SUBJECT:-PHYSICS
CHAPTER:-MOTION

TOPIC : Revision Assignment

GUIDELINES FOR STUDENTS:

Dear students,

- o There is only one assignment given below:
  - ➢ Assignment 10: Revision assignment (Motion)
- o Solve the assignment in a separate Physics notebook
- o Read NCERT too for better understanding of these concepts

NCERT LINK FOR THE CHAPTER:

 http://ncert.nic.in/textbook/textbook.htm?iesc1=8-15

SUBTOPICS: 1. Distance and displacement

2. Speed and velocity

3. Acceleration

4. Uses of graphs in describing motion of an object.

ASSIGNMENT 10

1. Draw the following graphs :

a) Distance time graph for uniform motion
b) Distance time graph for non- uniform motion
c) Distance time graph for a body at rest
d) Speed time graph for a body at rest
e) Velocity time graph for uniform acceleration
f) Speed time graph for uniform motion

2. A train is accelerated from 20km/hr to 80km/hr in 4 minutes. Plot its v-t graph. Calculate its acceleration. How much distance does it cover in this period? Assume that the tracks are straight.

3. Name the physical quantities measured by the following:
a) Slope of Distance Time graph _____
b) Slope of Velocity Time graph _____
c) Area under Velocity Time graph _____

4. The Velocity-Time graph (Fig. 8.5) shows the motion of a cyclist. Find (i) his acceleration (ii) his velocity and (iii) the distance covered by the cyclist in 15 seconds.
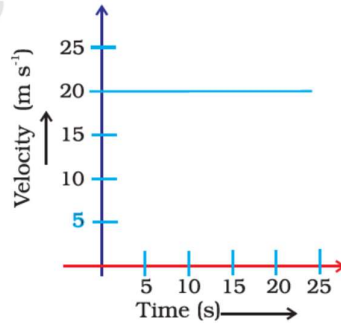
5. Give an example each of a body under positive acceleration and a body under negative acceleration.

6. Can the average speed of a moving object be zero? Explain.

7. Can an object be accelerated if it is moving at a constant speed? Justify. A particle is moving with a uniform speed. Is it necessary that it is moving along a straight line?

8. A particle is moving with a uniform velocity. Is it necessary that it is moving along a straight line?

9. A bus moves at a uniform speed v_1 for some time and then with a uniform speed v_2. The distance-time table is given below. Plot the corresponding Distance-Time graph and answer the following questions.

Time(min):   0 20 40 60 80 100 120

Distance(km):0 20 40 65 95 125 155

(a) Find the values of v_1, v_2

(b) When did the bus change its speed?

(c) What is the distance covered in the first hour?

(d) What is the distance covered in the second hour?

(e) What is the average speed for the complete journey?

10.   A boy leaves his house at 9:30 am for his school. The school is 2 km away and classes start at 10:00 am. If he walks at a speed of 3km/h for the first km, at what speed should he walk the second km to reach just in time?

STAY HOME   STAY SAFE