(a) 1250 m (b) 875 m (c) 1500 m (d) 870 m

9. A car of mass 1000 kg is moving with a velocity of 10 m/s. If the velocity-time graph for this car is a horizontal line parallel to the time axis, then the velocity of the car at the end of 25 s will be:

(a) 40 m/s (b) 25 m/s (c) 10 m/s (d) 250 m/s

10. Which of the following is most likely not a case of uniform circular motion?

(a) Motion of the earth around the sun
(b) Motion of a toy train on a circular track
(c) Motion of a racing car on a circular track
(d) Motion of hours' hand on the dial of a clock

11. In which of the following cases of motions, the distance moved and the magnitude of the displacement are equal?

i. If the car is moving on a straight road
ii. If the car is moving in circular path
iii. The pendulum is moving to and fro
iv. The earth is moving around the sun

(a) only(ii) (b) (i) and (iii) (c) (ii) and (iv) (d) only (i)

12. A car is travelling at a speed of 90 km/h. Brakes are applied so as to produce a uniform acceleration of – 0.5 m/s^2. Find how far the car will go before it is brought to rest?

(a) 8100 m (b) 900 m (c) 625 m (d) 620 m

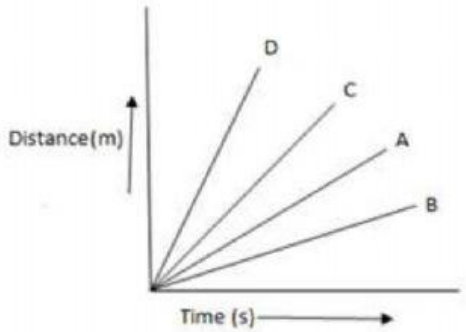
13. In a free fall the velocity of a stone is increasing equally ion equal intervals of time under the effect of gravitational force of the earth. Then what can you say about the motion of this stone? Whether the stone is having:

(a) Uniform acceleration (b) Non-uniform acceleration
(c) Retardation (d) Constant speed

14. The numerical ratio of displacement to distance for a moving object is:

(a) Always less than 1 (b) Equal to 1 or less than 1
(c) Always more than 1 (d) Equal to 1 or more than one

15. Four cars A, B, C and D are moving on a levelled, straight road. Their distance time graphs are shown in the figure below. Which of the following is the correct statement regarding the motion of these cars?



(a) Car A is faster than car D (b) Car B is the slowest
(c) Car D is faster than car C (d) Car C is the slowest