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CHAPTER-MOTION

GWPP-03

CLASS-IX **SUBJECT-SCIENCE**

1. Which of the following statements is correct? [1]

(a) Both speed and velocity are same

(b) Speed is a scalar and velocity is a vector

(c) Speed is a vector and velocity is scalar

(d) None of these

2. What is the slope of the body when it moves with uniform velocity? [1]

(a) Positive

(b) Negative

(c) Zero

(d) May be positive or negative

3. Draw the Distance time graph for a body at rest? [1]

4. What does area velocity time graph give?

(a) Distance

(b) Acceleration

(c) Displacement

(d) None of the above [1]

5. Differentiate between distance and displacement? [2]

6. Derive mathematically the first equation of motion V=u + at? [2]

7. Calculate the acceleration of a body which starts from rest and travels 87.5 m sec [2]

8. Define uniform velocity and uniform acceleration? [2]

9. Derive the second equation of motion $S= ut +1/2at^2$ graphically? [3]

10. A car moving with a certain velocity comes to a halt if the retardation was $5m/s^2$,find the initial velocity of the car? [3]

11. Two cars A and B are moving along in a straight line. Car A is moving at a speed of 80 KMph while car B is moving at a speed 50 KMph in the same direction, find the magnitude and direction of

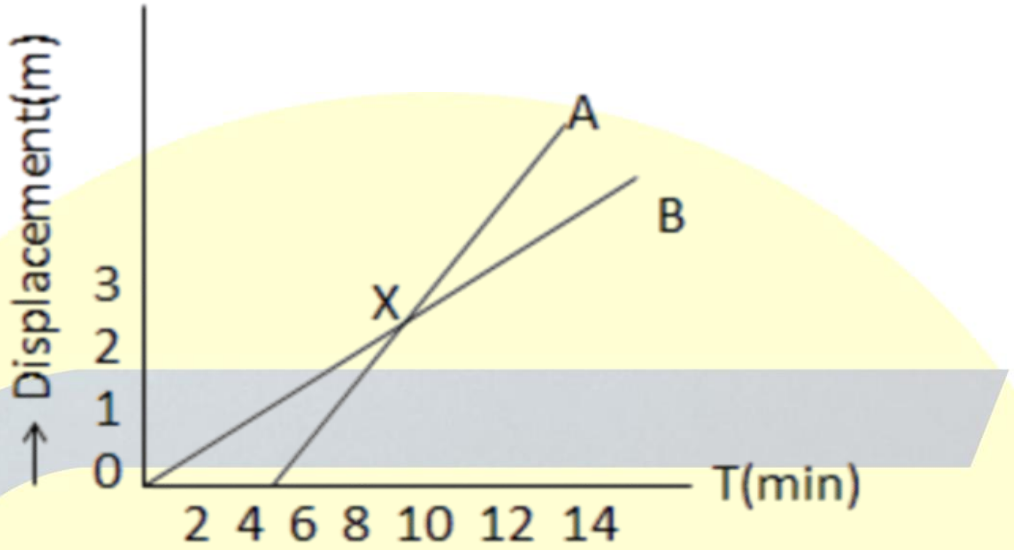
(a) the relative velocity of car A with respect to B (b) The relative velocity of car B with respect to A. [3]

12. A ball starts from rest and rolls down 16m down an inclined plane in 4 s.

(a) What is the acceleration of the ball?

(b) What is the velocity of the ball at the bottom of the incline? [3]

13. Two boys A and B, travel along the same path. The displacement – time graph for their journey is given in the following figure.



(a) How far down the road has B travelled when A starts the journey?

(b)Without calculation, the speed, state who is traveling faster A or B?

(c) What is the speed of A?

(d)What is the speed of B?

(e) Are the speed of A and B uniform?

(f) What dose point X on the graph represent?

(g) What is the speed of approach of A towards B?

(h)What is the speed of separation of A from B? [5]