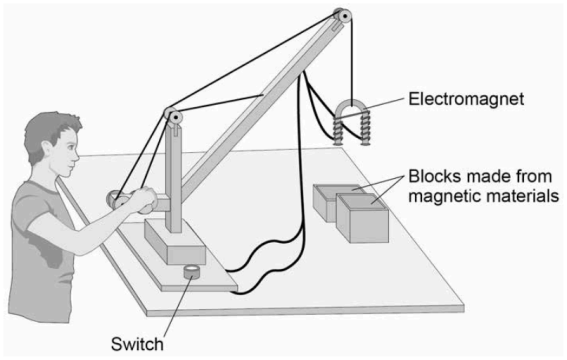
Q1. (2018)

0 2 . 3 **Figure 4** shows a toy crane.

Figure 4



The toy crane uses an electromagnet to pick up and move the blocks.

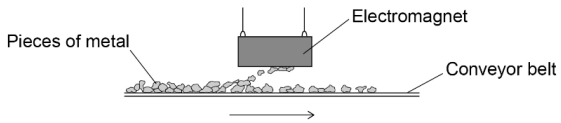
Explain how this electromagnet is able to pick up and move the blocks.

[6 marks]

Q2. (2021)

Figure 5 shows an electromagnet being used to separate iron and steel from non-magnetic metals.

Figure 5



a)

0 4 . 3 Explain **one** reason why an electromagnet is used instead of a permanent magnet.

[2 marks]

b)

0 4 . 4 Pieces of iron and steel are attracted to the electromagnet.

Name **two** other metals that would be attracted to the electromagnet.

[2 marks]

1 _____

2 _____

c)

0 4 . 5 The design of the electromagnet **cannot** be changed.

Give **two** ways the force exerted by the electromagnet on a piece of iron or steel could be increased.

[2 marks]

1 _____

_____

2 _____

_____