KALPAVRUKSHA MODEL SCHOOL

Answers of Assignments-6

Class: VII **Sub: Physics** **Date: 28.6.2021**

Topic: TIME AND MOTION

I. Answers:

1. **With the help of the speedometer reading of a vehicle, would you be able to find the distance travelled, if the time is known?**
   ANS: Yes, we can find the distance of a vehicle using a speedometer.
   To calculate distance travelled by vehicle by using formula
   Speed =Distance travelled/time taken

2. **What is the scalar quantity?**
   ANS: Physical quantities having only magnitude and not having direction.

3. **What is a graph?**
   ANS: A pictorial representation of two variables in the form of a straight line or curved line of which one varies as a result of changes in the other variable is called graph.

4. (**a) Speedometer**- The instrument measuring the speed of the vehicle is called a speedometer.
   (**b) Odometer**- The instrument measuring the distance travelled by the vehicle is called an odometer.

5. **A bus covers a distance from A to B at 100 km/h and while returning it travels at 60 km/h. calculate the average speed?**
   ANS: A bus covers a distance from A to B at 100 km/h and while returning it travels at 60 km/h.
   Average speed=Total distance travelled/Total time taken
   =100+60/1+1
   =160/2
   =80Km/hr.

6. **If a car is moving with a speed of 5 km/h on a highway, find the distance travelled by the car in 3 hours?**

ANS: given car is moving with a speed of 5 km/h on a highway in 3hours
Speed =Distance travelled/time taken
Distance travelled=Speed x time taken
=5x3
=15 km.

7. **If a car is moving with a speed of 10 km/h on a road. Find the distance travelled by the car in 5 hours?**

ANS: given car is moving with a speed of 10 km/h on a highway in 5 hours
Speed =Distance travelled/time taken
Distance travelled=Speed x time taken
=10x5
=50 km.

8. **Convert the following as directed**.

I.3720 seconds into minutes

Solution: 1minute =60 second
1second=1/60 minutes
3720 seconds=3720/60 minutes
= 62 minutes. .

ii. 24 hours into seconds

solution: 1hr=60 minutes
1min=60seconds
1 hr=60×60 =3600seconds
24 hrs=24×3600=86400seconds.

iii. 1 year into hours

solution:1yr=365days
1day=24 hours
365days=365×24=8760hrs.

9. **What is the average speed?**

ANS: Average speed is defined as the total distance travelled divided by the total time taken to travel that distance.

10. **How will you convert one solar day into seconds?**

ANS: 1 solar day = 24 hrs = 24 x 60 min
= 24 x 60 x 60 sec = 86,400 sec.