30 A beam of electrons with a speed 10^6 m s^{-1} is directed towards an aperture of diameter of 10^{-10} m. Due to the Heisenberg uncertainty principle, the transmitted electrons are observed to diffract within 1 m diameter on the screen.

What is the order of magnitude of the distance between the aperture and the screen?

A 10^{-2} m   B 10^{-1} m   C 10^0 m   D 10^1 m

End of Paper