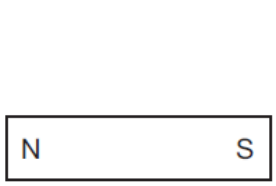
Magnetism – 2022 June IGCSE 0625

1. June/2022/Paper_11/No.26

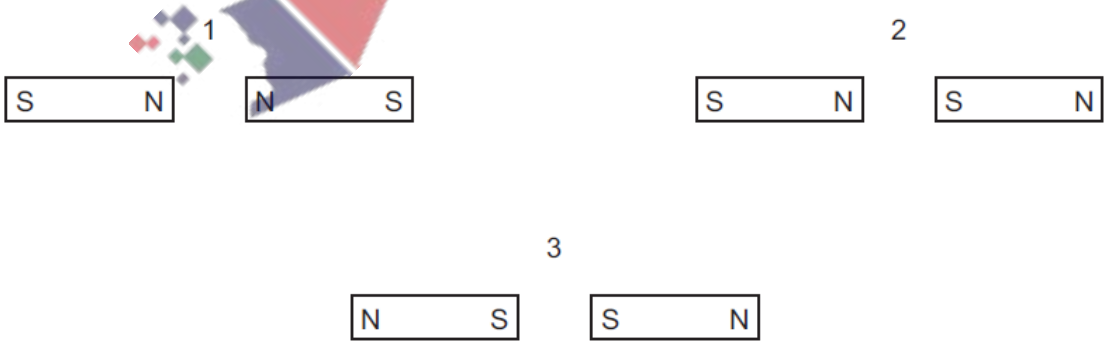
Point X is near to a bar magnet, as shown.



Which arrow indicates the direction of the magnetic field of the bar magnet at point X?

2. June/2022/Paper_12/No.26

The three diagrams each show two magnets.

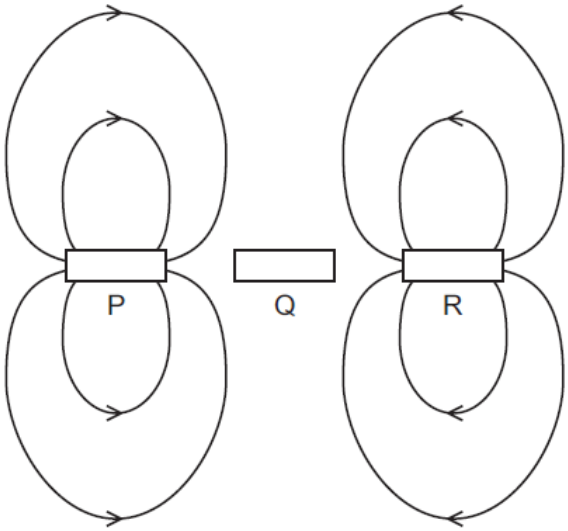


In which diagrams do the two magnets attract each other?

A 1 only **B** 1 and 3 **C** 2 only **D** 2 and 3

3. June/2022/Paper_12/No.27

The diagram shows the magnetic fields around three objects, P, Q and R, placed close to each other.



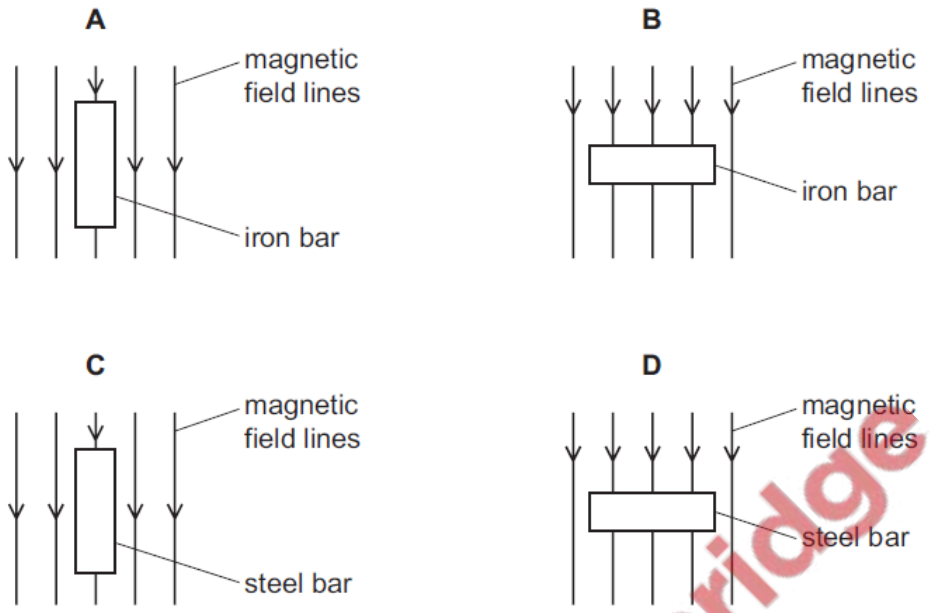
Which row shows the nature of each of the objects?

