

Simple Phenomena of Magnesium

Question Paper 1

Level	IGCSE
Subject	Physics (0625/0972)
Exam Board	Cambridge International Examinations (CIE)
Topic	General Physics
Sub-Topic	Simple Phenomena of Magnesium
Booklet	Question Paper 1

Time allowed: 16 minutes

Score: /13

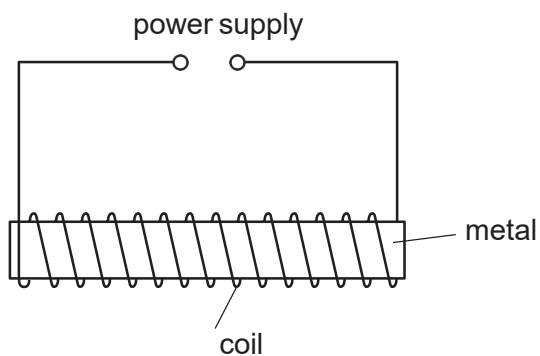
Percentage: /100

Grade Boundaries:

9	8	7	6	5	4	3	2	1
>85%	75%	68%	60%	55%	50%	43%	35%	<30%

Question 1

The diagram shows apparatus that can be used to make a magnet.

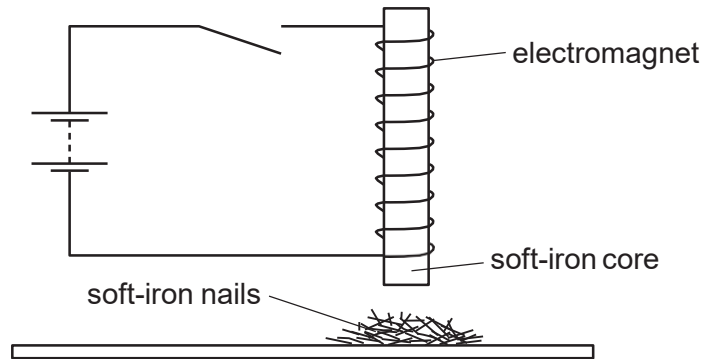


Which metal and which power supply are used to make a **permanent** magnet?

	metal	power supply
A	iron	6Va.c.
B	iron	6Vd.c.
C	steel	6Va.c.
D	steel	6Vd.c.

Question 2

An electromagnet with a soft-iron core is connected to a battery and an open switch. The soft-iron core is just above some small soft-iron nails.



The switch is now closed, left closed for a few seconds, and then opened.

What do the soft-iron nails do as the switch is closed, and what do they do when the switch is then opened?

	as switch is closed	as switch is opened
A	nails jump up	nails fall down
B	nails jump up	nails stay up
C	nails stay down	nails jump up
D	nails stay down	nails stay down

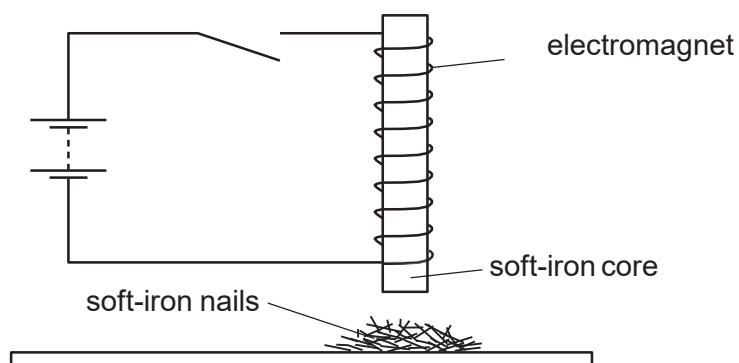
Question 3

Which group contains only non-ferrous metals?

- A. aluminium, brass, iron
- B. brass, copper, lead
- C. copper, iron, steel
- D. copper, lead, steel

Question 4

An electromagnet with a soft-iron core is connected to a battery and an open switch. The soft-iron core is just above some small soft-iron nails.



The switch is now closed, left closed for a few seconds, and then opened.

