1. Suppose a ball is thrown vertically upwards from a position x above the ground. It rises to the highest point Y and returns to the same point X. What is the net displacement and distance travelled by the ball?
2. Which speed is greater: 50 m/s or 50 km/h?
3. What do you mean by 5 meter per second square?
4. What do you mean by average speed? What are its units?
5. What is the difference between uniform velocity and non-uniform velocity?
6. (a) Differentiate between distance and displacement.

(b) What are the uses of a distance-time graph?

(c) What indicates the motion of the earth?

1. Can the displacement be greater than the distance travelled by an object?
2. When do the distance and displacement of a moving object have the same magnitude?
3. When is the acceleration taken as negative?
4. What is uniform acceleration? Give an example of non-uniform acceleration.
5. What would be acceleration of a body if its velocity-time graph is a line parallel to the time axis?
6. How will the equations of motion for an object moving with uniform velocity change?
7. Express average velocity when the velocity of a body changes at a non-uniform rate and a uniform rate.
8. A particle is moving in a circular path of radius r. What woul be the displacement after half a circle?
9. Differentiate between distance and displacement.
10. Draw a velocity versus time graph of a stone thrown vertically upwards and then coming downwards after attaining the maximum height.
11. What are the characteristics of distance-time graph for an object moving with a non-uniform speed?
12. With the help of a graph, derive the relation (i)v = ut + at. (ii) S = ut +1/2atsq
13. Deduce the following equations of motion:
14. A body starts to slide over a horizontal surface with an initial velocity of 0.5 m/s. Due to friction,its velocity decreases at the rate 0.05 meter per second square. How much time will it take for the body to stop?
15. A body travels along a circular path of radius 70m. After traveling half a revolution in 20 s,find the (i) average velocity,(ii) average speed.
16. A motorcyclist drives from A to B with a uniform speed of 30 km per hour and returns back with a speed of 20 km per hour . Find its average speed.
17. Write full form of (i) S I, (II) CGS, (III) FPS, and (iv) MKS Unit.

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