Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic: Magnetism And Electromagnetism (Low Demand Questions)

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Name of the Student:_____
Max. Marks : 17 Marks **Time : 17 Minutes**

Q1.

Magnetic force is a non-contact force.

(a) Which **two** of these are also non-contact forces?

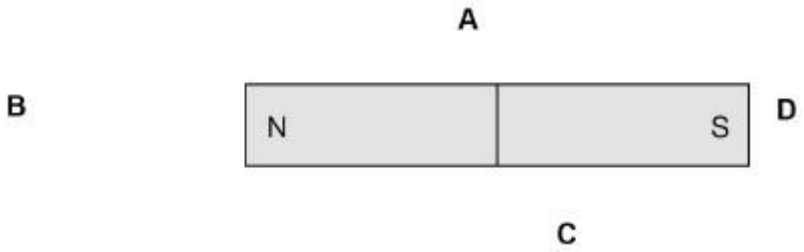
Tick (✓) **two** boxes.

- Air resistance ☐
- Electrostatic ☐
- Friction ☐
- Gravitational ☐
- Tension ☐

(2)

(b) **Figure 1** shows a bar magnet.

Figure 1



Which letter shows the position where the magnetic field around the bar magnet is strongest?

Tick (✓) **one** box.

A ☐ **B** ☐ **C** ☐ **D** ☐

(1)

(c) When two magnets are brought close to each other they exert a force on each other.

Describe how two bar magnets can be used to demonstrate a force of attraction and a force of repulsion.

Force of attraction _____

_____

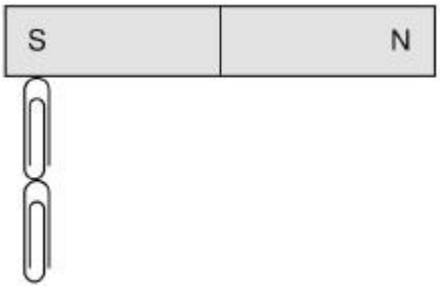
Force of repulsion _____

_____

(2)

Figure 2 shows some paper clips that are attracted to a permanent magnet.

Figure 2



(d) The paperclips become magnetised when they are close to the permanent magnet.

What is the name of this type of magnetism?

Tick (✓) **one** box.

Forced magnetism ☐

Induced magnetism ☐

Strong magnetism ☐

(1)

(e) Label the north and south poles of the two magnetised paper clips in **Figure 2**.

(2)

(Total 8 marks)

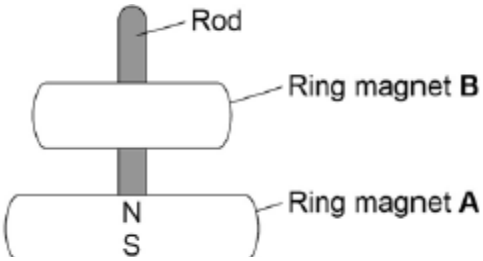
Q2.

A magnetic toy uses ring-shaped magnets.

Look at **Figure 1**.

The magnets can move up and down the rod. Ring magnet **B** appears to float.

Figure 1



(a) The magnetic poles are labelled on ring magnet **A**.

Label the magnetic poles on ring magnet **B**.

(1)

(b) What would happen if ring magnet **B** was turned upside down?

_____

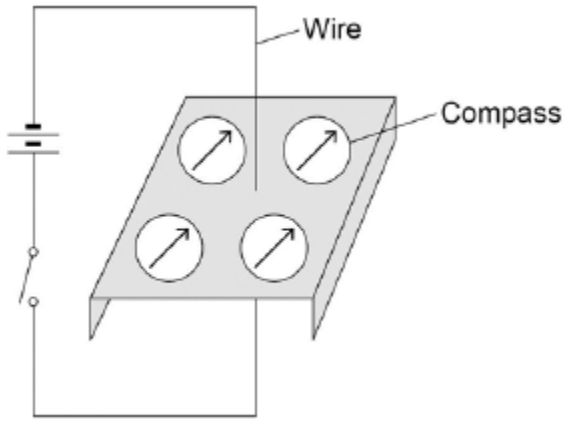
_____

(1)

(c) **Figure 2** shows four plotting compasses arranged around a wire.

The needle of a compass is a magnet.

Figure 2



In **Figure 2** the switch is open and there is no current in the wire.

Explain why the compass needles all point in the same direction.

_____

_____

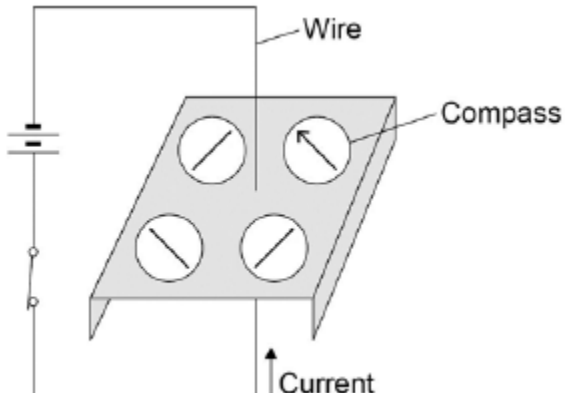
_____

_____

(2)

(d) **Figure 3** shows the switch closed.

Figure 3



There is now a current in the wire.

The compass needles change direction.

On **Figure 3** draw arrowheads on the three incomplete compass needles to show their direction.

(1)

(e) What would happen to the direction of the compass needles if the current was reversed?

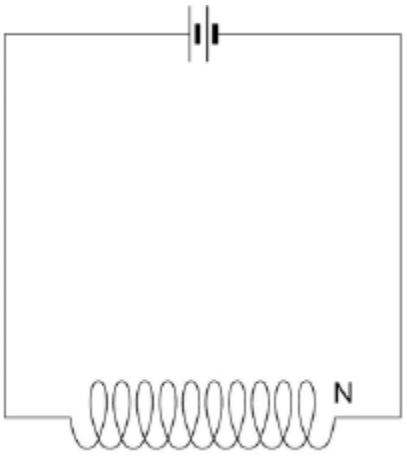
_____

_____

(1)

(f) **Figure 4** shows a coil of wire in a circuit.

Figure 4



On **Figure 4** draw the magnetic field due to the current in the coil.

(3)

(Total 9 marks)