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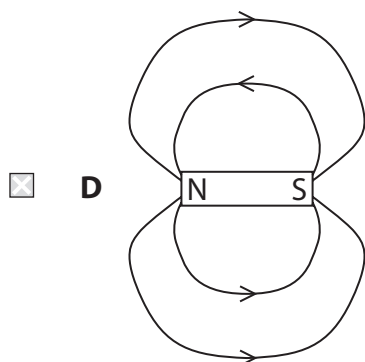
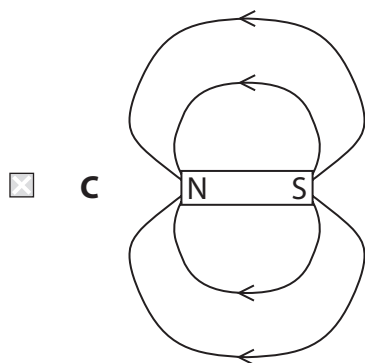
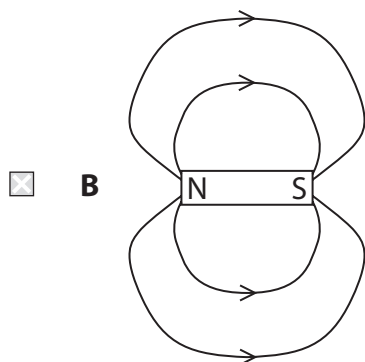
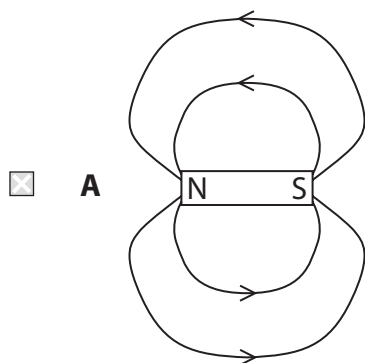
**Answer ALL questions.**

**Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.**

**1** The region of space around a magnet is known as a magnetic field.

(a) Which of these diagrams correctly represents the magnetic field around a bar magnet?

(1)



(b) The diagram shows two bar magnets placed close together.



(i) Which of these describes what happens to the two magnets?

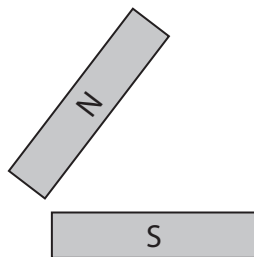
(1)

- ☐ **A** nothing happens
- ☐ **B** they attract
- ☐ **C** they repel
- ☐ **D** they spin



(ii) Which of these magnet arrangements gives a uniform field between the poles?

(1)



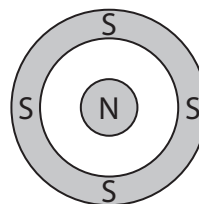
☐ A



☐ B



☐ C



☐ D

(c) State the name of a material that would be suitable for use as a permanent magnet.

(1)

.....



- (d) Describe an investigation that could be used to determine the shape of the magnetic field around a bar magnet.

(3)

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(Total for Question 1 = 7 marks)

