Magnetism – 2019 Nov

1. 0625/11/O/N/19/No.27

A student has a bar magnet. He brings the magnet close to an object. The magnet and the object repel each other.

What must the object be?

A another permanent magnet

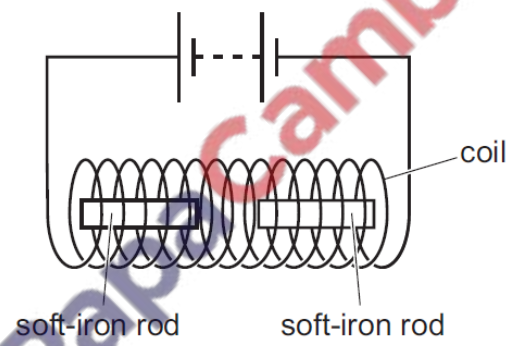
B any magnetic material

C a block of wood

D a piece of copper

2. 0625/11,12,13/O/N/19/No.28

Two soft-iron rods are placed end-to-end inside a coil. The coil is connected to a battery.



The connections from the battery to the coil are now reversed.

What happens to the soft-iron rods in each case?

	battery connections as shown	battery connections reversed
A	rods attract	rods attract
B	rods attract	rods repel
C	rods repel	rods attract
D	rods repel	rods repel

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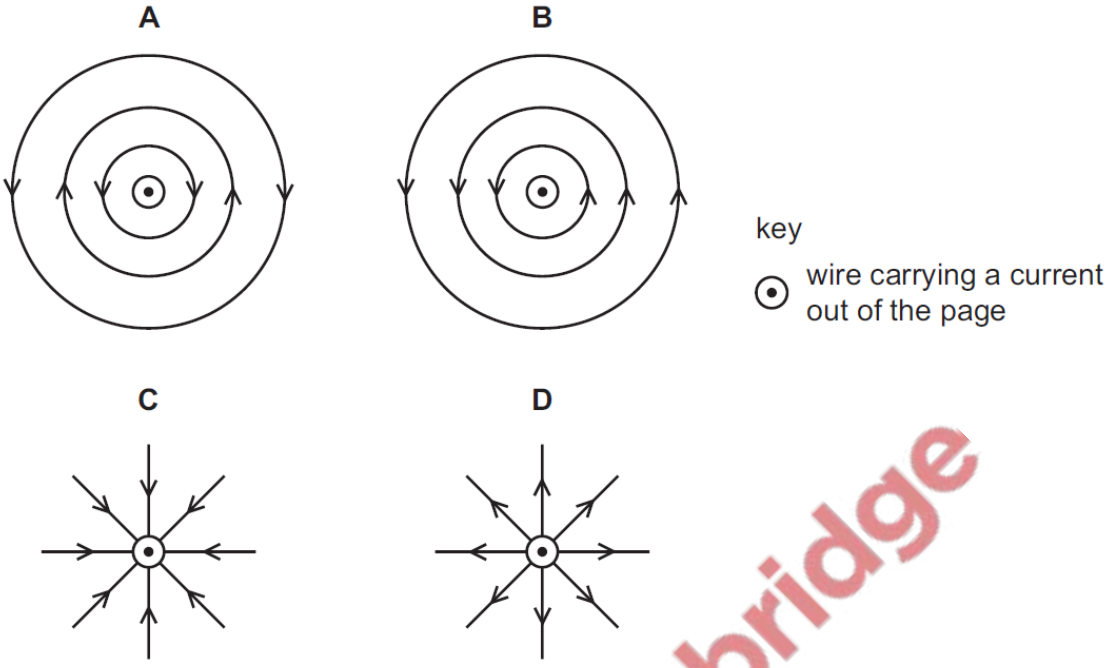
3. 0625/11,21/O/N/19/No.36,35

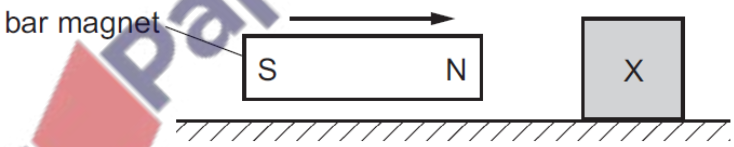
There is a current in a wire. The direction of the current is out of the page.

