

Electromagnetism

Question Paper

Level	Pre U
Subject	Physics
Exam Board	Cambridge International Examinations
Topic	Electromagnetism
Booklet	Question Paper

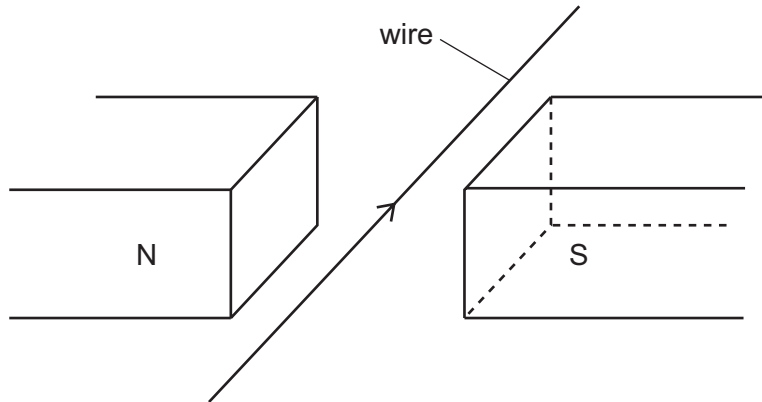
Time Allowed: 3 minutes

Score: /2

Percentage: /100

Grade Boundaries:

- 1 A horizontal, current-carrying wire is placed in the magnetic field between two opposite magnetic poles. The arrow on the diagram shows the direction of the current in the wire.



The wire experiences a force.

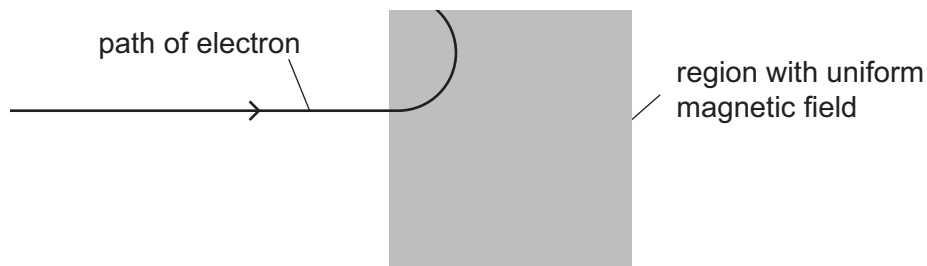
In which direction does this force act?

- A horizontally to the left
- B horizontally to the right
- C vertically downwards
- D vertically upwards

Space for working

- 2 An electron, travelling in a straight line at $1.46 \times 10^7 \text{ ms}^{-1}$, enters a region where there is a uniform magnetic field.

The diagram shows the path followed by the electron before it enters the magnetic field and within the field.



In the magnetic field, the electron follows a semi-circular path of diameter 0.0700 m.

In which direction is the magnetic field and what is the size of the magnetic flux density?

	direction of magnetic field	size of magnetic flux density / T
A	into page	1.19×10^{-3}
B	into page	2.38×10^{-3}
C	out of page	1.19×10^{-3}
D	out of page	2.38×10^{-3}

Space for working