Electromagnetism – 2019 June

1. 0625/11/M/J/19/No.28

Why is soft iron used for the core of an electromagnet?

A Soft iron easily becomes a permanent magnet.

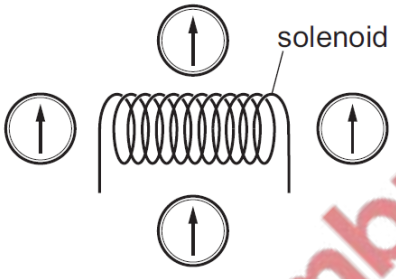
B Soft iron is a good electrical conductor.

C Soft iron is a poor thermal conductor.

D Soft iron loses its magnetism when the current in the coil is switched off.

2. 0625/11/M/J/19/No.37

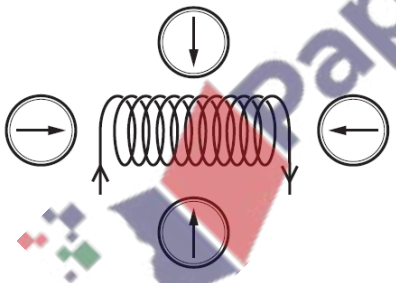
Four small compasses are placed around a solenoid.



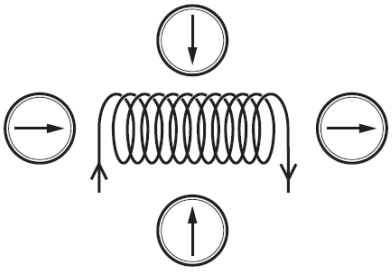
A current is now switched on in the solenoid.

Which diagram shows possible new directions of the compass needles?

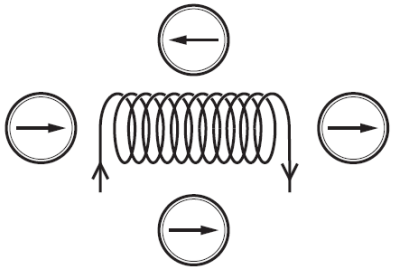
A



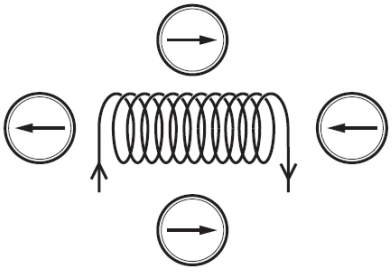
B



C



D



3. 0625/13,23/M/J/19/No.28,26

A metal bar is placed inside a current-carrying coil, as shown in diagram 1.

There is a small current in the coil. The bar holds a few nails, as shown in diagram 2.

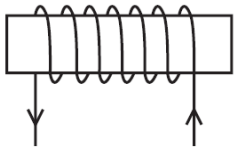


diagram 1

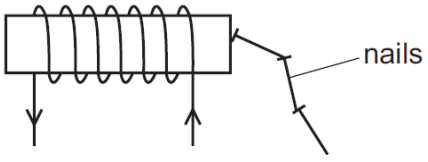


diagram 2

When there is no current in the coil, the nails drop off.

Which row is correct?

	metal from which the bar is made	effect of a larger current in the coil
A	soft iron	it makes no difference
B	soft iron	the bar holds more nails
C	steel	it makes no difference
D	steel	the bar holds more nails