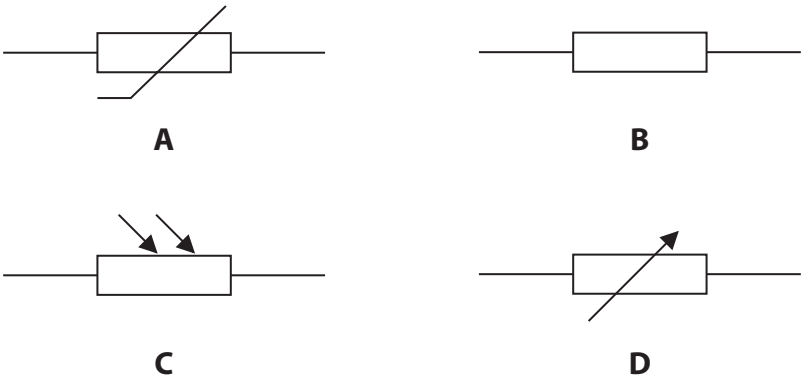
2 This question is about electricity.

(a) The diagram shows some electrical circuit symbols.



(i) Which symbol represents a light dependent resistor (LDR)?

(1)

☒ **A**

☒ **B**

☒ **C**

☒ **D**

(ii) Which symbol represents a fixed resistor?

(1)

☒ **A**

☒ **B**

☒ **C**

☒ **D**

(b) An electric heater connected to the mains supply has a power of 2200 W.

(i) State the equation linking power, current and voltage.

(1)

(ii) Show that the current in the electric heater is approximately 10 A.
[mains supply voltage = 230 V]

(2)

(iii) Which of these fuses should be used with the electric heater?

(1)

- ☒ **A** 3 A
- ☒ **B** 5 A
- ☒ **C** 7 A
- ☒ **D** 13 A

(iv) Explain how the fuse protects the electric heater when the current in the electric heater is too high.

(2)

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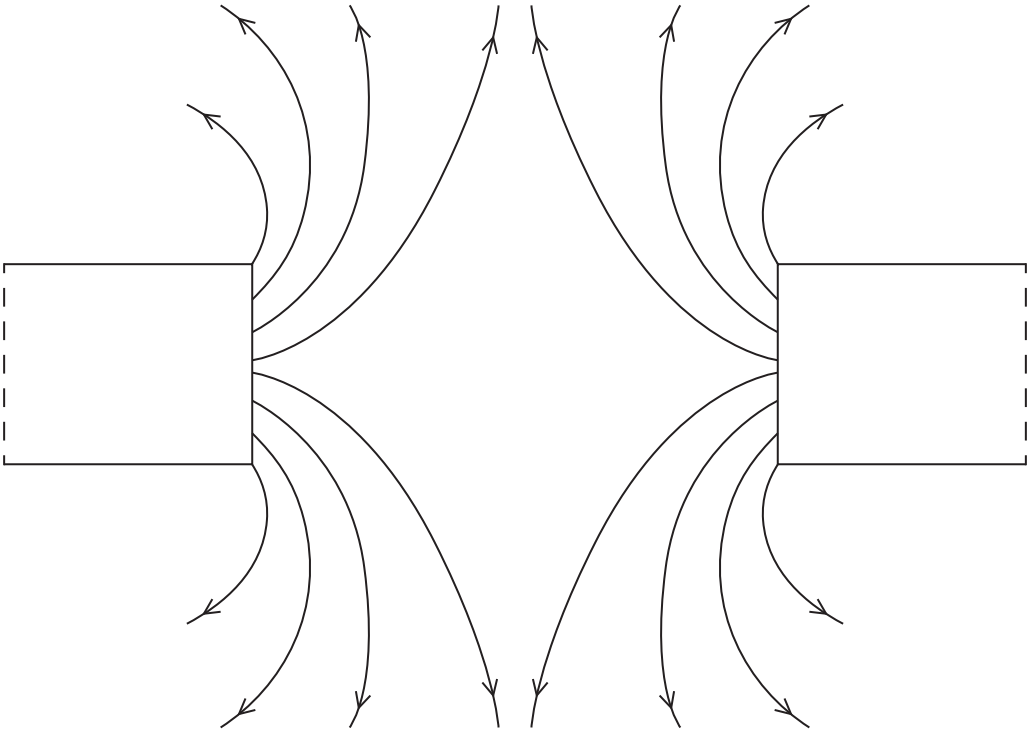
(Total for Question 2 = 8 marks)

3 The diagram shows the magnetic field between the poles of two bar magnets.

Only one end of each bar magnet is shown.



(a) Complete the diagram by labelling the poles on the bar magnets.

(2)