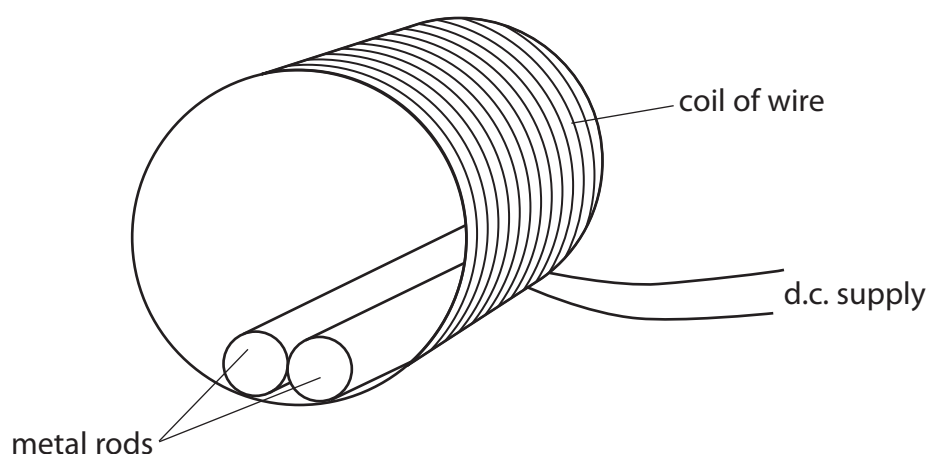


- 7 The diagram shows two identical metal rods placed inside a coil of wire.



- (a) When a direct current is supplied to the coil, a magnetic field forms and the metal rods move apart.

Explain why the metal rods move apart.

(2)

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- (b) When the current is switched off, the metal rods return to their starting places.

Suggest what material the metal rods are made from.

Explain your answer.

(3)

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(c) The direct current in the coil is replaced by an alternating current.

Explain what will happen to the magnetic field.

(2)

**(Total for Question 7 = 7 marks)**

