

- 23 A rectangular coil moves in a direction parallel to a long straight current-carrying conductor as shown below.



long conductor with steady direct current

The conductor carries a steady direct current. Which of the following statements is true?

- A There is no induced current in the coil.
- B The induced current flows clockwise in the coil.
- C The magnitude of the induced current in the coil is proportional to $\frac{1}{\sqrt{2}}$.
- D The magnitude of the induced current in the coil varies with the speed at which the coil is moving.