What do the soft-iron nails do as the switch is closed, and what do they do when the switch is then opened?

	as switch is closed	as switch is opened
A	nails jump up	nails fall down
B	nails jump up	nails stay up
C	nails stay down	nails jump up
D	nails stay down	nails stay down

Question 5

Which action will demagnetise a magnetised piece of steel?

- A. Cool it in a freezer for several hours.
- B. Hit it repeatedly with a hammer.
- C. Put it in a coil carrying a direct current (d.c.).
- D. Put it near an unmagnetised piece of iron.

Question 6

Which row states whether each metal is ferrous or non-ferrous?

	ferrous	non-ferrous
A	aluminium	copper
B	copper	iron
C	iron	steel
D	steel	aluminium

Question 7

Which procedure may be used to demagnetise a steel bar?

- A. cooling it in a freezer for several hours
- B. earthing it with a copper wire for several seconds
- C. removing it slowly from a coil carrying an alternating current (a.c.)
- D. rubbing it in one direction with a woollen cloth

Question 8

Which statement about a permanent bar magnet is correct?

- A. It is made from a soft magnetic material.
- B. It repels a non-magnetic material.
- C. Its field lines cross each other where the magnetic field is strong.
- D. Its N-pole repels the N-pole of another magnet.

Question 9

Which metal could be used for a permanent magnet and which metal could be used for the core of an electromagnet?

	permanent magnet	core of electromagnet
A	iron	copper
B	iron	steel
C	steel	copper
D	steel	iron

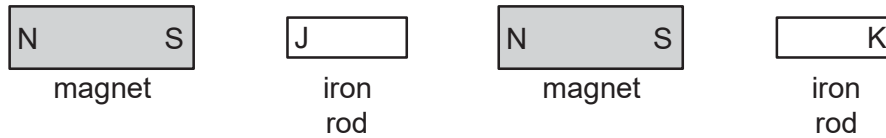
Question 10

Which metal is suitable to use to make a permanent magnet?

- A. aluminium
- B. brass
- C. iron
- D. steel

Question 11

The diagram shows two magnets and two iron rods placed in a line.



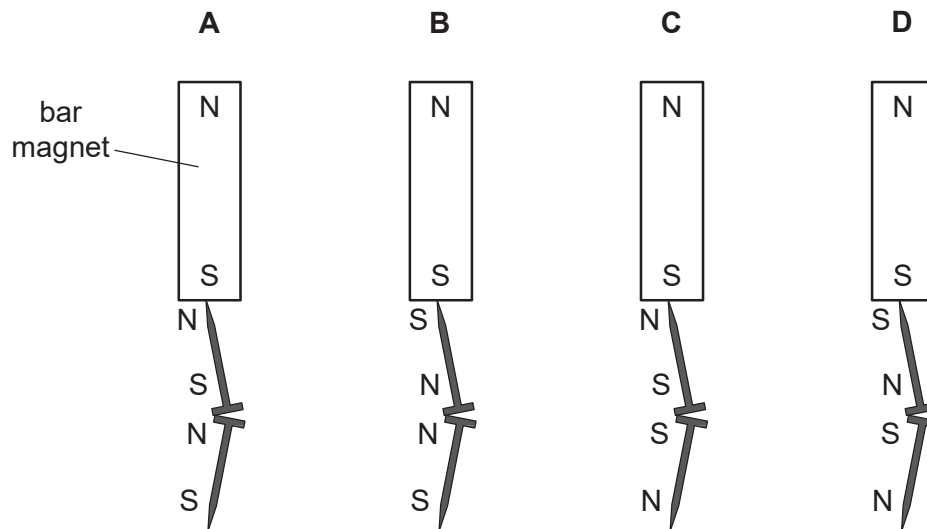
Which magnetic poles are induced at the ends J and K of the iron rods?

	pole induced at end J	pole induced at end K
A	N	N
B	N	S
C	S	N
D	S	S

Question 12

Two iron nails hang from a bar magnet.

Which diagram shows the magnetic poles induced in the nails?



Question 13

Which row correctly shows whether copper and steel are ferrous or non-ferrous?

	copper	steel
A	ferrous	ferrous
B	ferrous	non-ferrous
C	non-ferrous	ferrous
D	non-ferrous	non-ferrous