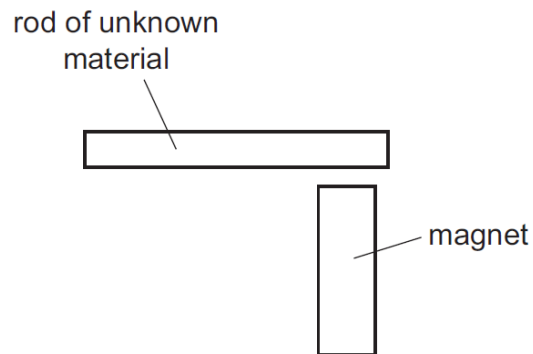


1. Nov/2021/QPaper_11/No.25

A bar magnet is brought near to a rod of unknown material.

The unknown rod is attracted to both ends of the bar magnet.



Which material is the bar made from?

- A aluminium
- B magnetised steel
- C unmagnetised iron
- D plastic

2. Nov/2021/QPaper_12/No.25

Which material is magnetic?

- A aluminium
- B copper
- C iron
- D silver

3. Nov/2021/QPaper_13/No.25

What would be the least successful method of magnetising a steel bar?

- A Insert the bar in a coil with a large direct current (d.c.).
- B Place the bar at right angles to a weak magnetic field and hit it with a hammer.
- C Place the bar parallel to a strong magnetic field, heat it and let it cool.
- D Stroke the bar with a magnet.

(a) Fig. 8.1 shows the magnetic field pattern around a bar magnet.

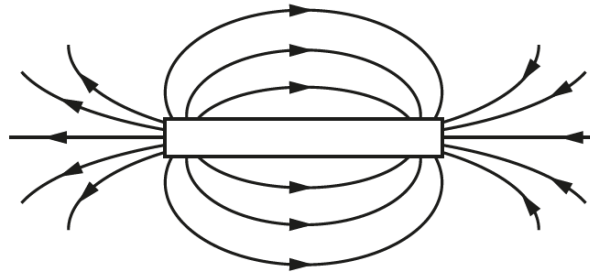


Fig. 8.1

(i) On Fig. 8.1, label the north and south poles of the magnet, using the letters N and S. [1]

(ii) A soft-iron bar is positioned as shown in Fig. 8.2.

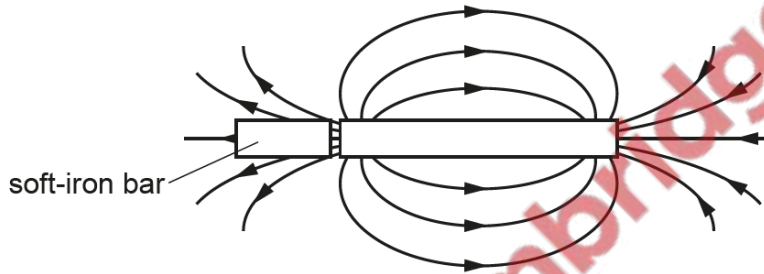


Fig. 8.2

State and explain what happens to the soft-iron bar.

.....
.....
..... [3]

(b) (i) A plastic rod is rubbed with a cloth. The plastic rod becomes positively charged.

Explain how the friction between the cloth and the rod causes the rod to become positively charged.

Use your ideas about the movement of charge.

.....
..... [2]

(ii) Plastic is an electrical insulator. Iron is an electrical conductor.

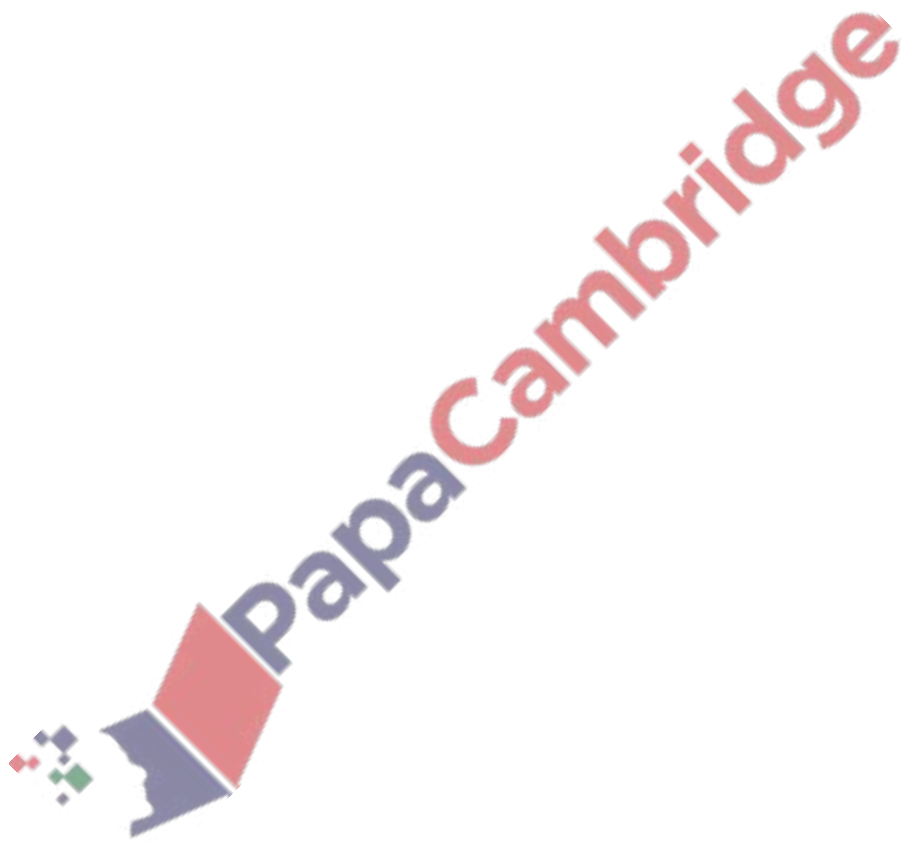
State **two** other materials that are electrical conductors.

1

2

[1]

[Total: 7]



5. Nov/2021/QPaper_32/No.6

(a) A girl has eight objects made of different materials.

The materials have different electrical and magnetic properties.

- a piece of copper wire a sheet of aluminium foil a glass rod an iron nail**
a piece of cotton cloth a wooden block a plastic strip a paper bag

Complete Table 6.1 by adding **one** object for each property. One is done for you.

Choose objects from the list. Each object may be used once, more than once or not at all.

Table 6.1

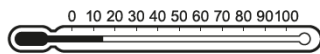
property	object
electrical conductor	
electrical insulator	
non-magnetic material	a wooden block
magnetic material	
can be charged by rubbing with a cloth	

[4]

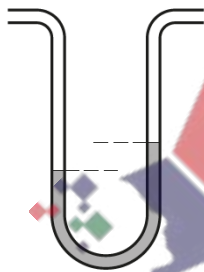
(b) Fig. 6.1 shows three measuring instruments.

Write the name of each measuring instrument next to its diagram.

The measuring instruments are **not** drawn to scale.



.....



.....



.....

Fig. 6.1

[3]

[Total: 7]