Which diagram shows the magnetic field pattern produced?



4. 0625/12/O/N/19/No.27

A bar magnet is slowly moved towards an unmagnetised metal object X.



When it is a few centimetres away, the object begins to slide towards the magnet.

Why does this happen?

A X is a non-magnetic material and magnetism is induced in it.

B X is a non-magnetic material and magnetism is not induced in it.

C X is a magnetic material and magnetism is induced in it.

D X is a magnetic material and magnetism is not induced in it.

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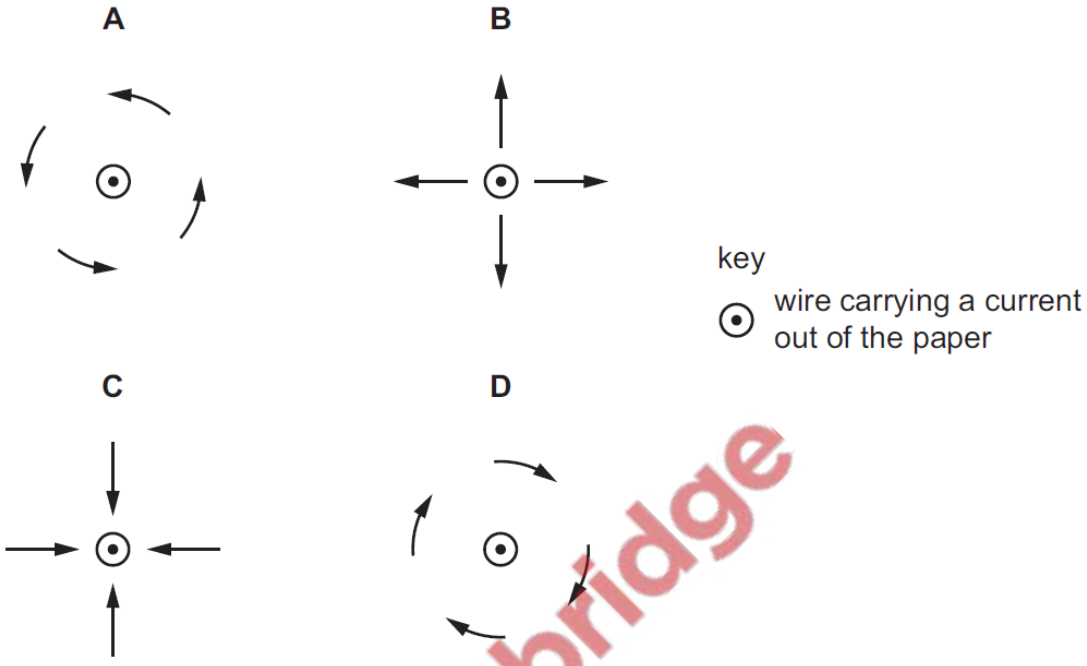
5. 0625/12/O/N/19/No.36

The diagram shows a conductor carrying current in a direction out of the plane of the page.

Which set of arrows represents the direction of the magnetic field due to this current?

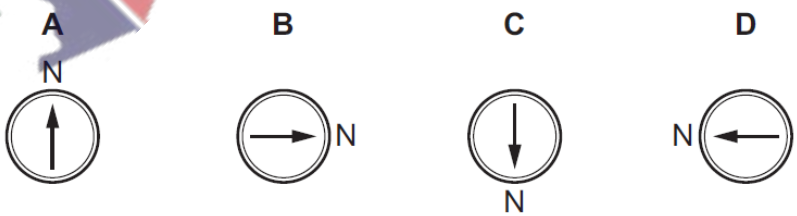


6. 0625/13/O/N/19/No.27

The diagram represents a magnetic field. The field increases in strength from left to right.

A small compass is placed at P.

Which way will the compass needle point?



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7. 0625/21,22,23/O/N/19/No.26,27,26

A steel bar is placed in an East-West direction for it to be demagnetised. No other magnet is nearby.

Which method is **not** suitable?

A Hammering the bar.

B Heating the bar to a very high temperature.

C Slowly taking the bar out of a coil that carries an alternating current.

D Slowly taking the bar out of a coil that carries a direct current.

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