

10/5/21 Index = Speed Uniform Motion Non-Uniform Motion

Speed =

The speed of a moving body is defined as the distance travelled by the body in unit time i.e.

$$\text{Speed} = \frac{\text{Distance travelled}}{\text{Time taken}}$$

$$v = \frac{d}{t}$$

The S.I. unit of speed is metre per second (symbol $m s^{-1}$).

Uniform Motion =

If a moving body travels equal distances in equal intervals of time, its motion is said to be uniform. Thus for a uniform motion, the speed of the moving body remains constant.

Non-Uniform Motion =

If a moving body travels unequal distances in equal intervals of time, its motion is said to be non-uniform.

H.W

and answer

Do book question, = B = 17 and 18

Q17

Distinguish motions, g

ans =

1)

Uniform

If a moving body travels equal distances in equal intervals of time, its motion is said to be uniform. In a uniform motion, the speed of the body remains constant.

2)

Ex = a car moving at 20 km/h in a straight line.

Q18

How do you calculate the average speed of a body in uniform motion?

ans =

The average speed is the total distance travelled divided by the total time taken for the journey.

Average

Q17 Distinguish between uniform and non-uniform motions, giving an example of each.

ans: Uniform Motion | Non-Uniform Motion

1) If a moving body travels equal distances in equal interval of time, its motion is said to be uniform. Thus for a uniform motion, the speed of the moving body remains constant.

When a body covers unequal distance in equal intervals of time in straight line is called non-uniform.

2) Ex = a car moving at 20 km/h in a straight line.

Ex = spinning wheel

Q18 How do you determine the average speed of a body in ~~an~~ non-uniform motion?

ans: The average speed is calculated by finding the ratio of the total distance travelled by the body to the total time taken in the journey, i.e.

$$\text{Average speed} = \frac{\text{Total distance travelled}}{\text{Total time taken}}$$