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Class 11Sc Sub Physics(Unit 3) Date 13 09 XX

Dear Students, Today you have to give answer of some questions given below:-

1 A body starts from rest and acquires a velocity of 12 m/s in 5 s. Calculate the distance covered by the moving body.

2 A body moving with uniform acceleration describes 20 m in 2nd second and 30 m in 4th second of its motion. Calculate the distance moved by it in 6th second.

3 Find the ratio of the distances travelled by a freely falling body in first, second and third second of its fall.

4 A particle located at $X = 0$ at $t = 0$ starts moving along the positive x-direction with a velocity $v = K \sqrt{X}$. How the displacement of the particle vary with time?

5 MCQs :-

A A body completes a semicircle of radius 7 m in 5 s. The distance travelled by body is

a 7m b 10m c 11 m d 22 m

B Area under speed-time graph measures

a distance b acceleration c speed d none

C Out of the following which can not be negative?

a Total path length b Velocity c acceleration

D A body travels from A to B 40 m/s and then B to A at 60 m/s. Its net displacement will be

a 48 m b 0 m c 60 m d none of these

E A particle is moving along X-axis. The position of the particle at any instant is given by $X = 5 + 6t^2$, where X in metres, t in second. The velocity of particle at any instant is

a 5 m/s b 10 m/s c 12 m/s d 25 m/s