

Fig. 8.1

- (a) (i) Draw on Fig. 8.1 **four** complete magnetic field lines that show the pattern and direction of the magnetic field inside and outside the solenoid. [4]
- (ii) Mark a point inside the box in Fig. 8.1 where the magnetic field is strong. Label this point B.

Explain how the diagram shows that the magnetic field is strong at B.

explanation

..... [1]

- (b) Fig. 8.2 shows a solenoid in an electric circuit for a bell.

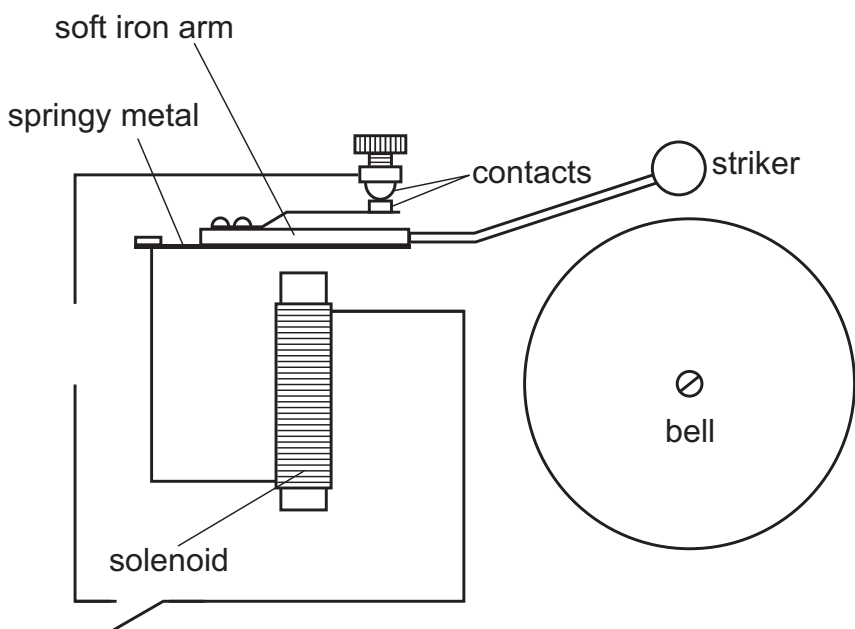


Fig. 8.2

- (i) Complete the circuit in Fig. 8.2 with the symbol for a direct current (d.c.) power supply. [1]
- (ii) Explain why the soft iron arm pivots, making the striker hit the bell when the switch is closed.

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..... [2]

- (iii) Explain why the arm pivots back to its original position after the striker hits the bell.

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..... [2]