

MOTION

- 6) In rotatory motion, the axis of rotation passes from a point in the body itself whereas in circular motion, the axis of revolution passes through a point outside the body.
- 7) A motion which gets repeated after a regular interval of time is called a periodic motion while the motion which does not repeat itself after a regular interval of time is called non-periodic motion.
- 8) The weight of a body is the force with which earth attracts the body. The S.I. unit of weight is newton.

$$9) \quad \text{Total distance travelled} = 30\text{m} + 30\text{m} \\ = 60\text{m}$$

$$\text{Total time travelled} = 1\text{min} + (1.5\text{min}) \\ = 60\text{sec} + (60 + 30)\text{sec} \\ = 60\text{s} + 90\text{s} \\ = 150\text{s}$$

$$\text{Average speed } v = \frac{\text{Distance travelled (D)}}{\text{Time taken (t)}}$$

$$\Rightarrow v = \frac{D}{t} = \frac{60\text{m}}{150\text{s}} = \frac{2\text{m}}{5\text{s}} \\ = 0.4\text{ms}^{-1}$$