7 The potential energy of a body when it is at point P a distance x from a reference point O is given by $U = kx^2$, where k is a constant.

What is the force acting on the body when it is at P?

A magnitude of $2kx$ from O to P

B magnitude of kx from O to P

C magnitude of kx from P to O

D magnitude of $2kx$ from P to O

8 A small sphere is set into circular motion in a horizontal plane within a smooth cone as shown