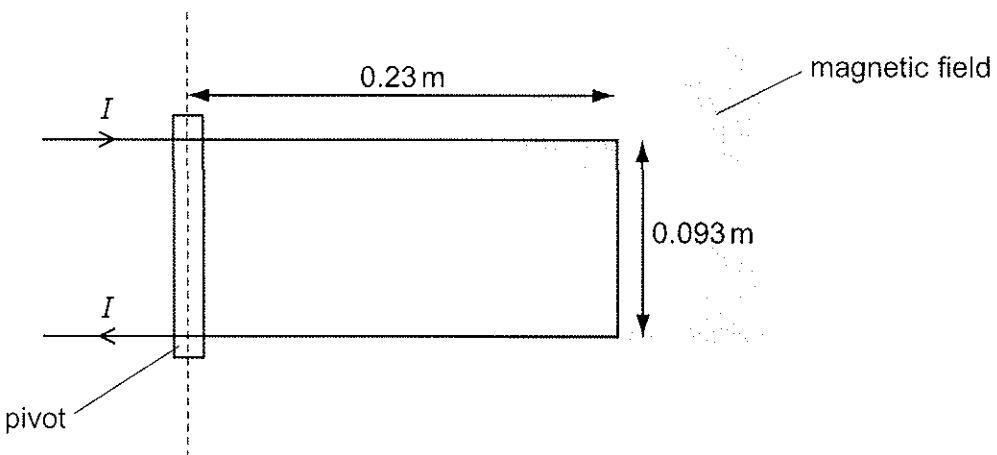


- 34 In order to determine the value of a current  $I$ , it is passed into a current balance. This consists of a U-shaped wire placed in a constant magnetic field of flux density  $3.6 \times 10^{-2}$  T. The U-shaped wire has length 0.23 m and the arms are 0.093 m apart, as shown in the diagram.



The U-shaped wire experiences a turning moment about the pivot of value  $7.4 \times 10^{-3}$  N m.

What is the value of  $I$ ?

- A 0.044 A      B 1.6 A      C 2.8 A      D 9.6 A