21 A copper wire of cross-sectional area 1.0 mm^2 carries a current of 0.30 A.

If the free electron density of copper is 8.5×10^{28} m^{-3}, what is the drift velocity of the electrons in the copper wire?

A 2.2×10^{-5} m s^{-1}

B 2.2×10^{-3} m s^{-1}

C 2.2×10^{-2} m s^{-1}

D 2.2×10^{-1} m s^{-1}

22 A cell of e.m.f. 1.5 V of negligible internal resistance is connected in series with a lamp of resistance