Question

Consider a planet moving in an elliptical orbit round the sun. The work done on the planet by the gravitational force of the sun

A   is zero in any small part of the orbit.

B   is zero in some parts of the orbit.

C   is zero in one complete revolution.

D   is zero in no part of the motion.

Solution

Correct option is B)

The work done is zero at points A and B, since the force acts along the AB axis and the motion is perpendicular to it($W = |F| \ |S| \cos\theta$)