	P	Q	R
A	permanent magnet N S	copper rod	permanent magnet N S
B	permanent magnet N S	copper rod	permanent magnet S N
C	permanent magnet N S	iron rod	permanent magnet N S
D	permanent magnet N S	iron rod	permanent magnet S N

4. June/2022/Paper_13/No.26

A student attempts to make a permanent magnet by hammering metal bars of the same size in the same magnetic field.

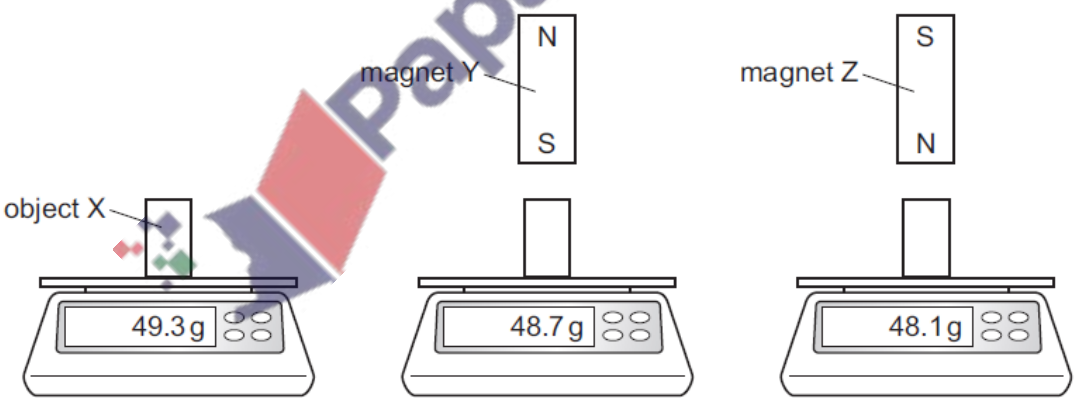
In which case is the strongest permanent magnet produced?



5. June/2022/Paper_13/No.27

A student places object X on a balance. The student first brings magnet Y and then magnet Z close to object X and observes the readings on the balance. The distance between Y and X is the same as the distance between Z and X.

The diagram shows the results of the experiment.



Which statement explains the results?

A Object X is an iron block and magnet Y is stronger than magnet Z.

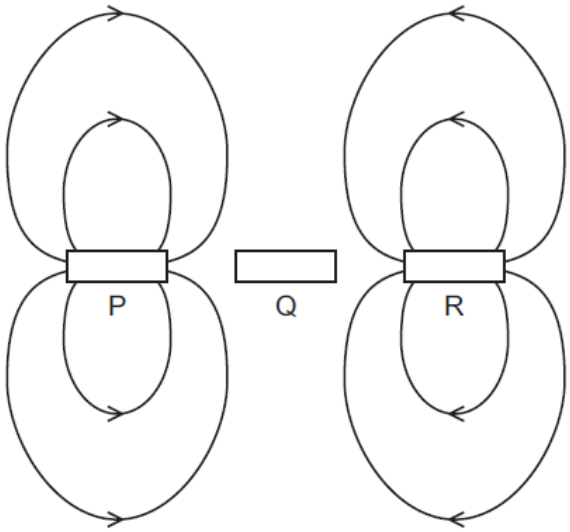
B Object X is an iron block and magnet Y is weaker than magnet Z.

C Object X is a permanent magnet and magnet Y is stronger than magnet Z.

D Object X is a permanent magnet and magnet Y is weaker than magnet Z.

6. June/2022/Paper_22/No.28

The diagram shows the magnetic fields around three objects, P, Q and R, placed close to each other.



Which row shows the nature of each of the objects?

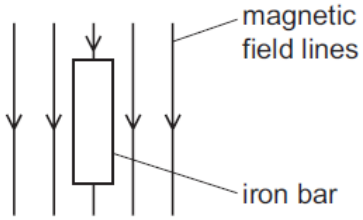
	P	Q	R
A	permanent magnet N S	copper rod	permanent magnet N S
B	permanent magnet N S	copper rod	permanent magnet S N
C	permanent magnet N S	iron rod	permanent magnet N S
D	permanent magnet N S	iron rod	permanent magnet S N

7. June/2022/Paper_23/No.28

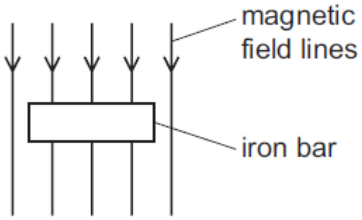
A student attempts to make a permanent magnet by hammering metal bars of the same size in the same magnetic field.

