**Aarambh Classes**

**Class IX**

**PHYSICS WORKSHEET**

**Motion**

1. A bus covers a distance of 250 km from delhi to Jaipur towrads west in 5 hours in the morning and returns to delhi in the evening covering the same distance of 250 km in the same time of 5 hours .Find (a) average speed ,and (b)average velocity of the bus for the whole journey .
2. A driver decreases the speed of a car from 25m/s to 10 m/s in 5 seconds .Find the acceleration of the car.
3. What type of motion,uniform or non uniform , is exhibited by a freely falling body?Give reason for your answer.
4. What is the difference between speed and velocity ?Convert a speed of 54 km/h into m/s .
5. A train travels the first 15 km at a uniform speed of 30 km//h ;thenext 75 km at a uniform speed of 50 km/h and the last 10 km at a uniform speed of 20 km/h .Calculate the average speed for the entire train journey .
6. A body is moving along a circular path of radius R .What will be the distance travelled and displacement of the body when it completes half a revolution ?
7. A body travels a distance oof 3 km towards East ,the 4 km towards North and finally 9 km towards East .

(I)What is the total distance travelled ?

(ii) What is the resultant displacement ?

8. A scooter moving at aspeeed of 10 m/s is stopped by applying brakes which produce a uniform acceleration of –0.5 m/s.How much distance will be covered by the scooter before it stops ?

9. A cyclist goes around a circular track once every 2 minutes .If the radius of the circular track is 105 metres ,calculate his speed .

10. Derive the formula s= ut+at,where the symbols have their usual meanings .