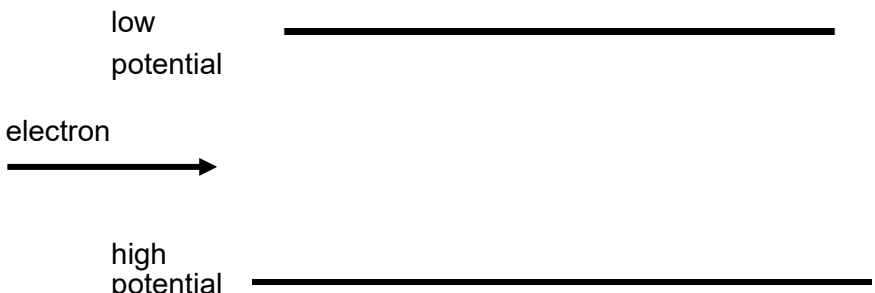
20 An electron is projected horizontally with a speed of 3.1 107 m s−1. It passes in between the two charged horizontal plates. The uniform electric field between the plates is 20000 N C−1. As theelectron passes through the plates, it is deflected. The time taken for the electron to travelthe length of the plate is 4.0 10−9 s.



What is the vertical distance travelled by the electron after it has travelled the length of the plate?

A 1.76 10−17 m **B** 7.85 10−17 m **C** 0.0281 m **D** 0.152 m