In which case is the strongest permanent magnet produced?

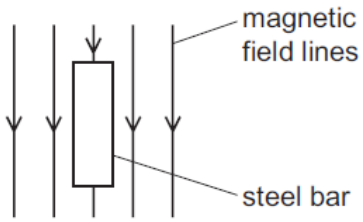
A



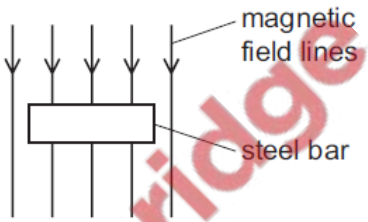
B



C



D



8. June/2022/Paper_31/No.8

(a) Fig. 8.1 shows a bar magnet on a piece of card.

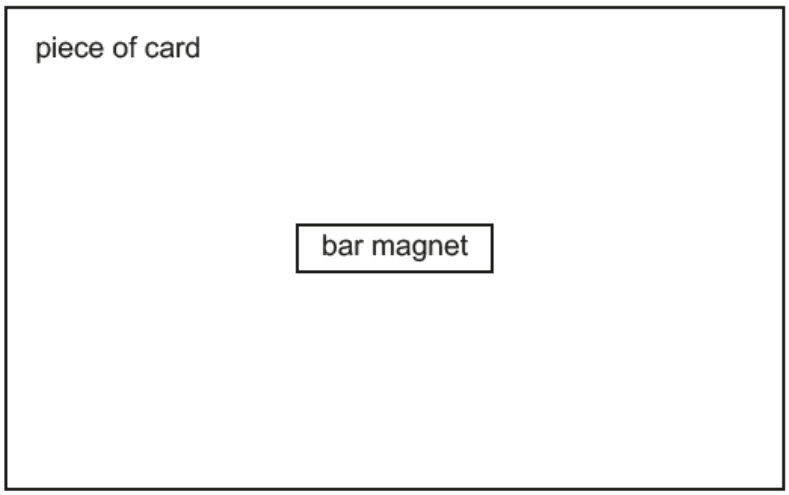


Fig. 8.1

Describe an experiment to determine the pattern of the magnetic field lines around the bar magnet.

You may draw on Fig. 8.1 if it helps to explain your answer.

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..... [3]

(b) A student has a bar magnet and a metal bar with ends labelled X and Y. The student moves the metal bar close to either pole of the bar magnet. Fig. 8.2 and Fig. 8.3 show the force on the metal bar in each case.

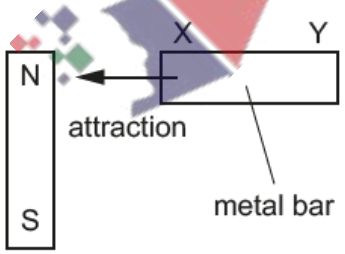

Fig. 8.2

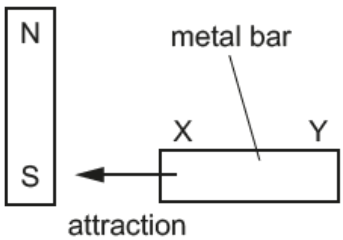

Fig. 8.3

State and explain what these results reveal about the metal bar XY.

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..... [3]

[Total: 6]

9. June/2022/Paper_32/No.8(a), (b)

(a) A student has a box containing objects made of different materials. The objects are:

aluminium foil **a silver ring** **an iron bar**

a plastic strip **a glass lens**

(i) State which objects are made of electrically insulating materials.

..... [1]

(ii) State which object is made of a magnetic material.

..... [1]

(b) Fig. 8.1 shows two magnets, X and Y. The magnets are attracting each other.

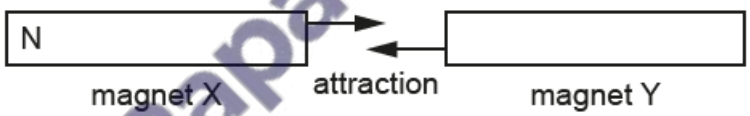

Fig. 8.1

On magnet X, the N pole is labelled N.

On Fig. 8.1, complete the labelling for the magnetic poles of each magnet. [1]