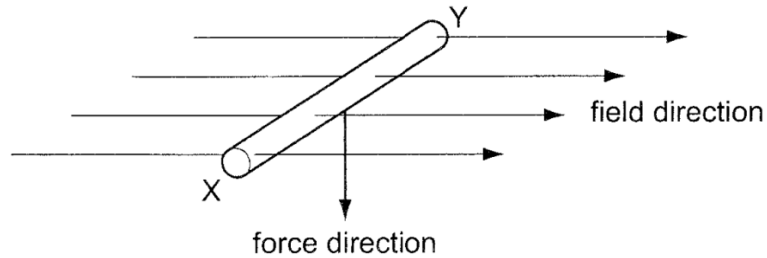24 A current-carrying conductor is placed at right angles to a uniform magnetic field of flux density 0.50 T. A 10 cm length of conductor lies within the field and experiences a force of 2.4 mN.

field direction

force direction

What is the direction of electron flow and rate of flow of electrons in the conductor?

	direction of electron flow	rate of flow of electrons / s
A	X to Y	4.8×10^{-2}
B	Y to X	4.8×10^{-2}
C	X to Y	3.0×10^{17}
D	Y to X	3.0×10^{17}