform and non -uniform motion

    12. what is the use of speedometer and odometer

    13. draw the graph and identify

| Time(s) | 5 | 10 | 15 | 20 | 25 |
|---|---|---|---|---|---|
| Distance (m) | 10 | 20 | 30 | 40 | 50 |

14. if you are moving 30km on 2 hours and 15km in one hour then what type of graph represents that?

    15. what type of motion is exhibited by pendulum?

    16. all motions are relative in nature. Justify.

    17. is it possible that the train in which you are sitting appears to move while it is at rest?

    18. write down the equation of distance time

    19. define acceleration.

    20. when a body said to have uniform velocity?

    21. the following table gives the data about motion of a car. Plot the graph

| Time(h) | 11 | 11:30 | 12 | 12:30 | 1 |
|---|---|---|---|---|---|
| Distance(km) | 0 | 30 | 30 | 65 | 100 |

a) Find the speed of the car between 12 and 12:30

b) What is the average speed of the car?

c) Is the car's motion an example of uniform motion?

    22. what is the physical quantity we get from the area of velocity time graph?

23. give example of two vector quantities?

24. what is the reference point?

25. an object is thrown upward direction to a height of h. it is falling back. What is the total distance and displacement?

26.Differentiate between average speed and average velocity

27. derive distance time equation or distance speed equation